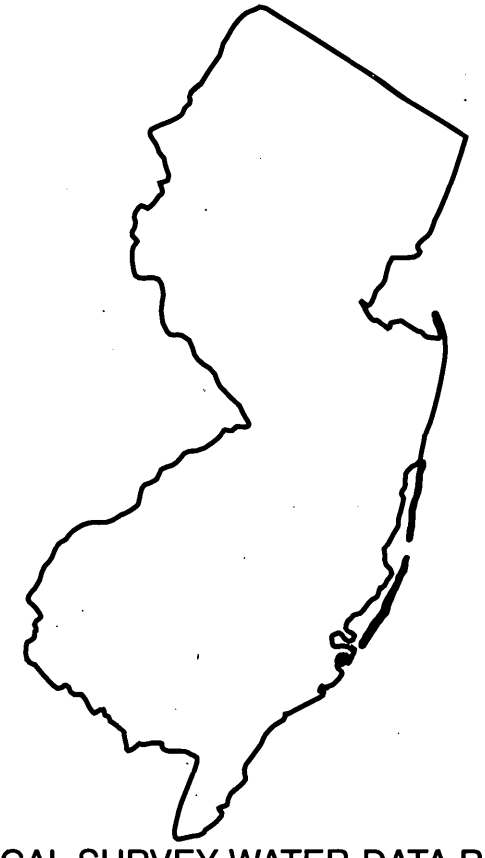
Water Resources Data New Jersey Water Year 1992

Volume 1. Surface-Water Data

by W.R. Bauersfeld, E.W. Moshinsky, and C.E. Gurney



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-92-1
Prepared in cooperation with the New Jersey Department
of Environmental Protection and Energy and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

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1993

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 streamflow, ground-water levels, and 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 2 volumes:

Volume 1. Surface-Water Data
Volume 2. Ground-Water 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 Geological Survey policy and established guidelines. The following individuals contributed significantly to the completion of the report.

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

16. Abstract (Limit: 200 words)

Water resources data for the 1992 water year for New Jersey consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume of the report contains discharge records for 99 gaging stations; tide summaries for 2 stations; stage and contents for 37 lakes and reservoirs; water quality for 95 surface-water sites. Also included are data for 65 crest-stage partial-record stations, 13 tidal crest-stage gages, and 94 low-flow partial-record stations. Locations of these sites are shown on Figures 11 and 12. Additional water data were collected at various sites not involved in the systematic data-collection program. Miscellaneous data were collected at 42 measuring sites and 9 water-quality sampling sites. These data represent that part of the National Water Data System operated by U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

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

Note.--Data for partial-record stations and miscellaneous sites for both surface-water discharge and quality are published in separate sections of the data report. See references at the end of this list for page numbers for these sections.

[Letter after station name designates type of data: (d) discharge, (c) chemical, (m) microbiological, (s) sediment, (t) water temperature, (e) elevation, gage height or contents]

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

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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge stations in New Jersey have been discontinued. Daily streamflow records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

Discontinued Surface-Water Discharge Stations

Station name	Station number	Drainage area (mi^2)	Period of record
Wallkill River near Unionville, NY	01368000	140	1938-81
Auxiliary outlet of Upper Greenwood Lake at Moe, NJ	01368720	----	1968-80a
Passaic River near Bernardsville, NJ	01378690*	8.83	1968-77
Russia Brook tributary at Milton, NJ	01379630	2.51	1969-71
Beaver Brook at Splitrock Reservoir, NJ	01380000	5.50	1925-46, 1976-88a
Wanaque River at Monks, NJ	01384000	40.4	1935-85
Cupsaw Brook near Wanaque, NJ	01385000	4.37	1935-58
Erskine Brook near Wanaque, NJ	01385500	1.14	1934-38
West Brook near Wanaque, NJ	01386000	11.8	1935-78
Blue Mine Brook near Wanaque, NJ	01386500	1.01	1935-58
Passaic River at Paterson, NJ	01389800	785	1897-1955
Weasel Brook at Clifton, NJ	01392000	4.45	1937-62
Second River at Belleville, NJ	01392500*	11.6	1938-64
Elizabeth River at Irvington, NJ	01393000	2.90	1931-38
Elizabeth River at Elizabeth, NJ	01393500	20.2	1922-73
East Fork East Branch Rahway River at West Orange, NJ	01393800	.83	1972-74
West Branch Rahway River at Millburn, NJ	01394000	7.10	1940-50
Robinsons Branch Rahway River at Goodmans, NJ	01395500	12.7	1921-24
Walnut Brook near Flemington, NJ	01397500*	2.24	1936-61
Back Brook tributary near Ringoes, NJ	01398045*	1.98	1977-88
North Branch Raritan River at Pluckimen, NJ	01399000	52.0	1903-06
Lamington (Black) River at Succasunna, NJ	01399190	7.37	1976-87
Lamington (Black) River near Ironia, NJ	01399200	10.9	1975-87
Axle Brook near Pottersville, NJ	01399525*	1.22	1977-88
South Branch Rockaway Creek at Whitehouse, NJ	01399690	13.2	1964-67, 1977-86
North Branch Raritan River at North Branch, NJ	01399830*	174	1977-81
Millstone River at Plainsboro, NJ	01400730*	65.8	1964-75, 1987-89
Baldwins Creek at Baldwin Lake, near Pennington, NJ	01400932	2.52	1963-70
Honey Branch near Pennington, NJ	01400953	.70	1967-75
Millstone River at Carnegie Lake, at Princeton, NJ	01401301*	159	1972-74, 1987-89
Millstone River near Kingston, NJ	01401500	171	1934-49
Royce Brook tributary at Frankfort, NJ	01402590	.29	1969-74
Raritan River at Bound Brook, NJ	01403000	779	1903-09, 1945-66
Green Brook at Plainfield, NJ	01403500*	9.75	1938-84
Bound Brook at Middlesex, NJ	01403900*	48.4	1972-77
Bound Brook at Bound Brook, NJ	01404000	49.0	1923-30
Lawrence Brook at Patricks Corner, NJ	01404500	29.0	1922-26
Lawrence Brook at Farrington Dam, NJ	01405000*	34.4	1927-90
Matchaponix Brook at Spotswood, NJ	01405300	43.9	1957-67
South River at Old Bridge, NJ	01405500	94.6	1939-88

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record
Deep Run near Browntown, NJ	01406000	8.07	1932-40
Tennent Brook near Browntown, NJ	01406500	5.25	1932-41
Matawan Creek at Matawan, NJ	01407000	6.11	1932-55
South Branch Metedeconk River at Lakewood, NJ	01408140	26.0	1973-76
Cedar Creek at Lanoka Harbor, NJ	01409000	55.3	1933-58, 1971
Oyster Creek near Brookville, NJ	01409095	7.43	1965-84
Westecunk Creek at Stafford Forge, NJ	01409280	15.8	1974-88
Absecon Creek at Absecon, NJ	01410500	17.9	1946-85
Great Egg Harbor River tributary at Sicklerville, NJ	01410787	1.64	1972-79
Fourmile Branch at New Brooklyn, NJ	01410810*	7.74	1973-79
Great Egg Harbor River near Blue Anchor, NJ	01410820	37.3	1972-79
Menantico Creek near Millville, NJ	01412000*	23.2	1931-57, 1978-85
West Branch Cohansey River at Seeley, NJ	01412500*	2.58	1951-67
Cohansey River at Seeley, NJ	01412800*	28.0	1978-88
Loper Run near Bridgeton, NJ	01413000	2.34	1937-59
Paulins Kill at Columbia, NJ	01444000	179	1908-09
Pequest River at Huntsville, NJ	01445000*	31.0	1940-62
Pequest River at Townsbury, NJ	01445430*	92.5	1977-80
Beaver Brook near Belvidere, NJ	01446000*	36.7	1923-61
Brass Castle Creek near Washington, NJ	01455160	2.34	1970-83a
Pohatcong Creek at New Village, NJ	01455200*	33.3	1960-70
Beaver Brook near Weldon, NJ	01455355	1.72	1969-71
Musconetcong River at outlet of Lake Hopatcong, NJ	01455500*	25.3	1928-75
Musconetcong River near Hackettstown, NJ	01456000*	68.9	1922-74
Delaware River at Riegelsville, NJ	01457500*	6328	1906-71
Delaware and Raritan Canal at Kingston, NJ	01460500	---	1947-91
Delaware River at Lambertville, NJ	01462000	6680	1898-06
New Sharon Run at Carsons Mills, NJ	01463587	6.63	1976-77
Shipetaukin Creek tributary at Lawrenceville, NJ	01463657	.78	1976-77
Little Shabakunk Creek at Bakersville, NJ	01463690	3.98	1976-77
Thorton Creek at Bordentown, NJ	01464525	.84	1976-77
South Branch Rancocas Creek at Vincentown, NJ	01465850*	64.5	1961-75
Middle Branch Mount Misery Brook in Lebanon State Forest, NJ	01466000	2.82	1953-65, 1977
Mill Creek near Willingboro, NJ	01467019	4.12	1975-78
Mill Creek at Levitt Parkway, at Willingboro, NJ	01467021	9.12	1975-77
Mantua Creek at Pitman, NJ	01475000*	6.05	1940-76
Still Run near Mickleton, NJ	01476600	3.98	1957-66
Oldmans Creek near Woodstown, NJ	01477500	18.5	1932-40
Salem River at Woodstown, NJ	01482500*	14.6	1940-85, 1989
Alloway Creek at Alloway, NJ	01483000	20.3	1953-72

a Not published, on file at U.S. Geological Survey, West Trenton, NJ.

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 near Chatham, NJ	01379500	100	Sed.	1964-68
			Temp.	1967-68
Green Pond Brook at Picatinny Arsenal, NJ	01379773	7.65	Temp., S.C., pH, D.O.	1984-86
Passaic River at Two Bridges, NJ	01382000	361	Temp., S.C., pH, D.O.	1969-74
Wanaque River at Wanaque, NJ	01387000	90.4	Temp.	1964-80
Ramapo River near Mahwah, NJ	01387500	118	Sed.	1964-65
Pompton River near Two Bridges, NJ	01389000	372	Temp., S.C., pH, D.O.	1969-74
Passaic River at Little Falls, NJ	01389500	762	Sed.	1964-65
			Temp., S.C.	1981-86
South Branch Raritan River near High Bridge, NJ	01396500	65.3	Temp.	1961-79
			S.C.	1969-79
South Branch Raritan River at Stanton, NJ	01397000	147	Temp., S.C.	1969-79
			Sed.	1960-63
South Branch Rockaway Creek at Whitehouse, NJ	01399690	13.2	Temp., S.C.	1977-78
			Sed.	1977
Rockaway Creek at Whitehouse, NJ	01399700	37.1	Temp., S.C.	1977-78
Raritan River near Manville, NJ	01400510	497	Temp., S.C., pH, D.O.	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	Sed.	1959-70
Millstone River near Manville, NJ	01402900	287	Temp., S.C., pH, D.O.	1968-74
Raritan River near South Bound Brook, NJ	01404100	862	Temp., S.C., pH, D.O.	1969-77
Manasquan River at Squankum, NJ	01408000	44	Temp., S.C., pH, D.O.	1969-74
Toms River near Toms River, NJ	01408500	123	Temp.,	1964-66, 1975-81
			S.C.	1975-81
Oyster Creek near Brookville, NJ	01409095	7.43	Temp., D.O.	1975-76
			S.C., pH	1975-77
West Branch Wading River near Jenkins, NJ	01409810	84.1	Temp., S.C.	1978-81
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	57.1	Temp.	1961-80
Maurice River at Norma, NJ	01411500	112	Temp., S.C.	1980-86
Delaware River near Delaware Water Gap, Pa.	01440200	3850	Sed.	1964-65, 1972
Delaware River at Dunnfield, NJ	01442750	4150	Sed.	1966-76
Delaware River at Trenton, NJ	01463500	6780	Sed.	1949-82
Delaware River at Marine Terminal, at Trenton, NJ	01464040	6870	Temp., S.C.	1973-76
Crosswicks Creek near Extonville, NJ	01464500	81.5	Sed.	1965-70
Rancocas Creek at Willingboro, NJ	01467016	315	Temp., S.C.,	1969-74
			D.O.	1970-72
			pH	1970-74
Cooper River at Haddonfield, NJ	01467150	17.0	Sed.	1968-69
Raccoon Creek near Swedesboro, NJ	01477120	26.9	Temp.	1966-73
			Sed.	1966-69

Type of record: Temp. (temperature), S.C. (specific conductance), pH (pH), D.O. (dissolved oxygen), Sed. (sediment).

DISCONTINUED LOW-FLOW STATIONS

The following low-flow parial-record stations in New Jersey have been discontinued. Stream flow measurements were made during periods of base-flow, for the period of record shown for each station. These measurements, when correlated with the concurrent daily discharges at nearby continuous-record sites, will give a picture of the low-flow potentiality of a stream.

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Wallkill River at outlet Lake Mohawk at Sparta, NJ	01367620	4.38	1979-86
Wallkill River at Franklin, NJ	01367700	29.4	1959-64, 1982-83, 1985, 1987-90
Beaver Run near Hamburg, NJ	01367750	5.59	1966-72
Papakating Creek at Pellettown, NJ	01367800	15.8	1959-64
West Branch Papakating Creek at McCoys Corner, NJ	01367850	11.0	1967-72
Clove Brook above Clove Acre Lake at Sussex, NJ	01367890	19.2	1967-72
Clove Brook at Sussex, NJ	01367900	19.7	1959-64
Black Creek near Vernon, NJ	01368950	17.3	1977-86, 1988, 1990-91
Musquapsink Brook near Westwood, NJ	01377475	2.12	1964-72, 1975, 1978, 1981-86
Tenakill Brook at Cresskill, NJ	01378350	3.01	1964-73, 1975
Dwars Kill at Norwood, NJ	01378410	4.23	1973-80
Norwood Brook at Norwood, NJ	01378430	2.03	1973-80
Hirshfeld Brook at New Milford, NJ	01378520	4.54	1965-72
French Brook at New Bridge, NJ	01378530	.46	1965-72
Coles Brook at Hackensack, NJ	01378560	7.00	1965-72
Metzler Brook at Englewood, NJ	01378590	1.54	1964-72, 1991-92
Wolf Creek at Ridgewood, NJ	01378615	1.18	1964-72
Passaic River at outlet of Osborn Pond, at Osborn Mill, NJ	01378700	10.1	1961-68
Great Brook at Green Village, NJ	01378750	7.92	1961-65
Primrose Brook near New Vernon, NJ	01378800	4.68	1961-65
Great Brook near Basking Ridge, NJ	01378850	23.1	1961-65
Black Brook near Meyersville, NJ	01378900	11.7	1959-63
Harrisons Brook at Liberty Corner, NJ	01379150	3.74	1964-67
Dead River near Millington, NJ	01379200	20.8	1961-67, 1973-75, 1986-89
Passaic River at Stirling, NJ	01379300	84.1	1968-70, 1972-73, 1983-84
Passaic River at Lower Chatham Bridge, near Chatham, NJ	01379550	116.0	1964, 1984, 1988-89
Passaic River at Hanover, NJ	01379570	128.0	1963-66, 1973, 1987-89
Rockaway River at Dover, NJ	01379750	30.8	1963-66, 1983-86
Hibernia Brook at outlet of Lake Telemark, NJ	01380050	2.53	1966-72
Stony Brook near Rockaway Valley, NJ	01380300	8.43	1963-67, 1985-86
Crooked Brook near Boonton, NJ	01381150	7.86	1963-66
Whippany River near Morristown, NJ	01381400	14.0	1964-72
Jacquis Brook at Greystone Park State Hospital, NJ	01381470	1.39	1967-73
Watnong Brook at Morris Plains NJ	01381490	7.77	1966-72
Whippany River near Whippany, NJ	01381600	48.5	1963-66, 1973
Troy Brook at Troy Hills, NJ	01381700	10.1	1961-66, 1972-73
West Brook at Troy Hills, NJ	01381750	1.32	1961-66
Pequannock River near Stockholm, NJ	01382050	5.39	1959-64
Kanouse Brook at Newfoundland, NJ	01382360	3.87	1963-67
Macopin River at Macopin Reservoir, NJ	01382450	5.25	1970-73

DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Belcher Creek at Stowaway Road, at West Milford, NJ	01382870	2.44	1973-77
Belcher Creek tributary at West Milford, NJ	01382880	.61	1973-77
Belcher Creek at West Milford, NJ	01382890	7.27	1973-77
Morsetown Brook at West Milford, NJ	01382910	1.31	1973-77
Green Brook near West Milford, NJ	01382960	1.47	1973-77
Cooley Brook near West Milford, NJ	01382990	1.34	1973-77
Stag Brook near Mahwah, NJ	01387520	1.35	1963-70, 1972
Darlington Brook at Darlington, NJ	01387600	3.38	1963-67
Ramapo River near Darlington, NJ	01387670	131	1963-66, 1982-83
Bear Swamp Brook near Oakland, NJ	01387700	3.25	1963-67
Ramapo River tributary 5 at Oakland, NJ	01387930	.86	1963-67
Ramapo River tributary 6 at Pompton Plains, NJ	01387950	1.79	1963-67
Haycock Brook at Pompton Lakes, NJ	01387980	4.18	1963-64, 1973-77
Peckman River at West Paterson, NJ	01389600	10.1	1963-67
Goffle Brook at Hawthorne, NJ	01389850	8.77	1963-67
Saddle River at Upper Saddle River, NJ	01390450	10.9	1964-72, 1975
Hohokus Brook at Wyckoff, NJ	01390700	5.31	1963-67
Valentine Brook at Allendale, NJ	01390800	2.48	1963-67
Saddle River at Paramus, NJ	01391110	45.0	1964-69, 1971-72
Sprout Brook at Rochelle Park, NJ	01391485	5.56	1964-72
Third River at Nutley, NJ	01392200	11.4	1963-73
Elizabeth River below Chancellor Ave at Irvington, NJ	01393200	5.14	1955, 1961-62, 1966
South Branch Rahway River at Colonia, NJ	01396030	9.41	1979-86
South Branch Raritan River trib 6 at Budd Lake, NJ	01396070	0.70	1973-77
South Branch Raritan River trib 7 at Budd Lake, NJ	01396080	.21	1973-77
South Branch Raritan River at outlet of Budd Lake, NJ	01396090	5.03	1964, 1973-77, 1980-83
South Branch Raritan River at Bartley, NJ	01396120	12.5	1964-73, 1990
Drakes Brook at Reger Road at Flanders, NJ	01396160	11.6	1965, 1990
Drakes Brook at Bartly, NJ	01396180	16.6	1964-73, 1975-76, 1988-90
South Branch Raritan River at Califon, NJ	01396350	58.5	1975-76, 1989-90
Spruce Run near High Bridge, NJ	01396590	15.5	1973-77
Spruce Run near Clinton, NJ	01396600	18.1	1959-64
Mulhockaway Creek at Van Syckel, NJ	01396670	11.8	1973-77
Mulhockaway Creek near Clinton, NJ	01396700	20.5	1959-64
Capoolong Creek at Lansdowne, NJ	01396900	14.1	1959-65
Prescott Brook at Round Valley, NJ	01397100	4.61	1958-63
Assiscong Creek at Bartles Corners, NJ	01397290	2.98	1981-89
Neshanic River near Flemington, NJ	01397800	11.4	1981-89
Third Neshanic River near Ringoes, NJ	01397900	9.24	1981-89
Back Brook near Reaville, NJ	01398052	11.4	1981-89
Pleasant Run at Centerville, NJ	01398075	8.11	1982-89
India Brook near Mendham, NJ	01398220	4.36	1964-67
Dawsons Brook near Ironia, NJ	01398300	1.04	1964-67
Burnett Brook near Chester, NJ	01398360	6.64	1964-67
Peapack Brook at Gladstone, NJ	01398700	4.23	1964-67

DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi2)	Period of record (water years)
Peapack Brook at Far Hills, NJ	01398850	11.7	1964-67, 1973-76
Mine Brook at Far Hills, NJ	01398950	7.78	1964-67, 1973-76
Middle Brook at Burnt Mills, NJ	01399100	6.67	1964-67, 1976
Lamington River near Chester, NJ	01399280	17.3	1963-64, 1973, 1990
Cold Brook at Oldwick, NJ	01399540	5.32	1973-76
Rockaway Creek at McCrea Mills, NJ	01399570	17.0	1961-65
South Branch Rockaway Creek tributary at Lebanon, NJ	01399600	1.02	1958, 1960-64
Chambers Brook near North Branch, NJ	01399820	4.71	1964-72
Chambers Brook at North Branch Depot, NJ	01399900	10.2	1959-64, 1976
Millstone River at Applegarth, NJ	01400560	15.0	1960-64, 1971-72
Millstone River at Hightstown, NJ	01400580	19.7	1960-64, 1969-74
Rocky Brook at Hightstown, NJ	01400593	9.58	1965-72
Peddie Brook at Hightstown, NJ	01400596	3.07	1965-72
Millstone River at Locust Corner, NJ	01400600	37.5	1959-64, 1971-72
Millstone River near Grovers Mill, NJ	01400640	42.6	1959-65, 1971-72
Cranbury Brook at Old Church, NJ	01400670	3.69	1960-64
Cranbury Brook at Cranbury Station, NJ	01400700	9.56	1959-64, 1971-72
Bear Brook near Hickory Corner, NJ	01400750	3.46	1960-65
Little Bear Brook at Hickory Corner, NJ	01400770	1.88	1960-64
Bear Brook near Grovers Mill, NJ	01400800	9.52	1959-64
Bear Brook at Princeton Junction, NJ	01400810	12.4	1962-67, 1971-72
Millstone River at Princeton Junction, NJ	01400820	78.5	1960-61
Woodsville Brook at Woodsville, NJ	01400850	1.78	1957-59, 1965-73
Stony Brook at Pennington, NJ	01400947	26.7	1965-72
Honey Branch near Rosedale, NJ	01400970	3.83	1957-59, 1971-72
Stony Brook at Clarksville, NJ	01401100	46.5	1959-64
Duck Pond Run at Clarksville, NJ	01401200	5.21	1954-55, 1960-67
Beden Brook near Hopewell, NJ	01401520	6.67	1965-72
Rock Brook at Blawenburg, NJ	01401590	8.02	1962-67, 1971-72
Pike Run near Rocky Hill, NJ	01401700	22.2	1959-63, 1971-72
Ten Mile Run near Blackwells Mills, NJ	01401800	4.36	1960-64, 1971-72
Six Mile Run at Blackwells Mills, NJ	01401900	16.1	1960-67, 1971-72
Royce Brook at Manville, NJ	01402700	11.7	1960-64
East Branch Middle Brook at Martinsville, NJ	01403100	8.45	1959-64
Bound Brook at South Plainfield, NJ	01403330	9.55	1979-86
Cedar Brook at South Plainfield, NJ	01403350	7.10	1979-86
Ambrose Brook at Middlesex, NJ	01404060	13.9	1979-91
Mill Brook at Highland Park, NJ	01404180	1.41	1979-86
Lawrence Brook at outlet of Davidsons Mill Pond, NJ	01404300	12.2	1973-77
Oakeys Brook near Patricks Corner, NJ	01404400	4.75	1973-77
Beaverdam Brook near Patricks Corner, NJ	01404700	1.51	1973-77
Milford Brook at Englishtown, NJ	01405170	4.86	1982, 1984-91
McGellairds Brook at Englishtown, NJ	01405180	14.9	1982, 1984-91
Pine Brook at Clarks Mills, NJ	01405210	4.66	1982, 1984-91
Matchaponix Brook near Englishtown, NJ	01405240	29.1	1978-88

DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi2)	Period of record (water years)
Barclay Brook near Englishtown, NJ	01405285	4.94	1977-88
Manalapan Brook near Manalapan, NJ	01405335	16.0	1979-88
Manalapan Brook at Bridge Street, at Spotswood, NJ	01405440	43.9	1973-76
Iresick Brook at East Spotswood, NJ	01405470	2.29	1973-77
Hop Brook at Holmdel, NJ	01407200	5.72	1969-74, 1989
Willow Brook at Holmdel, NJ	01407250	6.88	1969-74, 1989
Big Brook at Vanderburg, NJ	01407300	8.41	1969-74, 1989
Yellow Brook at Colts Neck, NJ	01407400	9.71	1969-74, 1989
Mine Brook at Colts Neck, NJ	01407450	5.48	1969-74, 1989
Pine Brook at Tinton Falls, NJ	01407520	12.1	1969-74, 1989
Shark River at Glendola, NJ	01407700	9.14	1956-63, 1966
Wreck Pond Brook near Spring Lake, NJ	01407800	7.00	1956-63, 1966
Debois Creek at Adelphia, NJ	01407860	7.21	1966, 1969-74
Yellow Brook at West Farms, NJ	01407890	3.57	1966, 1969-74
Manasquan River at West Farms, NJ	01407900	33.5	1959-66, 1973
Timber Swamp Creek near Farmingdale, NJ	01407970	3.38	1964-72
Mingamahone Brook at Squankum, NJ	01408020	10.7	1966, 1969-74
North Branch Metedeconk River at Lakewood, NJ	01408100	19.4	1959-63, 1966
Toms River at Whitesville, NJ	01408300	45.2	1959-63, 1966
Union Branch at Lakehurst, NJ	01408440	19.0	1960-64
Manapaqua Brook at Lakehurst, NJ	01408460	6.32	1960-64
Ridgeway Branch near Lakehurst, NJ	01408490	28.2	1959-63
Webbs Mill Branch near Whiting, NJ	01408800	2.92	1973-77
Webbs Mill Branch tributary near Whiting, NJ	01408810	.53	1973-77
North Branch Forked River near Forked River, NJ	01409050	13.4	1961-65
South Branch Forked River near Forked River, NJ	01409080	1.28	1968-74
Oyster Creek near Waretown, NJ	01409100	9.95	1961-65
Mill Creek near Manahawkin, NJ	01409150	10.4	1961-67
Fourmile Branch near Manahawkin, NJ	01409200	5.24	1961-67
Cedar Run near Manahawkin, NJ	01409250	3.34	1961-67
Mill Branch near Tuckerton, NJ	01409300	4.69	1961-67
Mullica River at outlet of Atsion Lake, at Atsion, NJ	01409387	26.7	1980-81, 1985-89
Mullica River tributary near Atsion, NJ	01409395	4.10	1975-77
Wildcat Branch at Chesilhurst, NJ	01409403	1.03	1974-77
Sleeper Branch near Atsion, NJ	01409404	18.2	1975-77
Clark Branch near Atsion, NJ	01409405	7.12	1975-77
Sleeper Branch at Batsto, NJ	01409406	36.1	1975-77
Pump Branch near Blue Anchor, NJ	01409407	6.20	1974-77
Blue Anchor Brook near Blue Anchor, NJ	01409409	3.01	1974-77
Albertson Brook near Hammonton, NJ	01409410	19.3	1975-77
Nescochague Creek at Pleasant Mills, NJ	01409411	43.8	1975-77
Springers Brook near Indian Mills, NJ	01409450	12.6	1959-63, 1977
Springers Brook near Atsion, NJ	01409460	21.2	1975-77
Landing Creek at Philadelphia Ave, at Egg Harbor City, NJ	01409575	4.86	1974-77
West Branch Wading River near Chatsworth, NJ	01409730	44.8	1975-77

DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi2)	Period of record (water years)
Tulpehocken Creek near Jenkins, NJ	01409780	21.9	1975-77
West Branch Wading River near Harrisville, NJ	01409800	83.9	1957-63
Oswego River at Oswego Lake, NJ	01409970	61.4	1975-77
West Branch Bass River near New Gretna, NJ	01410200	6.54	1969-74
Great Egg Harbor River at Berlin, NJ	01410775	1.88	1964-74
Great Egg Harbor River near Sicklerville, NJ	01410784	15.1	1971-77
Fourmile Branch near Williamstown, NJ	01410800	5.34	1959-64, 1971
Penny Pot Stream near Folsom, NJ	01411020	5.35	1968-72
Hospitality Branch at Berryland, NJ	01411053	20.0	1976-86
Deep Run at Weymouth, NJ	01411140	20.0	1976-86
Babcock Creek at Mays Landing, NJ	01411200	20.0	1959-63
Fishing Creek at Rio Grande, NJ	01411400	2.29	1965-72
Green Creek at Green Creek, NJ	01411404	2.49	1965-72
Bidwell Creek tributary near Cape May Court House, NJ	01411410	.41	1967-73
Bidwell Creek tributary 2 near Cape May Court House, NJ	01411412	.19	1967-72
Goshen Creek at Goshen, NJ	01411418	.33	1967-72
Sluice Creek at Clermont, NJ	01411430	.67	1967-72, 1990-91
Still Run at Aura, NJ	01411450	3.21	1976-90
Scotland Run at Franklinville, NJ	01411462	14.8	1976-90
Muddy Run at Centerton, NJ	01411700	37.7	1976-84
Maurice River near Millville, NJ	01411800	191.0	1966-72
Mill Creek near Millville, NJ	01411850	15.1	1973-79
Buckshutem Creek near Laurel Lake, NJ	01411950	16.1	1976-84
Manumuskin River near Manumuskin, NJ	01412100	32.1	1964-71
Muskee River near Port Elizabeth, NJ	01412120	13.1	1969, 1976-84
Cohansey River near Beals Mill, NJ	01412405	9.44	1976-84
Barrett Run near Bridgeton, NJ	01413010	7.02	1966, 1976-84
Indian Fields Branch at Bridgeton, NJ	01413020	4.64	1976-84
Stow Creek at Jericho, NJ	01413050	8.00	1966-74
Canton Ditch near Canton, NJ	01413060	2.50	1959-63
Raccoon Ditch at Davis Mill, NJ	01413080	3.19	1976-84
Shimers Brook near Montague, NJ	01438400	7.07	1988-64
Big Flat Brook near Hainesville, NJ	01439800	22.6	1959-64, 1966
Big Flat Brook at Tuttles Corner, NJ	01439830	28.2	1963, 1970-73
Little Flat Brook at Hainesville, NJ	01439900	7.73	1959-64
Vancampens Brook near Millbrook, NJ	01440100	7.27	1958-68
Stony Brook near Columbia, NJ	01442800	3.51	1958-68
Paulins Kill at Lafayette, NJ	01443300	33.0	1959-64, 1966
Culvers Creek at Branchville, NJ	01443400	11.2	1959-64
Paulins Kill near Newton, NJ	01443450	69.0	1973-77
Paulins Kill at Paulins Kill, NJ	01443460	72.9	1973-77
Trout Brook near Middletown, NJ	01443475	24.0	1979-89
Furnace Brook at Oxford, NJ	01445490	4.29	1965-69, 1971-72
Honey Run near Ramseysburg, NJ	01445800	2.21	1982-90
Honey Run near Hope, NJ	01445900	10.3	1966-72

DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi2)	Period of record (water years)
Pohatcong Creek at Carpentersville, NJ	01455300	57.1	1932, 1952-64
Weldon Brook near Woodport, NJ	01455350	3.27	1965-69, 1971-72
Beaver Brook near Woodport, NJ	01455360	2.79	1966-72
Weldon Brook at Hurdtown, NJ	01455370	8.10	1973-77
Musconetcong River at Stanhope, NJ	01455550	29.7	1973-76
Lubbers Run at Lockwood, NJ	01455780	16.3	1982-90
Hatchery Brook at Hackettstown, NJ	01456100	1.81	1966-72
Hakihokake Creek at Milford, NJ	01458100	17.2	1944, 1958-64
Harihokake Creek near Frenchtown, NJ	01458400	9.75	1944, 1958-65
Nishisakawick Creek at Frenchtown, NJ	01458600	12.3	1958-64
Little Nishisakawick Creek at Frenchtown, NJ	01458700	3.50	1958-65
Lockatong Creek near Raven Rock, NJ	01460900	23.2	1944, 1958-64
Alexauken Creek near Lambertville, NJ	01461900	14.9	1944, 1958-64
Moore Creek near Titusville, NJ	01462200	10.2	1958-64
Jacobs Creek at Somerset, NJ	01462800	13.3	1957-64
Shipetaukin Creek at Lawrenceville, NJ	01463650	4.48	1963-67
Shipetaukin Creek at Bakersville, NJ	01463670	8.96	1963-67
Shabakunk Creek at Ewingville, NJ	01463750	5.00	1963-67
West Branch Shabakunk Creek near Ewingville, NJ	01463790	4.56	1963-72
Miry Run at Robbinsville, NJ	01463830	4.02	1963-67
Miry Run at Mercerville, NJ	01463860	12.4	1963-67
Pond Run at Trenton, NJ	01463980	8.94	1963-69, 1971-72
Crosswicks Creek near Cookstown, NJ	01464300	21.2	1966, 1969-74
North Run at Cookstown, NJ	01464380	7.17	1966, 1969-74
Lahaway Creek near Hornerstown, NJ	01464460	21.4	1966, 1969-74
Miry Run at Holmes Mills, NJ	01464480	3.15	1966, 1969-74
Blacks Creek at Mansfield Square, NJ	01464530	19.7	1966-72
Crafts Creek at Hedding, NJ	01464540	10.6	1959-63
Assiscunk Creek at Columbus, NJ	01464580	8.28	1959-63
Assiscunk Creek near Burlington, NJ	01464590	37.2	1966-74
Southwest Branch Rancocas Creek at Medford, NJ	01465880	47.2	1961-66, 1973
Sharps Run at Medford, NJ	01465884	4.41	1982-90
Little Creek near Lumbertom, NJ	01465898	19.2	1982-90
Southwest Branch Rancocas Creek at Eayrestown, NJ	01465900	76.2	1959-61
Parkers Creek near Mount Laurel, NJ	01467010	2.66	1964-72
Mill Creek at Willingboro, NJ	01467020	7.73	1959-64, 1976
Pompeston Creek at Cinnaminson, NJ	01467057	5.74	1964-72
North Branch Pennsauken Creek at Maple Shade, NJ	01467070	13.0	1959-63
South Branch Pennsauken Creek at Maple Shade, NJ	01467080	8.13	1964-67
Newton Creek at Collingswood, NJ	01467305	1.32	1964-72
Newton Creek at West Collingswood, NJ	01467312	3.48	1964-72
S. Br. Newton Creek at Glover Ave, at Haddon Heights, NJ	01467315	.52	1968-74
S. Br. Newton Creek at 13th Ave, at Haddon Heights, NJ	01467317	.63	1964-67
S. Br. Big Timber Creek at Blackwood, NJ	01467330	19.1	1964-72
N. Br. Big Timber Creek at Laurel Springs, NJ	01467350	6.55	1959-71

DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi2)	Period of record (water years)
Mantua Creek at Glassboro, NJ	01474950	1.20	1965-66, 1974-77
Mantua Creek at Greentree Road, at Glassboro, NJ	01474970	2.78	1965-66, 1974-77
Mantua Creek at Sewell, NJ	01475020	14.7	1966-72
Raccoon Creek near Mullica Hill, NJ	01477100	10.1	1959-63
South Branch Raccoon Creek near Mullica Hill, NJ	01477118	8.30	1966-72
Nichomus Run near Woodstown, NJ	01482510	3.76	1966-74
Salem River at Sharptown, NJ	01482520	27.3	1966-72, 1974-75
Major Run at Sharptown, NJ	01482530	3.04	1966-72, 1974-75
Cool Run near Alloway, NJ	01482900	4.92	1959-63
Cedar Brook near Alloway, NJ	01482950	3.76	1959-63
Deep Run near Alloway, NJ	01483010	5.30	1977-84

WATER RESOURCES DATA - NEW JERSEY, 1992

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of New Jersey each water year. These data, accumulated during 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 Geological Survey, the data are published annually in this report series entitled "Water Resources Data - New Jersey."

This report series includes records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains records for water discharge at 99 gaging stations; tide summaries at 2 gaging stations; stage and contents at 37 lakes and reservoirs and water quality at 95 surface-water stations. Also included are data for 65 crest-stage partial-record stations and stage only at 13 tidal crest-stage gages. Locations of these sites are shown on figures 11 and 12. Additional water data were collected at various sites not involved in the systematic data-collection program. Discharge measurements were made at 94 low-flow partial-record stations. Miscellaneous data were collected at 42 discharge measuring sites. Water-quality data were collected at 9 partial-record stations. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal 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. For the 1975 through 1989 water years, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels. 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.

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 the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Books and Open-file Reports Section, Federal Center, Box 25425, Denver, CO, 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey 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-92-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information, Service, U.S. Department of Commerce, Springfield, VA 22161. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (609) 771-3900. A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

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 Survey are:

New Jersey Department of Environmental Protection and Energy, Scott A. Weiner, Commissioner.
New Jersey Water Supply Authority, Rocco Ricci, Executive Director.
North Jersey District Water Supply Commission, Dean C. Noll, Chief Engineer.
Passaic Valley Water Commission, W.I. Inhoffer, General Superintendent and Chief Engineer.
City of New Brunswick, Thomas J. Brennan, Director, Water Utility Department.
County of Bergen, Quenten Weist II, Director of Public Works and County Engineer.
County of Gloucester, Robert V. Scolpino, Director of Planning.
County of Morris, James W. Souders, Chairman, Morris County Municipal Utilities Authority.
County of Somerset, Michael J. Amorosa, County Engineer, and Thomas Harris, Administrative Engineer.
Pinelands Commission, Terrance D. Moore, Executive Director.
Township of West Windsor, Elaine W. Ballai, Chairman of Environmental Commission.

Assistance in the form of funds was given by the Corps of Engineers, U.S. Army, in collecting records for 12 surface-water stations, and by the U.S. Army Armament Research and Development Center for the collection of records at 3 surface-water stations. In addition, several stations were operated fully or partially from funds appropriated directly to the Geological Survey. Funding was also supplied by the following Federal Energy Regulatory Commission licensees: Jersey Central Power and Light Company, Passaic Valley Water Commission, and Independent Hydro Developers Inc. Assistance was provided by the National Weather Service and the National Ocean Service.

The following organizations aided in collecting records:

Municipalities of Atlantic City, Jersey City, Newark, New Brunswick and Spotswood; American Cyanamid Company; Elizabethtown Water Company; Ewing-Lawrence Sewerage Authority; Hackensack Water Company; New Jersey-American Water Company; and Jersey Central Power and Light Company.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

Streamflow for the 1992 water year was below normal throughout the State, ranging from 80 percent of normal in the northeastern part of the State to 65 percent of normal in the southern part. Streamflow was below normal at the beginning of the year and declined steadily for the remainder of the year. Streamflow was below normal at many stations during most months. Total precipitation for the water year ranged from 34.43 inches, 85.5 percent of the updated 30-year (1961-90) mean, at Atlantic City to 33.36 inches, 75.8 percent of the 30-year mean, at Newark. Figure 1 shows monthly precipitation at three National Weather Service sites compared with the updated 30-year means. Combined contents of 13 major water-supply reservoirs was below average at the beginning of the year and above average at the end of the year (see figure 2).

Water year 1992 began with streamflow below normal throughout the State. Streamflow declined steadily through October, November, and December. A devastating storm on October 30 caused severe coastal flooding and beach erosion. Damage was due primarily to high winds and high tides. Precipitation was minimal--less than 0.1 inch. Some tides were the highest of record. Another storm on November 12 again caused coastal flooding and was accompanied by more than 1 inch of precipitation, but this storm was not as severe as the October 30 storm. Above-normal precipitation was recorded in December, but streamflow remained below normal. January precipitation was very low, averaging less than 50 percent of normal. Another storm, on January 5, again caused flooding in coastal communities. Precipitation continued to be below normal through May. Snowfall during winter months was less than 10 inches in the northern part of the State and less than 5 inches in the southern part. Streamflow remained below normal from January through May. June began with heavy precipitation. At Greenwood Lake, 2.6 inches of precipitation was recorded on June 1. Another storm occurred on June 5 to 6. At Canoe Brook, in northern New Jersey, 5.75 inches of rainfall was recorded on June 5. These storms resulted in the peak discharges recorded for the year at most gaging stations throughout the State. Precipitation in June averaged more than 160 percent of normal. Flooding was reported throughout the State, but was most severe in the Passaic and Raritan River Basins. Reservoirs, which were very low before the storms, were nearly full by the end of June. The high precipitation in June and near-normal precipitation in July resulted in above-normal streamflow throughout July. Precipitation in August was about normal except in the coastal area, where recorded rainfall was 160 percent of normal. Some flooding was reported in Monmouth and Ocean Counties from storms on August 1, 18, and 29. Tornadoes were reported in the South Amboy area on August 1. In September, precipitation was again about normal, except in the Atlantic City area, where recorded rainfall was 172 percent of normal. This high rainfall was primarily the result of Hurricane Danielle, which passed near the coast on September 26. Inland communities were less seriously affected. Streamflow at the end of the water year was about normal.

Streamflow at the index station for northern New Jersey (South Branch Raritan River near High Bridge) averaged 88.1 ft^3/s for the water year; this flow is 72.2 percent of the 1918-92 average. Streamflow at the index station for southern New Jersey (Great Egg Harbor River at Folsom) averaged 61.6 ft^3/s for the water year; this flow is 71.8 percent of the 1926-92 average. The observed annual mean discharge of the Delaware River at Trenton was 8,308 ft^3/s, which is 71.6 percent of the 1913-92 average. The Delaware River is highly regulated by reservoirs and diversions. The natural flow at Trenton (adjusted for upstream storage and diversion) was 87.0 percent of normal for the year. Monthly mean discharge at each of these index gaging stations during the current water year and the long-term normal (1961-90, updated this year) monthly discharge are shown in figure 3. Annual mean discharge at each of these index gaging stations and the mean annual discharge for the period of record are shown in figure 4.

Combined usable storage in 13 major water-supply reservoirs in New Jersey increased from 46.3 billion gallons (57.6 percent of capacity) on October 1, 1991, to 62.1 billion gallons (77.3 percent of capacity) on September 30, 1992. Storage in Wanaque Reservoir increased from 12.1 billion gallons (40.9 percent of capacity) on October 1, 1991, to 18.8 billion gallons (63.3 percent of capacity) on September 30, 1992. Pumped storage in Round Valley Reservoir, the largest capacity reservoir in the State, increased from 51.8 billion gallons (94.2 percent of capacity) on October 1, 1991, to 52.0 billion gallons (94.5 percent of capacity) on September 30, 1992.

Water Quality

Below-normal precipitation at the beginning of the water year caused decreased dilution and, in turn, increased concentrations of dissolved solids in streams in the northern part of the State. By the end of the year, low streamflows had resulted in above-normal concentrations of dissolved solids. Dilution of dissolved solids generally results in an improvement in water quality because concentrations of undesirable substances, such as trace elements, organic compounds, nutrients, bacteria, and nuisance aquatic organisms, usually also are diluted. The degree of dilution is apparent when monthly mean values of specific conductance, which is related directly to dissolved-solids concentration, for water year 1992 are compared with mean specific-conductance values for an earlier period. Monthly mean specific-conductance values for the Delaware River at Trenton, a large drainage area in central New Jersey and parts of New York and Pennsylvania, in 1992 are compared with the monthly mean values for 1969-91 in figure 5. Specific-conductance values were above the historical average for the first 2 months of the year, reflecting below-normal streamflow; however, normal streamflow in December and January caused monthly mean specific conductance to approximate the historical monthly means for the previous 22 years. The mean monthly specific conductance for February was above the historical mean monthly value as a result of below-average streamflow. The mean monthly specific-conductance values for most of the remainder of water year 1992 were about equal to the mean of the historical monthly mean values, but in September, the specific conductance was above the historical mean as a result of low streamflow.

The monthly mean values of the temperature of the water flowing past the continuous-monitoring station on the Delaware River at Trenton, N.J., in water year 1992 were about equal to the historical monthly mean values (fig. 6). The largest differences between the historical (1966-91) monthly mean water temperatures and those for water year 1992 occurred in March, April, and June.

The monthly median extremes of concentrations of dissolved oxygen in the Delaware River at Trenton during the 1992 water year were within the range of historical (1966-91) extreme values (fig. 7). The monthly median of the daily minimum concentrations was lowest (7.0 milligrams per liter) in July and August, when the monthly mean water temperature was highest for the year. The monthly median of the daily maximum concentrations was highest (15.5 milligrams per liter) in February, when the monthly mean water temperature was 3°C, the minimum for the year.

Ground-Water Levels

Ground-water levels fluctuate in response to such factors as recharge from precipitation, discharge of ground water to streams, changes in atmospheric pressure, evapotranspiration, and ground-water withdrawals from wells. In addition, tidal fluctuations affect water levels in aquifers near oceans, bays, and estuaries. When recharge to the ground-water system exceeds discharge, water levels rise; conversely, when discharge from wells, to surface-water bodies, or to the atmosphere through evapotranspiration exceeds recharge, water levels decline. Records of water levels in wells, therefore, are useful in evaluating seasonal and long-term changes in ground-water storage and local and regional effects of pumping from wells (Rooney, 1971, p. 20).

Changes in ground-water levels during the 1992 water year were determined from a statewide network of observation wells. Ground-water levels in many water-table observation wells ranged from average to below average throughout most of the year and were lower than during the previous water year. Water levels in observation wells that tap the heavily pumped confined aquifers in the southern part of the Coastal Plain continued to undergo long-term net declines, whereas water levels rose dramatically in the confined aquifers in the northern part of the Coastal Plain (Monmouth, eastern Middlesex, and northern Ocean Counties). The greatest water-level decline in an observation well in the 1992 water year occurred in the New Brooklyn Park 3 observation well screened in the Wenonah-Mount Laurel aquifer in Camden County (NJ-WRD well number 07-0478), where the previous record low was exceeded by 4.1 feet. The water level in this well has declined a total of 33.9 feet since April 1983. Other aquifers in the southern New Jersey Coastal Plain in which water levels fell below previous lows of record include the Potomac-Raritan-Magothy aquifer system, the Piney Point aquifer, the Atlantic City 800-foot sand of the Kirkwood Formation, and the Kirkwood-Cohansey aquifer system.

Long-term declines in water levels reversed in several observation wells screened in the deep confined aquifers in the northern part of the Coastal Plain (Monmouth, eastern Middlesex, and northern Ocean Counties). Water levels in these wells began to rise near the beginning of the 1991 water year and continued to rise during the 1992 water year. This trend resulted, in part, from the substitution of surface water for the ground water previously used for public supply in parts of Middlesex and Monmouth Counties. In addition, some public-water-supply systems shifted their withdrawals from the deeper confined aquifers to the shallower confined aquifers and the unconfined aquifer. Since October 1, 1990, water levels have risen from 5 to 58 feet in several observation wells screened in the Potomac-Raritan-Magothy aquifer system; the water level in the Allaire State Park C observation well (NJ-WRD well number 25-0429) screened in the Englishtown aquifer system has risen more than 48 feet; and the water level in the DOE-Sea Girt observation well (NJ-WRD well number 25-0486) screened in the Wenonah-Mount Laurel aquifer has risen more than 64 feet.

Water-level hydrographs included in this report illustrate the data presented in the tables. Monthly water levels in two water-table observation wells in 1992 are compared with monthly extremes and long-term averages in figure 8. These two wells are the Lebanon State Forest 23-D well (NJ-WRD well number 05-0689) in Burlington County and the Bird well (NJ-WRD well number 19-0002) in Hunterdon County. For further comparison, 20-year water-level hydrographs of two wells in the Coastal Plain--one in an unconfined aquifer (NJ-WRD well number 05-0689) and one in a confined aquifer (NJ-WRD well number 07-0413)--are presented in figure 9. In addition, multiyear hydrographs that include the water-level data for the 1992 water year are provided with the tabular data for most of the wells in this report.

SALTWATER-MONITORING NETWORK

The usability of the ground water of the Coastal Plain of New Jersey depends primarily on its chemical quality. In nearshore areas, actual or potential saltwater contamination of ground water is of paramount importance, and chloride concentration is an excellent index of the extent and degree of saltwater contamination. The presence of high concentrations of chloride alone is not definitive proof of active saltwater encroachment. It may represent a natural static condition common in shallow deposits bordering saline creeks, bays, and marshes. In the deep formations, saline ground water may be residual water trapped in the sediments. Saltwater encroachment in these areas can be proven only by periodic sampling that shows an increase in chloride concentration with time. Because saltwater encroachment is indicated by changes in chloride concentration rather than by actual concentration, the establishment of a chloride-concentration value as a limit that can be used to indicate encroachment is difficult; however, concentrations of chloride less than 10 ppm (parts per million) generally do not indicate encroachment (Seaber, 1963, p. 5).

The U.S. Geological Survey established a saltwater-monitoring network in the Coastal Plain of New Jersey in the 1940's to document and evaluate the movement of saline water into freshwater aquifers that serve as sources of water supply. Water samples are collected mainly from public-supply and industrial wells and, to a lesser extent, from U.S. Geological Survey observation wells. Sampling is concentrated along the coastal area from Raritan Bay to Cape May and along the Delaware River from Cape May County to Gloucester County. In the 1992 water year, samples of water were collected from 156 wells in 8 counties. The results of analysis of the water samples collected from these Saltwater-Monitoring-Network wells are presented in tables in the section of this report titled "Quality of Ground Water."

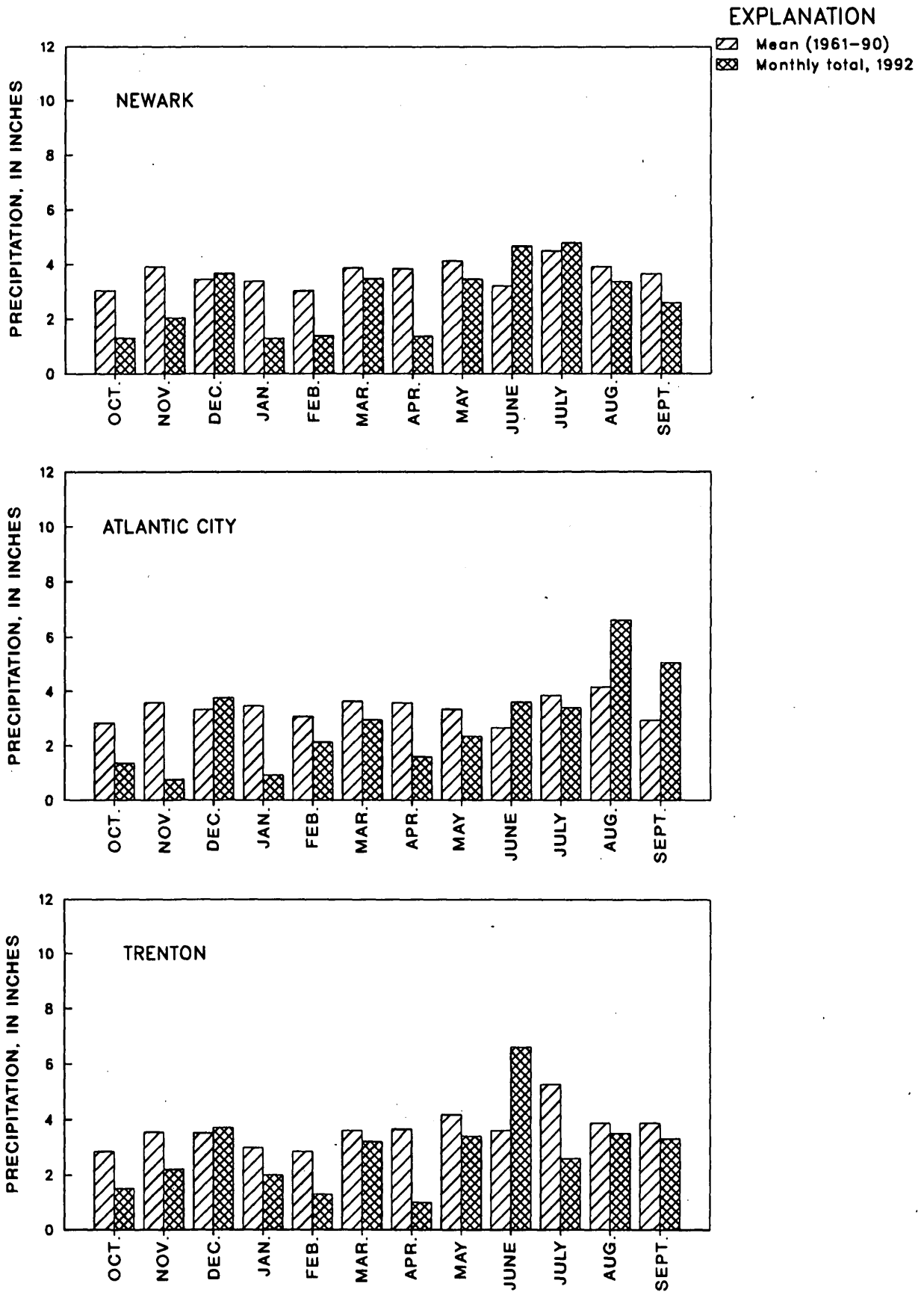
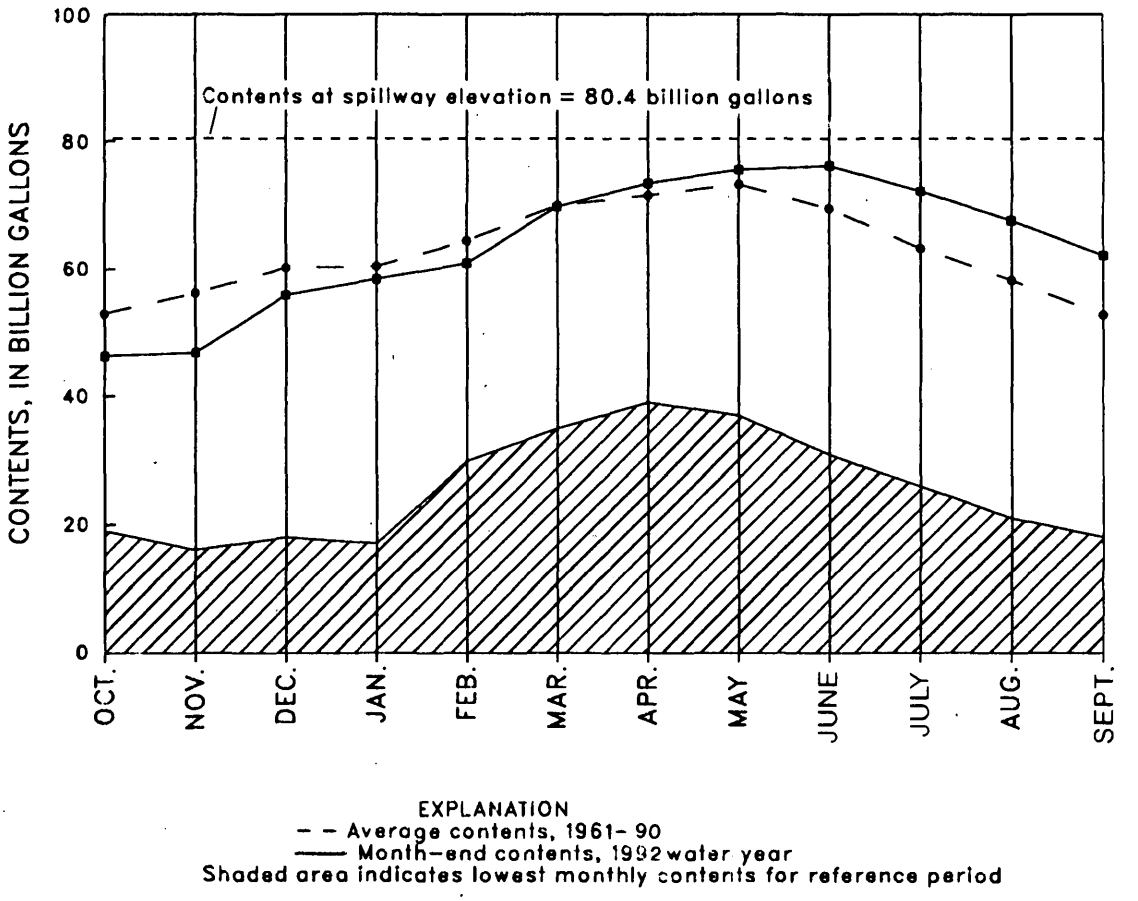
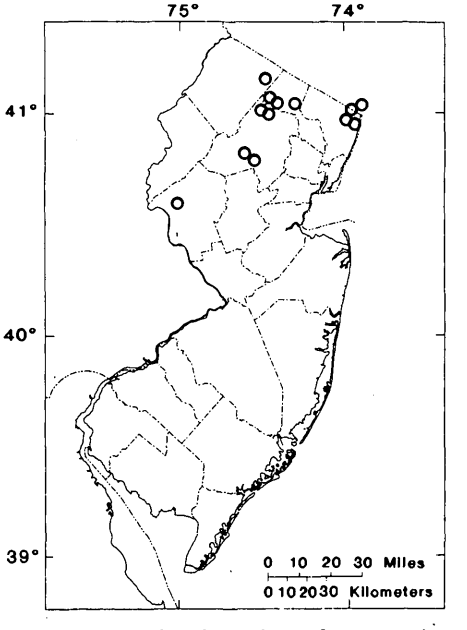


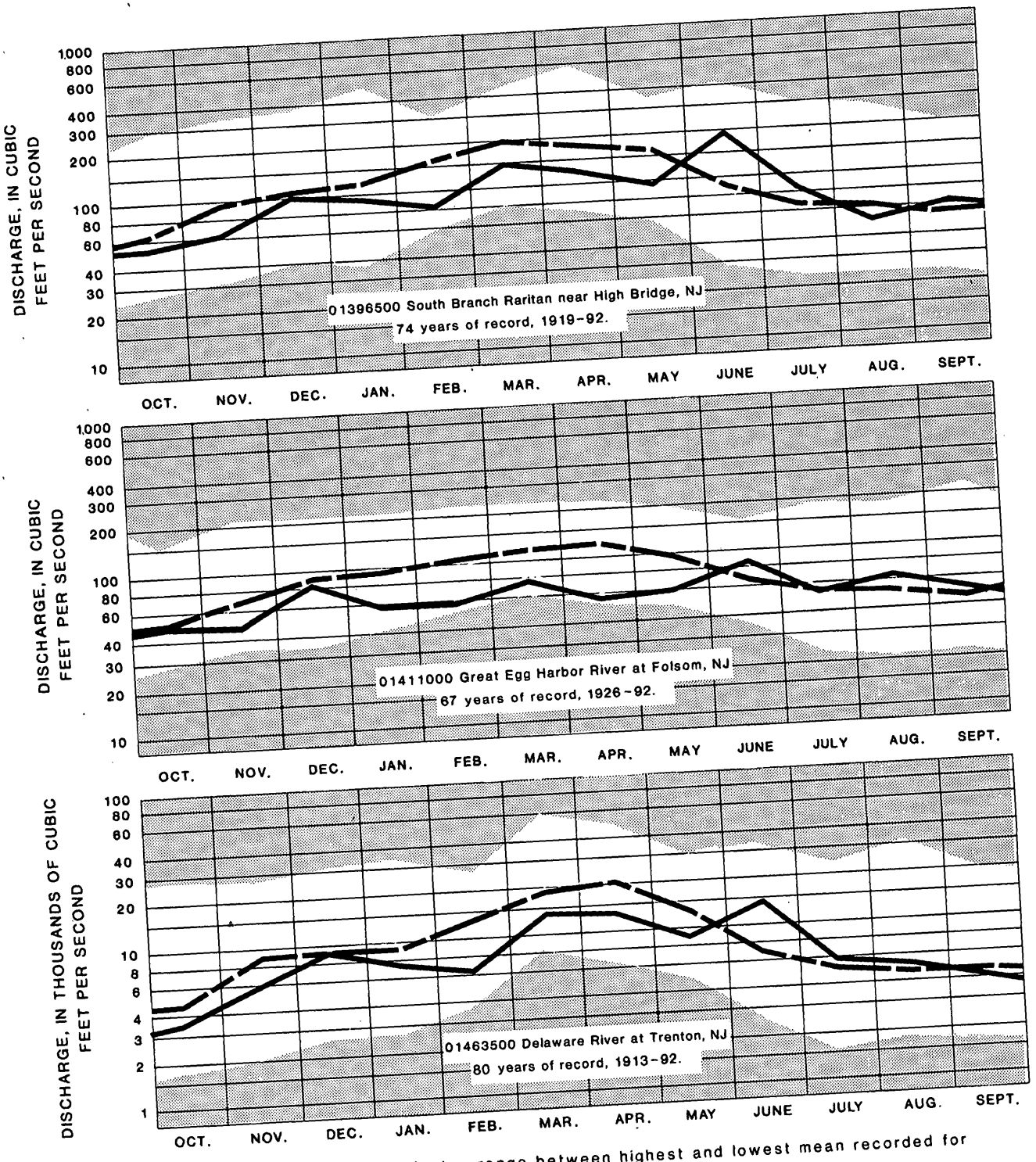
Figure 1.--Monthly precipitation at three National Weather Service locations.





Map showing location of reservoirs

Figure 2.--Combined usable storage in 13 major water-supply reservoirs.



Unshaded area.--Indicates range between highest and lowest mean recorded for the month, prior to 1992 water year.

Broken line.--Indicates normal (median of the monthly means) for the standard reference period, 1961-90.

Solid line.--Indicates observed monthly mean flow for the 1992 water year.

Figure 3.--Monthly mean discharge at index gaging stations.

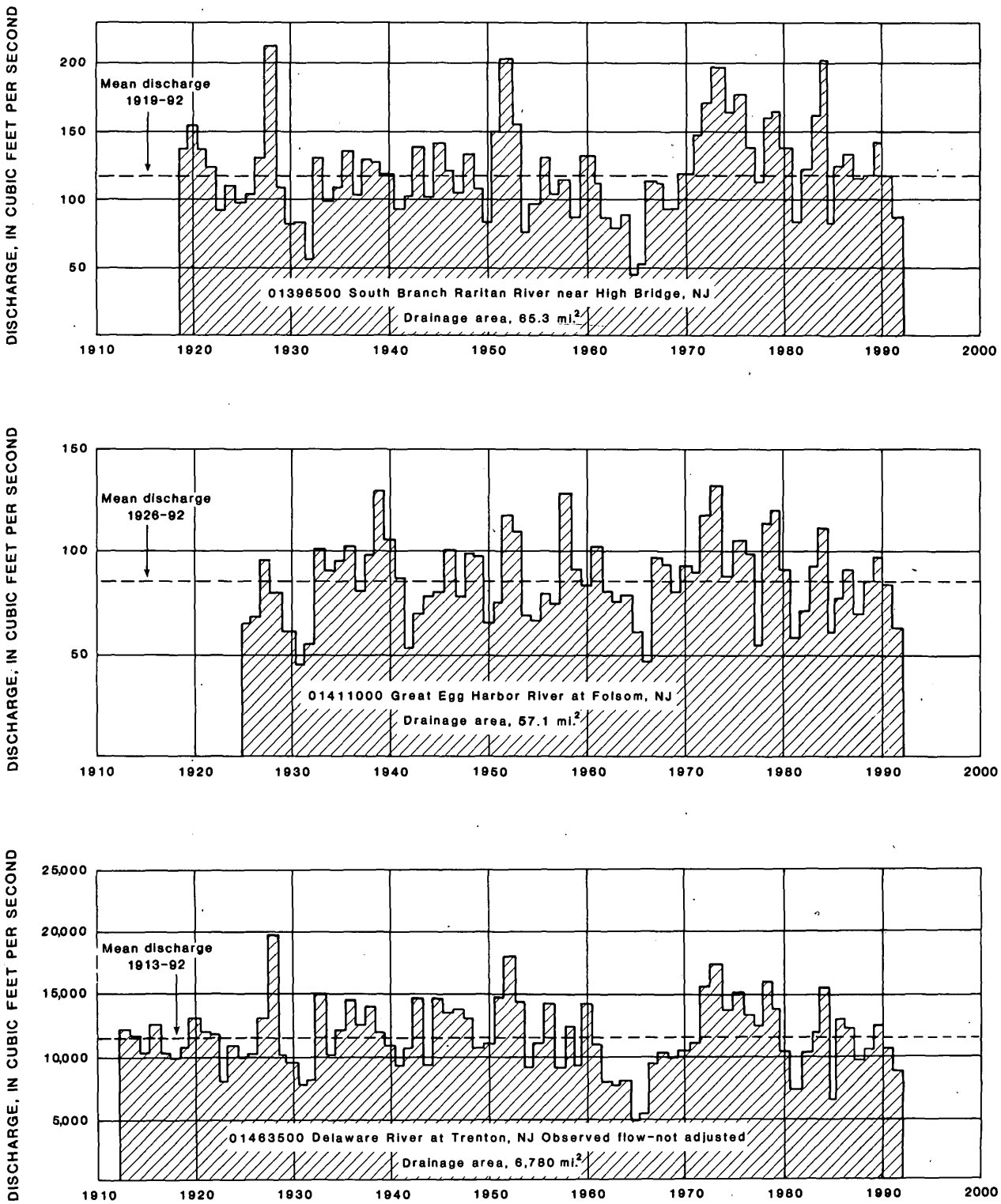
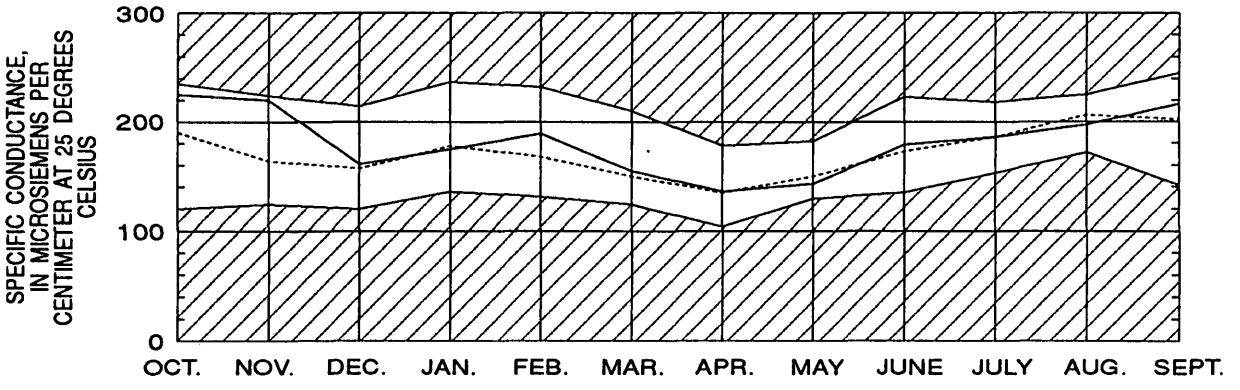


Figure 4.--Annual mean discharge at index gaging stations.

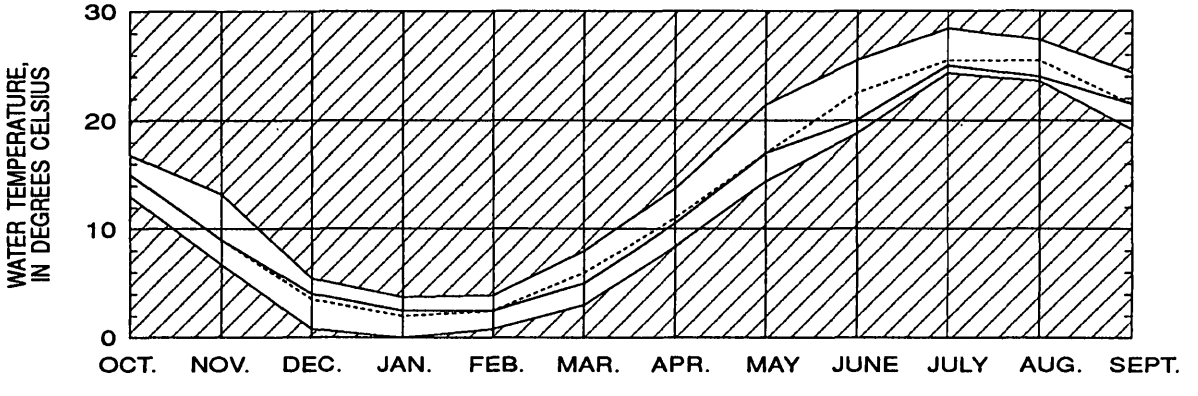


Unshaded area.--Indicates the range between the highest monthly mean of daily values and the lowest monthly mean of daily values, water years 1969-91.

Solid line.--Indicates the monthly mean values for water year 1992.

Broken line.-- Indicates the mean of monthly mean values for water years 1969-91.

Figure 5.--Monthly mean specific conductance at Delaware River at Trenton, New Jersey.

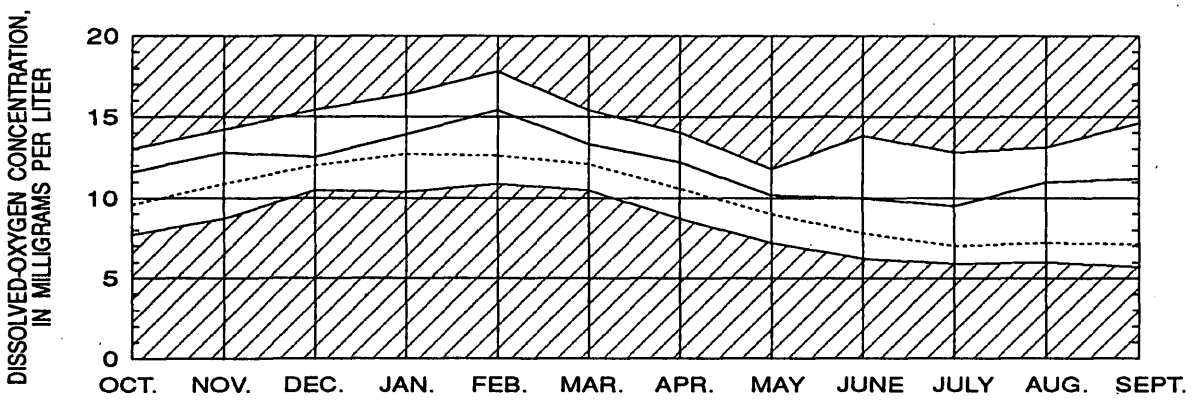


Unshaded area.--Indicates the range between the highest monthly mean of daily values and the lowest monthly mean of daily values, water years 1966-91.

Solid line.--Indicates the monthly mean values for water year 1992.

Broken line.-- Indicates the mean of monthly mean values for water years 1966-91.

Figure 6.--Monthly mean water temperature at Delaware River at Trenton, New Jersey.

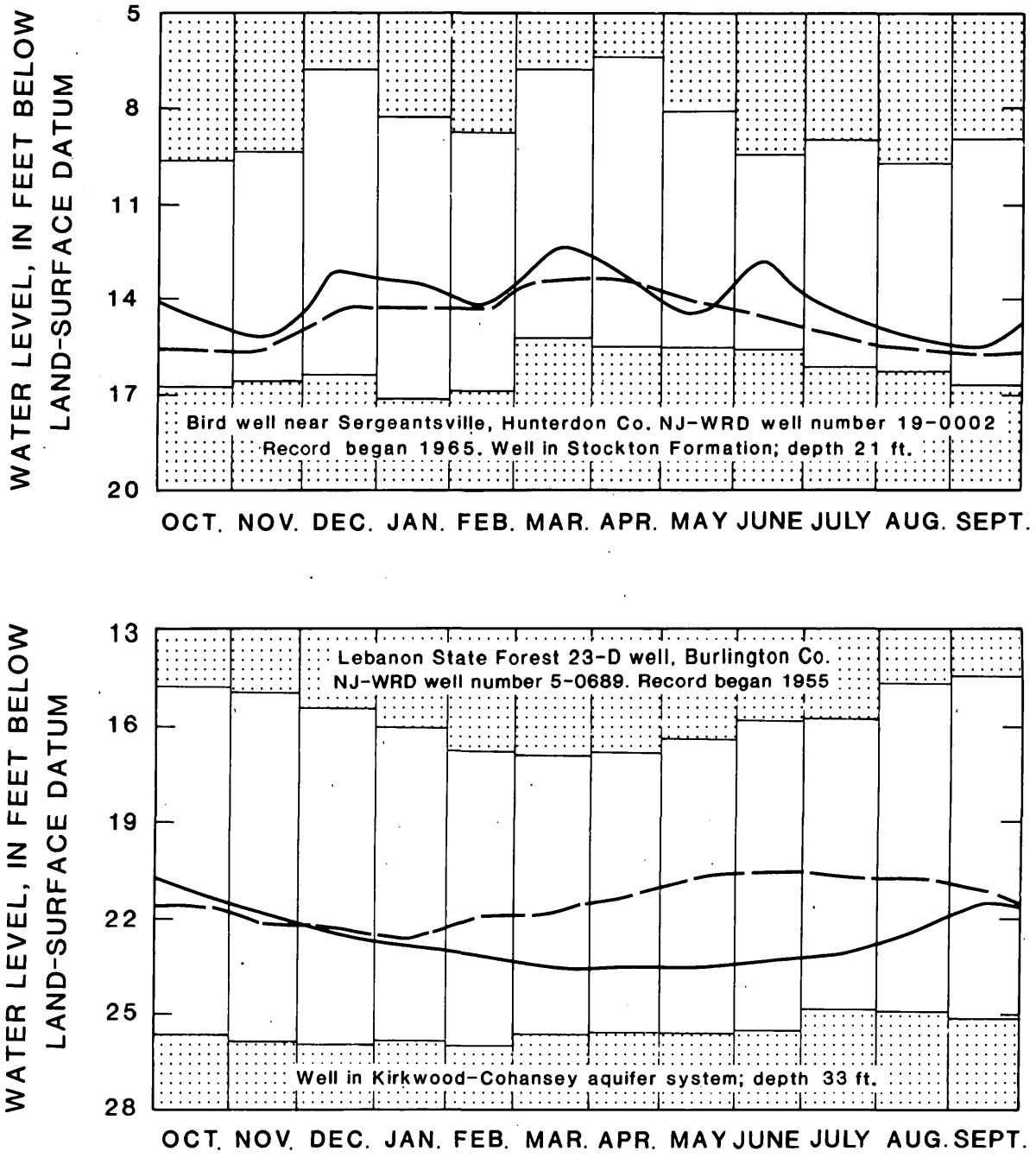


Unshaded area.--Indicates the range between the highest monthly median of daily maximum values and the lowest monthly median of daily minimum values, water years 1966-91.

Solid line.--Indicates the monthly median of daily maximum values for water year 1992.

Broken line.-- Indicates the monthly median of daily minimum values for water year 1992.

Figure 7.--Monthly medians of maximum and minimum daily dissolved-oxygen concentrations at Delaware River at Trenton, New Jersey.



Unshaded area--Indicates range between highest and lowest recorded monthly water levels, prior to current year

Dashed line--Indicates average of monthly mean water levels, prior to current year

Solid line--Indicates monthly mean water level for the current year

Figure 8.--Monthly ground-water levels at key water-table observation wells.

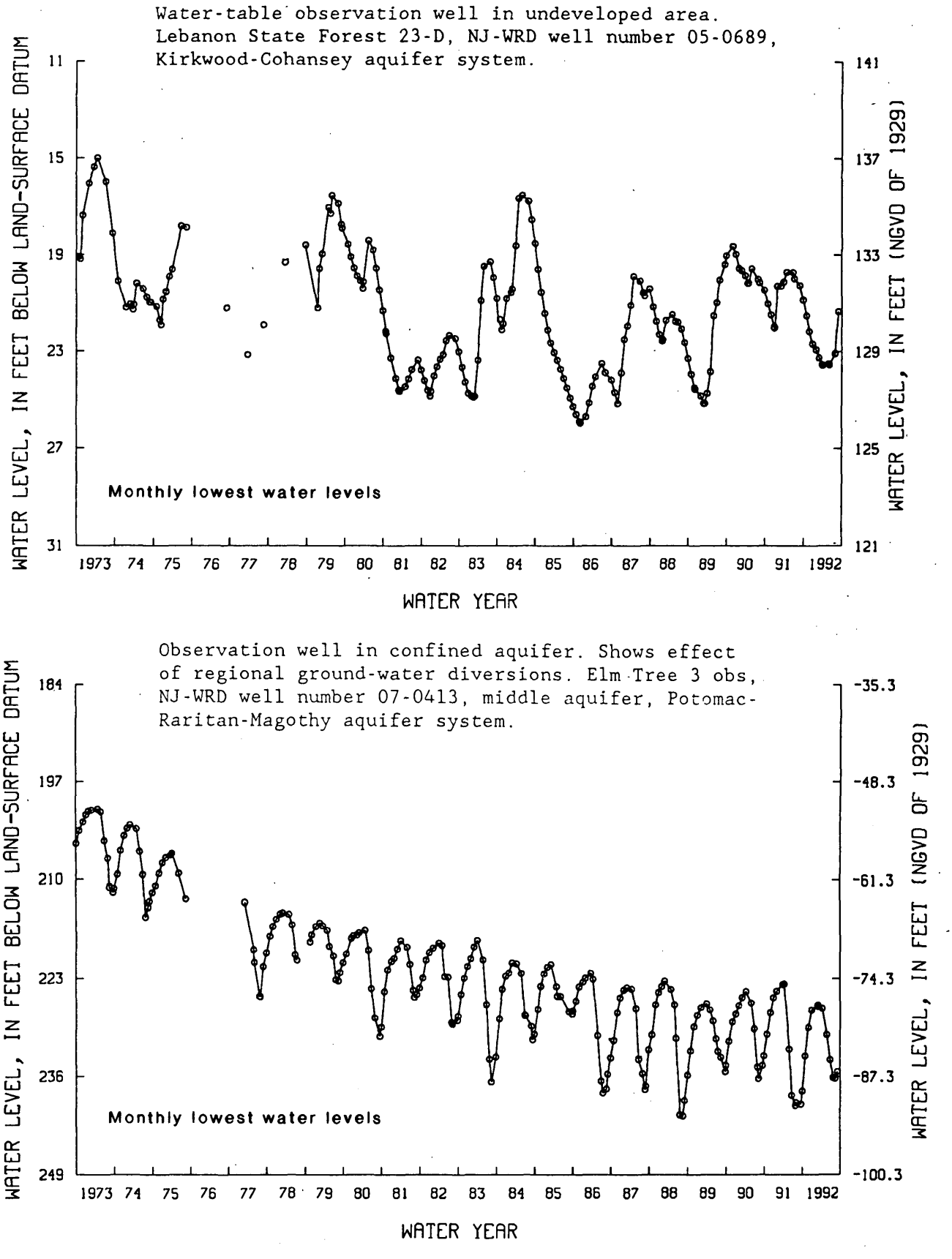


Figure 9.--Twenty-year water-level hydrographs of one artesian and one water-table observation well.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-mark Network is a network of 57 surface-water sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man. The Bench-mark Network station published in this report is McDonalds Branch in Lebanon State Forest, NJ (01466500).

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network of surface-water-quality stations designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research. NASQAN stations published in this report are: Passaic River at Little Falls, NJ (01389500), Raritan River, at Queens Bridge, at Bound Brook, NJ (01403300), Toms River near Toms River, NJ (01408500), West Branch Wading River at Maxwell, NJ (01409815), Maurice River at Norma, NJ (01411500), and Delaware River at Trenton, NJ (01463500).

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP). No NTN stations are published in this report.

Radiochemical Program is a network of regularly sampled surface-water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States. The Radiochemical Program station published in this report is Delaware River at Trenton, NJ (01463500).

Tritium Network is a network of stations which has been established to provide baseline information or the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States. No Tritium Network stations are published in this report.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1992 water year that began October 1, 1991, and ended September 30, 1992. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs and surface-water-quality data. The locations of the stations where the data were collected are shown in figures 11 and 12. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. Generally the "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, 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 made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 01396500, which appears just to the left of the station name, includes the two-digit Part number "01" plus the 6-digit downstream-order number "396500". The Part number designates the major drainage basin; for example, Part "01" covers the North Atlantic slope basins. In some areas where all 8-digit numbers are used up, 10-digit station numbers are assigned between the 8-digit numbers.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below.)

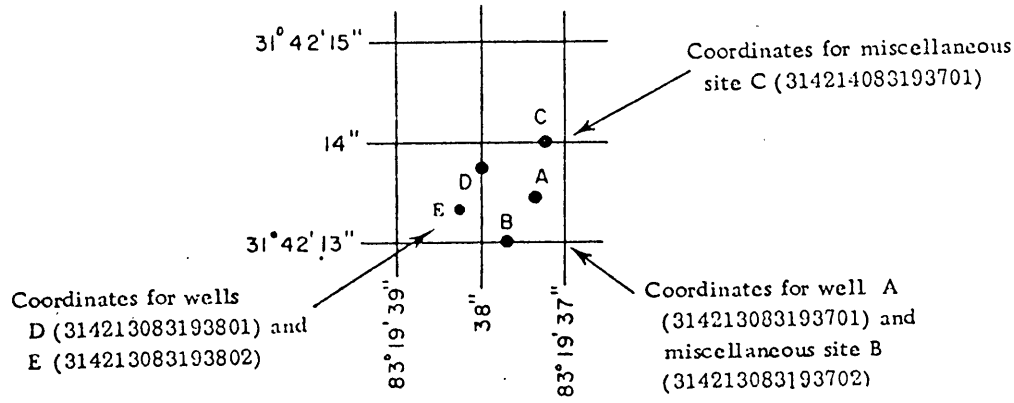


Figure 10.-- System for numbering wells and miscellaneous sites (latitude and longitude)

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records. Location of all complete-record and crest-stage partial-record stations for which data are given in this report are shown in figures 11 and 12.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage, with digital recorders that punch stage values on paper tapes at selected time intervals, or with data collection platforms (DCP) that electronically record and then transmit the data via satellite to ground receiving stations. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the unit mean stages (gage heights) to the stage-discharge curves or tables and averaging the results. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as the lapsed time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1988 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations 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 period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that flow at it can reasonably be considered equivalent to flow at the present station.

REVISED RECORDS.--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to sea level (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily discharge will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir station, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

PEAK DISCHARGES FOR CURRENT YEAR.--For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. All peaks greater than the base discharge are listed with the maximum for the year footnoted by an asterisk (*). Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man or at locations where the instantaneous peak discharge does not exceed the mean daily discharge by 10 percent. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of instantaneous peak discharges in the PEAK DISCHARGES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"); or in inches (line headed "IN."); or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS ____-____, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station records within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year, but also for the previous calendar year and for the designated period, as appropriate. The designated period selected, "WATER YEARS ____-____," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below.), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript of in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations, the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date for the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Secondary instantaneous peak discharges above a selected base discharge are given in the station manuscript under the heading "PEAK DISCHARGES ABOVE BASE FOR CURRENT YEAR."

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per second per square mile (CFSM) 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.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites. Following the listings of measurements at miscellaneous sites is a table of maximum elevations at tidal crest-stage stations.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated" or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the New Jersey District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 11.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-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 continuing or partial-record station where random 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 "continuing records", as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. 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.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites which are not at a surface-water daily record station appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

Water-quality data must represent the in-situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on-site when the samples are collected. In addition, specific procedures must be used in collecting, treating, and shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. These references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" at the end of the introductory text. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey, New Jersey District office.

In streams, concentrations of various constituents may vary within the cross section depending on variables such as flow rate, the sources of the constituents, and mixing. Generally, constituents in solid phases are more variable in the cross section than are dissolved constituents. In many cases, samples must integrate several parts of the stream cross section to be representative, especially if loads will be calculated. One sample may be representative of the cross section when the distribution of constituents is homogeneous. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from several verticals.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. In some instances, apparent inconsistencies may exist in the data. For example, the orthophosphate-phosphorus concentration may exceed total phosphorus concentration. However, the difference in the inconsistent values normally is smaller than the precision of the analytical techniques. Inconsistencies between pH and carbonate and bicarbonate concentrations are commonly caused by intake or loss of carbon dioxide by the sample before it can be analyzed.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the Geological Survey, New Jersey District Office whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at 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, maximum, minimum and mean temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the New Jersey 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 sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been 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 were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, 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

Samples for biochemical-oxygen demand and for fecal coliform and enterococcus bacteria are analyzed at the District laboratory or at the New Jersey Department of Health, Division of Laboratories and Epidemiology. Samples for nutrients are analyzed at the New Jersey Department of Health or at the Geological Survey Laboratory in Arvada, Colorado. Sediment samples are analyzed in the Geological Survey Laboratory in Lemoyne, Pennsylvania. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

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, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. 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.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. 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, temperature recorder, 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 Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites which are not at a surface-water daily record station are published in separate tables following the table of discharge measurements at miscellaneous sites. 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 report:

PRINTED OUTPUT	REMARK
E	Estimated.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.
*	Laboratory determination (used when field determination is otherwise expected or indicated in column heading).

Dissolved Trace-Element Concentrations

Note.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's and 100's of nanograms per liter (ng/L). Present data above the µg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes. However, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in water year 1994.

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 WATSTORE data base. Subsequent sections contain information on recent publications and on WATSTORE.

Compositional Modeling of Organic Transport and Biodegradation of Organic Compounds in the Unsaturated Zone and Ground Water

Data Base Development and Determination of Confinement for Public Supply Wells in New Jersey

Development of a Geographical Information System Data Base, Gloucester County, New Jersey

Flood Characteristics of New Jersey Streams

Geohydrology at Picatinny Arsenal in Morris County, New Jersey

Geophysical Characteristics of Aquifers in New Jersey

Ground-Water Contamination with Chlorinated Volatile Organic Compounds at Picatinny Arsenal, Morris County, New Jersey

Ground-Water Data Collection Network

Ground-Water Resources and Saltwater Intrusion of Cape May County

Hydrologic Controls on Well-Contributing Areas in New Jersey

Hydrology of Surficial Aquifer Systems

Interpretation of Water Quality in New Jersey Streams, 1976-1986

Investigation of Optimal Recharge to Augment Ground-Water Supply in Peninsular Cape May County, New Jersey

Investigation of Water Quality in the Wanaque South Diversion Area, Morris and Passaic Counties, New Jersey

Land Subsidence Related to Ground-Water Withdrawals in the Coastal Plain Aquifer of New Jersey

Mercury Distribution, Sources and Mobility in the Kirkwood-Cohansey Aquifer System, New Jersey Coastal Plain

Modeling and Experimental Investigation of Hydrocarbon Transport and Biodegradation in the Unsaturated Zone

Multispecies Transport in Ground Water

New Jersey Water Use Program

Nonpoint-Source Ground-Water Contamination, Coastal Plain of Long Island, New York, and of Southern New Jersey

Optimal Withdrawals from a Coastal Aquifer in Cape May County Subject to Saltwater Encroachment: Numerical Analysis and Case Study

Optimization of Ground-Water-Withdrawal Strategies for the Coastal Plain Aquifer System of New Jersey

Pesticide Vulnerability of Public Ground-Water Supplies

Relation of Agricultural Pesticide Usage to Presence of these Pesticides in Surficial Waters Used for Water Supply

Quality of Water Data Collection Network

Regionalization of Low Flows for New Jersey Streams

Relation Between Land Use and Ground-Water Quality in Franklin Township, Gloucester County, New Jersey

Relations between Streamflow, Salinity, and Water Quality in Estuaries of the Toms and Metedeconk Rivers, New Jersey

Removal of Volatile Ground-Water Contaminants by Inducing Air-Phase Transport

Review of Remedial Investigation for the Vineland Chemical Superfund Site

Somerset County Flood-Monitoring Network

Spatial Analysis of Statewide Water-Quality Data

Surface Water Data Collection Network

Surfactant Sorption to Soil and its Effect on the Distribution of Anthropogenic Organic Compounds

Transport of Organic Contaminants Transport and Plume Delineation of Contaminant in Fractured Bedrock of the Passaic Formation, Rutgers University Busch Campus, New Brunswick, New Jersey

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

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Hickman, R.E., 1989, Compilation of mean annual suspended-sediment yields for selected streams draining basins within and adjacent to coal fields in the eastern United States: U.S. Geological Survey Open-File Report 88-80, 57 p.

Hill, M.C., Lennon, G.P., Brown, G.A., Hebson, C.S., and Rheaume, S.J., 1992, Geohydrology of, and simulation of ground-water flow in, the valley-fill deposits in the Ramapo River Valley, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 90-4151, 92 p.

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ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.

- Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.

- Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.

- Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.

- Ground-Water Site Inventory Data Base - Contains inventory data for over 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch and 3-1/2 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it 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 of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

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.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while 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.

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 warm-blooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which 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 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often 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.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which 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.

Enterococcus bacteria are commonly found in the feces of humans and other warm-blooded 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 which produce pink to red colonies with black or reddish-brown precipitate after incubation at 41°C on mE agar and subsequent transfer to EIA medium. Enterococci include Streptococcus feacalis, Streptococcus feacium, Streptococcus avium, and their variants.

Bedload is the sediment which moves along in essentially continuous contact with the streambed by rolling, sliding, and making brief excursions into the flow a few diameters above the bed.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Benthic invertebrates are invertebrate animals inhabiting the bottoms of lakes, streams, and other water bodies. 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 micro-organisms, such as bacteria.

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

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

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, 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.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which 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, usually milliliters (mL) or liters (L).

Cfs-day 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, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

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.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

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

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.

Continuing-record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.
2. When water temperature records include observations taken one or more times daily.
3. When sediment discharge records include periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). 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.)

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water 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 of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Extractable organic halides (EOX) are organic compounds which contain halogen atoms such a chlorine. These organic compounds are semi-volatile and extractable by ethyl acetate from air-dried stream bottom sediments. 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 stream bottom sediments.

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

High tide is the maximum height reached by each rising tide.

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Low tide is the minimum height reached by each falling tide.

Mean tide is the average of all high and low tides over a specified period.

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.

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

Micrograms per gram (µg/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 liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

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

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.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Deposition Program (NADP).

Organism is any living entity.

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.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) 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 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	.004 - .062	Sedimentation
Sand	.062 - 2.0	Sedimentation or sieve
Gravel	2.0 - 64.0	Sieve

The partial-size distributions given in this report are not necessarily representative of all particles in transport in the stream. 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.

Percent composition 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, mass, or volume.

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

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

Picocurie (PC, pCi) is one trillionth (1×10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 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.

Phytoplankton is the plant part of the plankton. They are usually 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 ar commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often 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.

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

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2/time)] for periphyton and macrophytes and [mg C/(m^3/time)] for phytoplankton are units for expressing primary productivity. They define 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 in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O /(m^2/time)] for periphyton and macrophytes and [mg O /(m^3/time)] for phytoplankton are the units for expressing primary productivity. They define 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.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

River mile as used herein, is the distance above the mouth of Delaware Bay, measured along the center line of the navigation channel or the main stem of the Delaware River. River mile data were furnished by the Delaware River Basin Commission.

Runoff in inches (IN., in.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it 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 influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

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 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total sediment discharge.

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. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution 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.

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

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.

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization or organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. 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.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. all areas shown are those for the stage when the planimetered map was made.

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

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the 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 um membrane filter 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 the 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 sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. 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 determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial 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	Hexagenia
Species	Hexagenia Limbata

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 that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 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) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment 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 all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment 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, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey 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, 1985, is called the "1985 water year."

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.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

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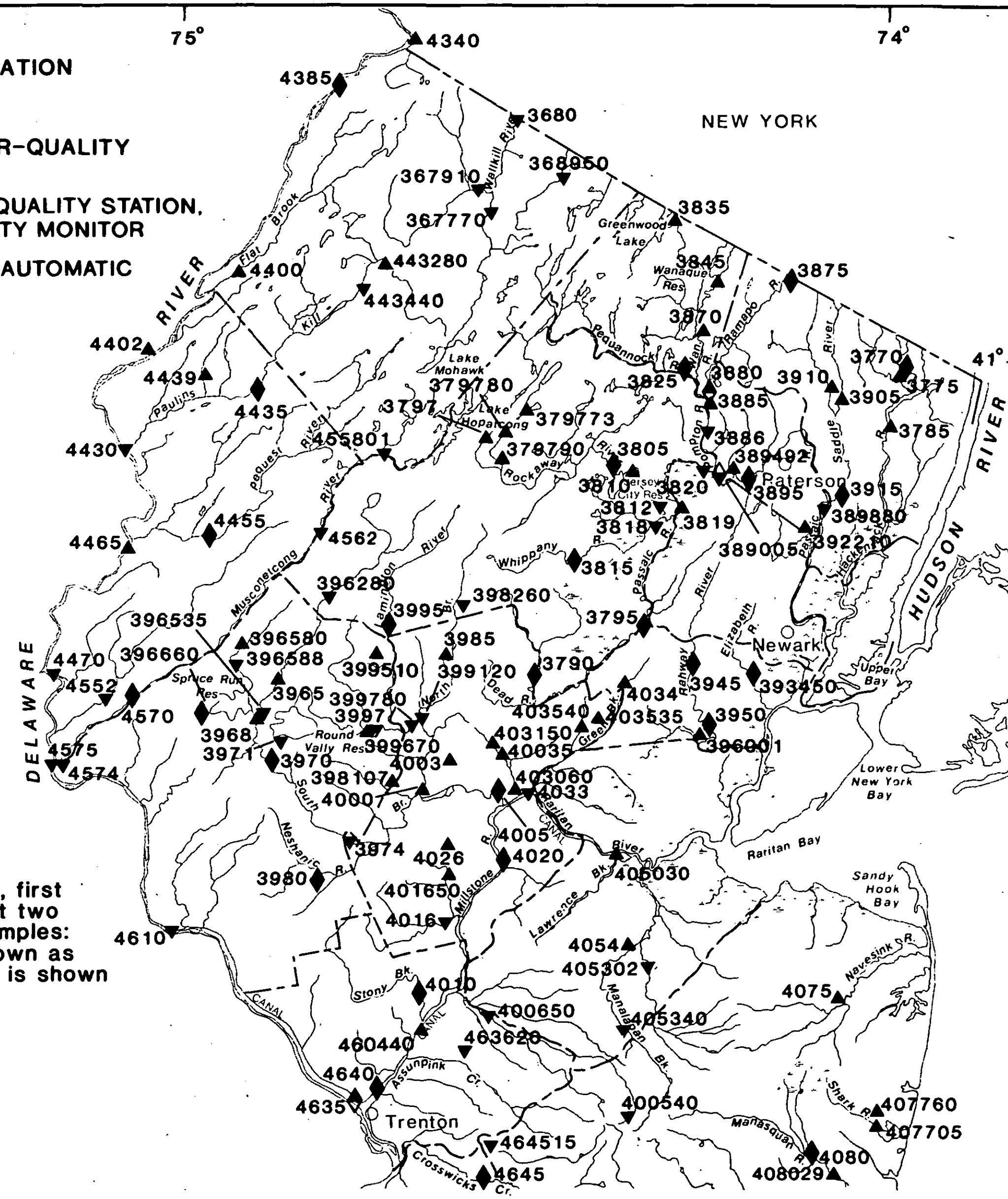
WATER RESOURCES DATA-NEW JERSEY, 1992

EXPLANATION

- ▲3775 SURFACE-WATER GAGING STATION
- ▼4610 WATER-QUALITY STATION
- ◆3915 SURFACE-WATER AND WATER-QUALITY STATION
- ◆3885 SURFACE-WATER AND WATER-QUALITY STATION, AND AUTOMATIC WATER-QUALITY MONITOR
- ◇389005 WATER-QUALITY STATION AND AUTOMATIC WATER-QUALITY MONITOR



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

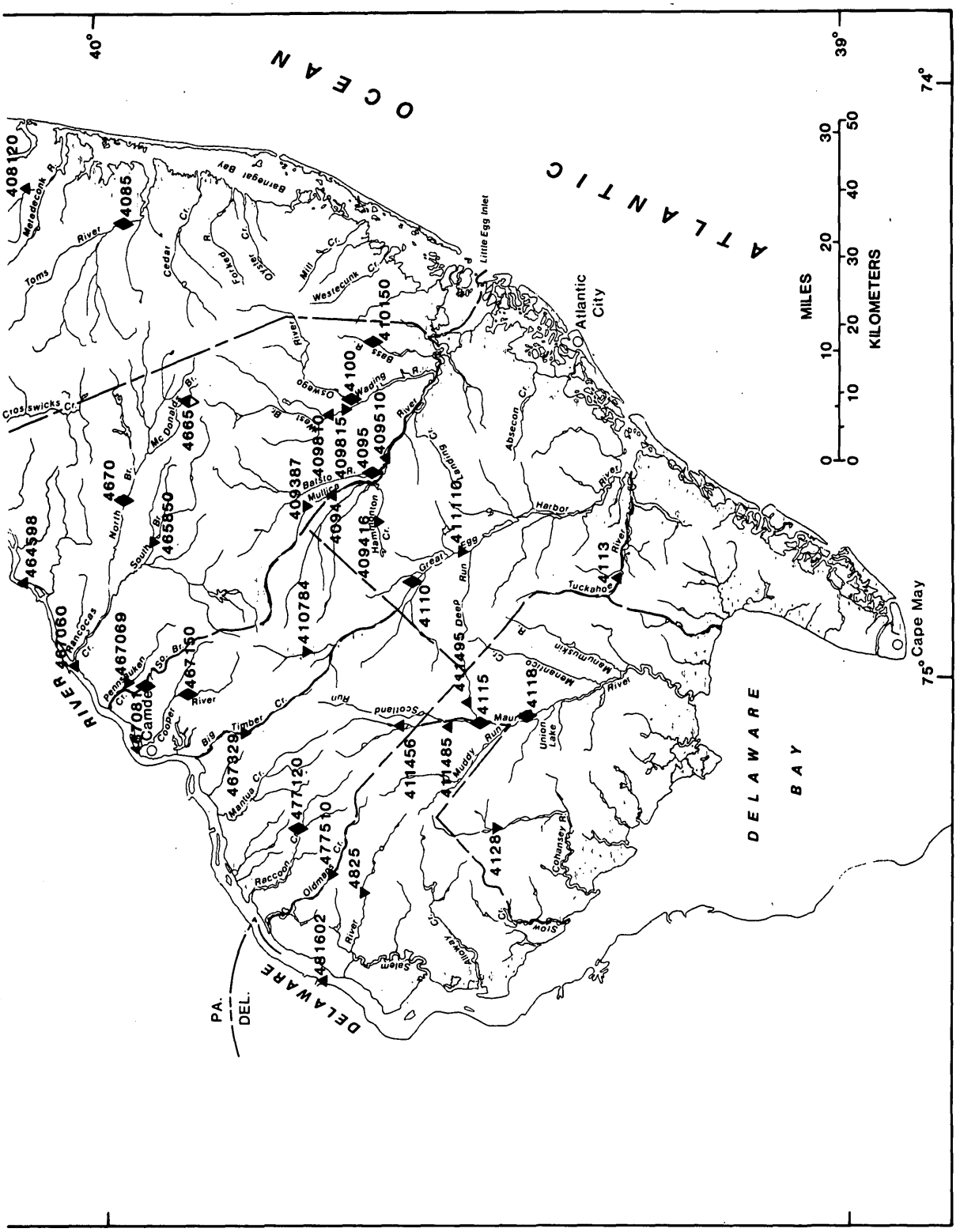
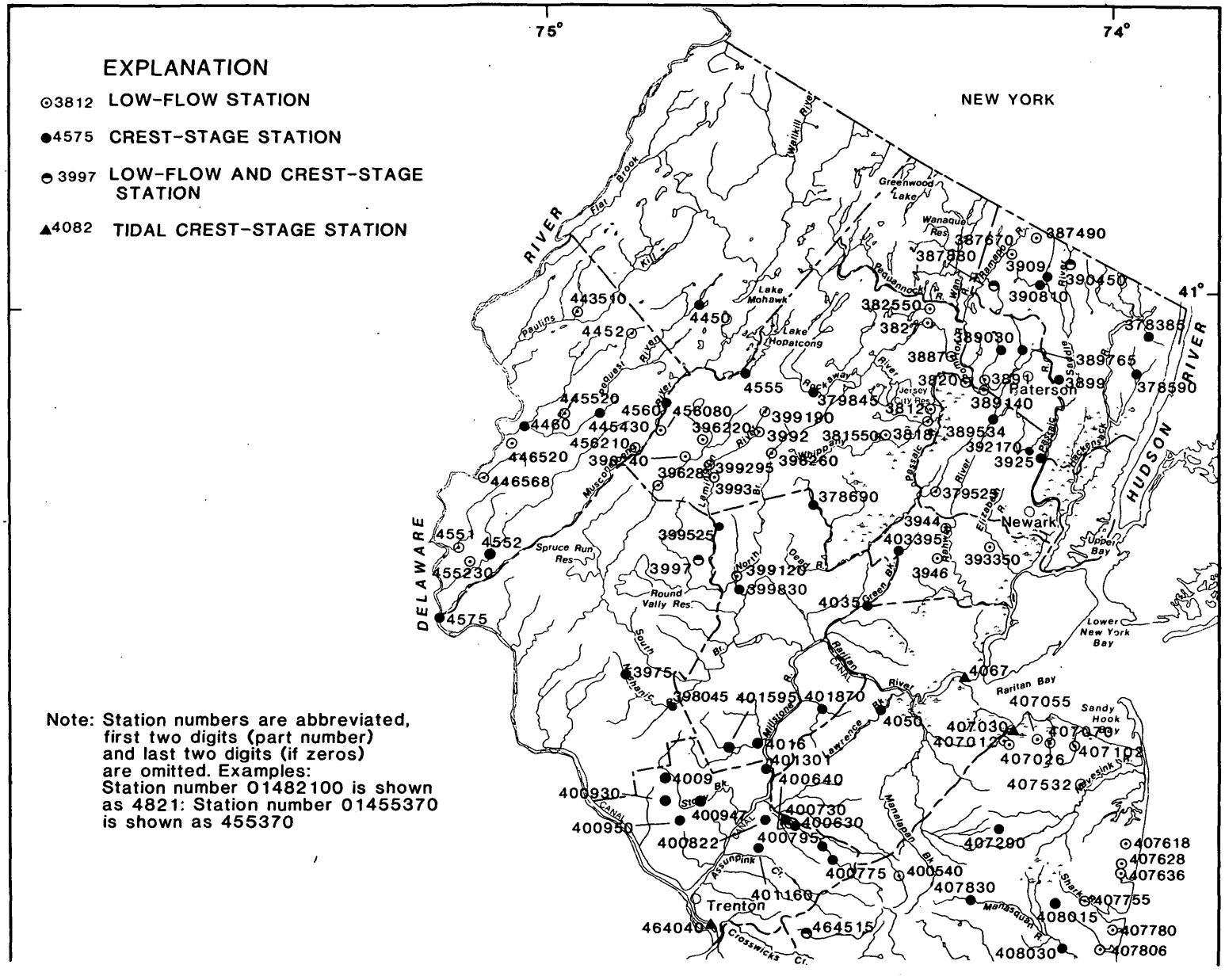


Figure 11.--Map showing location of gaging stations and surface-water quality stations.



Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01482100 is shown as 4821: Station number 01455370 is shown as 455370

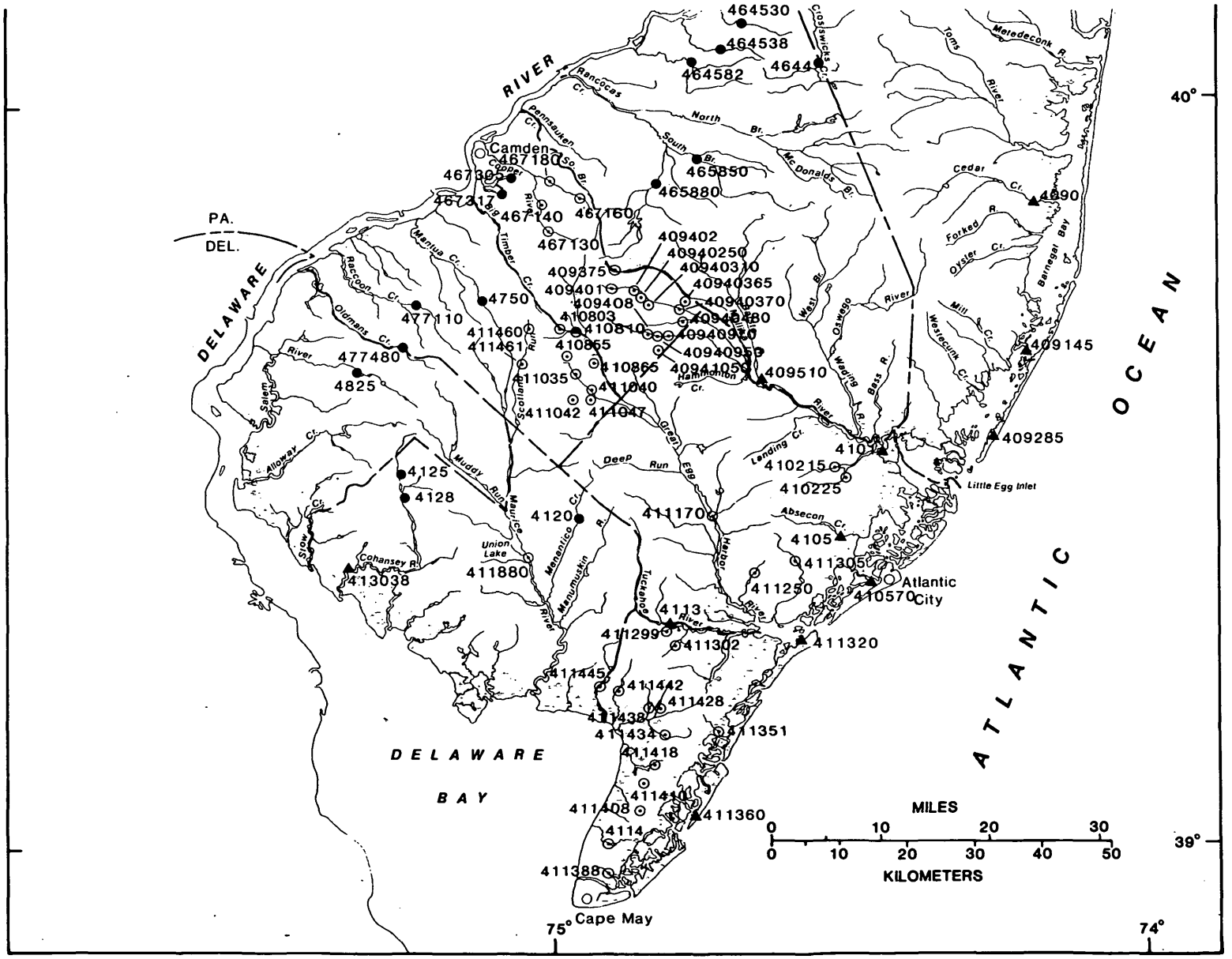


Figure 12.--Map showing location of low-flow and crest-stage partial-record stations

01367770 WALLKILL RIVER NEAR SUSSEX, NJ

LOCATION.--Lat 41°11'38", long 74°34'32", Sussex County, Hydrologic Unit 02020007, at bridge on Glenwood Road, 0.8 mi upstream of Papakating Creek, 1.7 mi southwest of Independence Corner, 2.0 mi southeast of Sussex, and 2.1 mi northwest of McAfee.

DRAINAGE AREA.--60.8 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
08...	1030	15	624	7.1	11.0	10.0	91	E1.8	1300	130
JAN 1992										
30...	1315	55	359	8.0	2.0	--	--	E2.3	130	20
MAR										
31...	1300	170	360	7.7	6.0	10.4	85	E1.3	80	20
MAY										
20...	1315	44	499	8.1	16.0	8.9	91	<1.2	50	30
JUL										
22...	1115	30	555	8.0	20.0	7.7	86	<1.0	220	340

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
08...	230	53	24	35	3.7	186	47	73	0.1
JAN 1992									
30...	75	--	--	--	--	100	18	27	0.1
MAR									
31...	120	28	13	20	1.0	102	22	40	0.2
MAY									
20...	190	45	19	24	1.4	159	21	45	0.1
JUL									
22...	210	48	22	29	2.3	184	20	61	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
08...	8.6	363	0.010	0.008	--	1.67	0.08	0.09	0.60
JAN 1992									
30...	4.7	152	0.130	0.070	0.83	0.65	<0.03	0.03	0.45
MAR									
31...	5.6	194	0.008	0.007	0.71	0.71	0.04	0.07	0.33
MAY									
20...	5.9	261	0.011	0.012	0.89	0.90	<0.03	<0.03	0.52
JUL									
22...	6.7	308	0.011	0.011	1.94	1.88	0.04	0.04	0.30

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
08...	0.51	--	2.2	<0.02	<0.02	4.6	0.3	2	0.08
JAN 1992									
30...	0.38	1.3	1.0	0.05	0.04	3.3	0.2	14	2.1
MAR									
31...	0.34	1.0	1.0	<0.02	<0.02	3.8	0.3	--	--
MAY									
20...	0.79	1.4	1.7	<0.02	<0.02	3.9	0.6	10	1.2
JUL									
22...	0.24	2.2	2.1	0.04	0.02	4.1	0.5	6	0.49

01367770 WALLKILL RIVER NEAR SUSSEX, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 1992 20...	1315	16	2	<10	20	<1	<1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAY 1992 20...	460	2	130	<0.10	1	<1	20

01367910 PAPAKATING CREEK AT SUSSEX, NJ

LOCATION.--Lat 41°12'02", long 74°35'59", Sussex County, Hydrologic Unit 02020007, at bridge on State Route 23 in Sussex, 0.7 mi downstream from Clove Brook, 2.6 mi southwest of Independence Corner, and 3.4 mi northwest of McAfee.

DRAINAGE AREA.--59.4 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
10...	1100	16	369	7.5	11.0	7.8	72	2.8	9200	540
JAN 1992										
29...	1200	75	--	7.1	0.0	12.2	--	E1.5	700	80
MAR										
30...	1300	180	204	7.9	4.0	10.4	80	4.7	130	30
MAY										
20...	1200	36	234	7.8	16.0	7.5	76	<1.1	490	40
JUL										
21...	1030	19	295	8.0	22.0	6.0	70	<1.0	790	580

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
10...	140	45	7.1	20	3.4	83	60	42	<0.1
JAN 1992									
29...	62	19	3.5	13	1.2	34	25	25	0.2
MAR									
30...	63	20	3.1	12	1.2	31	25	26	0.2
MAY									
20...	78	25	3.8	13	1.3	58	22	24	0.1
JUL									
21...	99	32	4.6	16	1.8	79	21	27	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
10...	7.6	237	0.028	0.029	0.37	0.44	0.42	0.42	0.98
JAN 1992									
29...	6.7	120	0.007	0.010	1.28	1.25	0.31	0.33	0.98
MAR									
30...	4.9	116	0.009	0.010	1.05	1.04	0.11	0.23	0.37
MAY									
20...	4.4	131	0.028	0.026	0.61	0.63	0.20	0.19	0.59
JUL									
21...	7.1	161	0.038	0.035	0.80	0.78	0.16	0.15	0.74

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
10...	0.82	1.3	1.3	0.08	0.10	4.8	0.6	26	1.1
JAN 1992									
29...	0.74	2.3	2.0	0.08	0.06	2.9	--	22	4.5
MAR									
30...	0.33	1.4	1.4	0.05	0.02	3.9	0.3	19	9.2
MAY									
20...	0.45	1.2	1.1	0.11	0.05	4.6	0.7	29	2.8
JUL									
21...	0.52	1.5	1.3	0.14	0.09	5.5	0.8	23	1.2

01367910 PAPAKATING CREEK AT SUSSEX, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 1992 20...	1200	23	<1	<10	10	<1	<1	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAY 1992 20...	150	<1	150	<0.10	<1	<1	20

01368000 WALLKILL RIVER NEAR UNIONVILLE, NY

LOCATION.--Lat 41°15'36", long 74°32'58", Sussex County, New Jersey, Hydrologic Unit 02020007, on right bank on downstream side of bridge on Quarryvill-Milton Road, 2.0 mi south of New York-New Jersey State line, and 3.0 mi south of Unionville.

DRAINAGE AREA.--140 mi^2.

PERIOD OF RECORD.--Water years 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
09...	1100	31	470	7.8	12.5	8.0	75	E1.7	5400	17
JAN 1992										
30...	1030	200	343	7.7	2.0	--	--	E1.9	80	20
APR										
02...	1100	300	280	7.4	5.0	10.9	87	E2.1	90	<10
MAY										
20...	1115	120	348	7.8	16.0	6.6	67	<1.0	270	20
JUL										
22...	1300	69	427	8.0	22.5	5.5	64	<1.0	220	40

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
09...	180	47	15	22	3.7	126	51	42	<0.1
JAN 1992									
30...	98	26	8.0	17	1.3	77	27	35	0.1
APR									
02...	100	27	7.9	16	3.5	67	24	34	0.2
MAY									
20...	140	37	12	19	1.5	110	22	37	0.1
JUL									
22...	160	41	14	22	1.9	137	20	45	0.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
09...	8.4	267	0.016	0.015	0.94	0.60	0.10	0.09	0.64
JAN 1992									
30...	6.3	171	0.085	0.073	1.06	0.93	0.04	0.04	0.50
APR									
02...	5.0	162	0.006	0.006	0.86	0.87	0.06	0.10	0.40
MAY									
20...	5.9	205	0.026	0.023	0.95	0.92	0.10	0.06	0.60
JUL									
22...	7.2	239	0.033	0.031	1.28	1.24	0.08	0.07	0.63

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
09...	0.52	1.6	1.1	0.08	0.04	5.4	0.5	11	0.92
JAN 1992									
30...	0.44	1.6	1.4	0.04	0.02	3.7	0.3	7	3.8
APR									
02...	0.46	1.3	1.3	0.02	<0.02	4.5	0.3	15	12
MAY									
20...	0.70	1.6	1.6	0.02	0.12	4.8	1.1	31	10
JUL									
22...	0.40	1.9	1.6	0.09	0.04	8.0	1.3	18	3.4

01368000 WALLKILL RIVER NEAR UNIONVILLE, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
OCT 1991										
09...	1100	--	20	1300	540	2.3	20	--	8	--
09...	1100	19	--	--	--	--	--	<1	--	<10
MAY 1992										
20...	1115	18	--	--	--	--	--	2	--	<10

DATE	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)
OCT 1991										
09...	--	--	<1	--	10	<5	--	20	--	13000
09...	<10	<1	--	<1	--	--	3	--	550	--
MAY 1992										
20...	20	<1	--	<1	--	--	2	--	930	--

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)
OCT 1991										
09...	--	<10	--	740	--	0.06	--	<10	--	<1
09...	3	--	110	--	<0.10	--	1	--	<1	--
MAY 1992										
20...	2	--	190	--	<0.10	--	2	--	<1	--

DATE	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
09...	--	200	19	<1.0	<0.1	6.0	1.4	2.2	0.4	0.2
09...	<10	--	--	--	--	--	--	--	--	--
MAY 1992										
20...	20	--	--	--	--	--	--	--	--	--

DATE	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	ORGANIC HALOGEN TOT REC FROM BOTTOM MATTERIAL (UG/G) AS CL
OCT 1991										
09...	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<0.1	<1.00	<10	1.94
09...	--	--	--	--	--	--	--	--	--	--
MAY 1992										
20...	--	--	--	--	--	--	--	--	--	--

01368950 BLACK CREEK NEAR VERNON, NJ

LOCATION.--Lat 41°13'21", long 74°28'33", Sussex County, Hydrologic Unit 02020007, at bridge on Maple Grange road, 0.6 mi upstream of confluence with Wawayanda Creek, 0.7 mi northwest of Maple Grange, and 1.7 mi northeast of Vernon.

DRAINAGE AREA.--17.3 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
10...	1145	4.7	669	8.2	11.5	10.7	100	E2.3	1100	79
JAN 1992										
28...	1245	36	545	7.9	0.5	9.6	67	E1.3	460	80
APR										
02...	1330	48	430	7.7	6.5	8.7	73	E2.1	110	20
MAY										
21...	1200	25	583	8.2	16.0	11.2	114	<1.0	170	120
JUL										
16...	1130	22	546	7.9	21.0	4.2	48	E1.8	16000	4200

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
10...	260	61	27	38	2.0	217	36	75	0.1
JAN 1992									
28...	190	45	19	25	1.4	162	29	50	0.2
APR									
02...	170	40	17	25	1.3	136	23	48	0.2
MAY									
21...	230	52	24	35	1.1	190	22	67	0.2
JUL									
16...	200	48	20	26	2.0	198	17	56	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
10...	8.6	380	0.015	0.013	0.39	0.41	0.06	0.05	0.63
JAN 1992									
28...	7.3	278	0.012	0.007	0.99	0.90	<0.03	<0.03	0.54
APR									
02...	6.5	246	0.009	0.008	0.71	0.74	0.05	0.03	0.43
MAY									
21...	5.8	324	0.019	0.019	0.61	0.60	<0.03	<0.03	0.47
JUL									
16...	9.5	299	0.023	0.022	0.31	0.30	0.14	0.10	0.97

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
10...	0.46	1.0	0.87	<0.02	<0.02	4.1	1.0	4	0.05
JAN 1992									
28...	0.54	1.5	1.4	0.02	0.03	3.8	0.3	19	1.8
APR									
02...	0.48	1.1	1.2	<0.02	<0.02	5.0	0.8	2	0.26
MAY									
21...	0.31	1.1	0.91	0.03	0.07	3.7	0.6	37	2.5
JUL									
16...	0.68	1.3	0.98	0.10	0.04	8.3	0.9	18	1.1

01368950 BLACK CREEK NEAR VERNON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 10...	1145	20	<1	<10	70	<1	<1	3
MAY 1992 21...	1200	18	1	<10	10	<1	<1	<1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 10...	270	1	80	<0.10	<1	<1	<10
MAY 1992 21...	390	<1	100	<0.10	<1	<1	10

01376800 HACKENSACK RIVER AT WEST NYACK, NY

LOCATION.--Lat 41 05'44", long 73 57'52", Rockland County, NY, Hydrologic Unit 02030103, on right bank 20 ft downstream from Penn Central Transportation Co. railroad bridge at West Nyack, 1,000 ft upstream from State Highway 59, and 1.0 mi downstream from DeForest Lake.

DRAINAGE AREA.--30.7 mi 2.

PERIOD OF RECORD.--December 1958 to current year.

REVISIONS.--WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder, stop-log control, and crest-stage gage. Datum of gage is 53.50 ft above sea level (levels by Hackensack Water Co.).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by DeForest Lake (see Reservoirs in Hackensack River Basin). Diversion from gaging station pool for municipal supply for village of Nyack (see Diversions in Hackensack River Basin). Discharge given for this station represents the flow of Hackensack River downstream from this diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft^3/s, Feb. 3, 1973, gage height, 9.38 ft, from floodmarks, from rating curve extended above 840 ft^3/s; maximum gage height, 10.52 ft, May 30, 1984; minimum daily discharge, 2.6 ft^3/s, June 12, 1965, Sept. 25-26, 30, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 157 ft^3/s, Nov. 22, 23, gage height, 4.23 ft; minimum daily, 12 ft^3/s, Feb. 12-14, Aug. 19, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	15	20	22	20	44	20	20	36	15	19	13
2	23	16	20	20	20	44	21	20	17	16	15	14
3	24	18	49	20	20	43	20	21	16	16	16	27
4	21	17	28	22	20	44	21	20	16	19	18	19
5	25	16	18	18	21	43	20	20	31	17	15	15
6	23	16	18	19	21	43	20	20	39	18	16	15
7	15	16	17	21	20	46	20	20	18	17	15	15
8	16	16	e16	21	20	39	21	21	19	17	15	16
9	16	20	e16	21	20	44	21	20	18	23	26	16
10	16	20	e20	21	17	46	21	22	16	17	17	16
11	20	23	e19	20	14	61	24	19	15	16	16	21
12	19	21	e18	20	12	41	21	20	15	16	17	16
13	18	18	e18	20	12	45	21	22	15	16	16	16
14	19	21	e18	23	12	45	20	20	14	18	19	16
15	18	19	e17	19	15	45	20	20	15	21	16	16
16	19	20	e17	19	27	45	21	23	14	16	18	15
17	22	20	e16	20	13	44	23	21	14	13	19	15
18	16	21	e16	19	13	42	23	21	16	13	22	15
19	15	20	19	19	13	45	23	20	21	13	12	17
20	15	20	20	19	16	46	20	20	29	13	14	15
21	16	22	20	19	23	44	21	20	17	14	13	15
22	16	55	20	20	28	43	21	20	17	15	13	17
23	14	51	20	27	30	42	19	20	15	23	13	24
24	15	19	19	25	32	43	20	23	20	16	13	16
25	16	19	20	19	37	44	23	21	16	16	12	15
26	16	22	21	19	49	50	19	21	16	17	13	19
27	16	22	21	19	42	54	19	21	23	17	13	18
28	16	22	21	19	41	21	19	20	15	17	13	18
29	15	20	24	20	41	19	20	21	16	18	14	16
30	15	20	20	20	---	22	20	21	16	17	13	16
31	16	---	21	21	---	23	---	66	---	20	13	---
TOTAL	554	645	627	631	669	1300	622	684	565	520	484	502
MEAN	17.9	21.5	20.2	20.4	23.1	41.9	20.7	22.1	18.8	16.8	15.6	16.7
MAX	25	55	49	27	49	61	24	66	39	23	26	27
MIN	14	15	16	18	12	19	19	19	14	13	12	13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

MEAN	32.6	32.2	37.9	42.5	51.6	67.5	72.9	54.1	35.1	33.6	28.8	35.1
MAX	84.2	88.6	121	125	152	151	204	162	162	127	83.3	100
(WY)	1990	1976	1973	1978	1973	1961	1983	1989	1972	1984	1966	1975
MIN	7.27	7.59	5.63	8.95	10.3	6.95	9.61	7.04	12.7	11.6	12.3	9.34
(WY)	1967	1967	1967	1967	1967	1981	1966	1965	1981	1977	1981	1962

01376800 HACKENSACK RIVER AT WEST NYACK, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1959 - 1992	
ANNUAL TOTAL	14880		7803			
ANNUAL MEAN	40.8		21.3		43.9	
HIGHEST ANNUAL MEAN					74.1	1984
LOWEST ANNUAL MEAN					13.4	1981
HIGHEST DAILY MEAN	500	Mar 4	66	May 31	1320	Feb 3 1973
LOWEST DAILY MEAN	14	Oct 23	12	Feb 12	2.6	Jun 12 1965
ANNUAL SEVEN-DAY MINIMUM	15	Oct 18	13	Aug 19	3.4	Sep 24 1966
10 PERCENT EXCEEDS	69		38		87	
50 PERCENT EXCEEDS	30		19		24	
90 PERCENT EXCEEDS	18		15		12	

e Estimated.

01377000 HACKENSACK RIVER AT RIVERVALE, NJ

LOCATION.--Lat 40°59'55", long 73°59'27", Bergen County, Hydrologic Unit 02030103, on upstream right bank at bridge on Westwood Avenue in Rivervale, 1.5 mi upstream from Pascack Brook, 4.6 mi upstream from Oradell Dam, and 27.2 mi upstream from mouth.

DRAINAGE AREA.--58.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WDR-NJ-80-1: 1968-79(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 22.51 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except those above 500 ft^3/s, which are fair. Flow regulated by De Forest Lake (since Feb. 1956) and Lake Tappan (since 1965), see Hackensack River basin, reservoirs in. Diversions from De Forest Lake and West Nyack, NY, for municipal water supply (see Hackensack River basin, diversions). Water occasionally diverted from Oradell Reservoir to Lake Tappan. Several measurements of water temperature, other than those published, were made during the year. Hackensack Water Co. gage-height telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	37	33	34	128	36	37	34	368	35	76	167
2	34	37	33	33	127	36	37	34	118	33	43	167
3	33	37	96	33	125	35	36	37	74	32	37	180
4	33	38	63	37	123	42	36	35	53	37	46	92
5	42	39	38	36	100	39	36	35	80	34	40	38
6	49	39	36	34	82	39	34	35	195	34	35	37
7	36	39	36	34	82	45	34	35	118	32	31	36
8	35	39	35	33	82	43	33	36	83	31	30	36
9	35	39	36	34	82	40	33	46	77	52	96	36
10	34	39	45	35	68	41	34	39	56	37	81	36
11	37	48	36	33	48	79	39	40	44	34	69	44
12	41	40	35	60	48	44	33	37	38	31	63	36
13	35	35	37	99	48	41	32	36	34	34	44	36
14	35	34	37	109	68	41	32	36	31	33	47	36
15	37	34	34	101	118	40	31	35	31	37	41	35
16	38	46	35	99	111	40	32	42	30	67	40	34
17	54	70	34	99	38	41	37	39	30	45	43	34
18	41	77	34	97	37	41	39	37	30	41	110	34
19	36	88	34	98	38	42	38	37	39	37	76	38
20	36	88	34	99	37	42	34	33	34	34	54	37
21	35	89	35	98	36	42	33	33	34	32	43	56
22	35	106	35	103	36	41	34	31	33	31	38	76
23	35	86	35	113	36	43	33	31	31	49	35	104
24	34	40	34	120	41	40	33	38	37	52	32	92
25	35	36	34	106	69	35	65	49	34	41	31	83
26	34	34	33	74	83	44	37	38	32	37	31	43
27	36	34	33	36	45	90	36	38	66	51	31	42
28	36	33	33	36	37	41	34	37	57	41	31	41
29	36	33	42	61	37	37	34	34	43	35	42	67
30	37	32	39	93	---	36	34	33	37	34	83	136
31	37	---	35	128	---	41	---	161	---	43	137	---
TOTAL	1145	1466	1189	2205	2010	1337	1070	1261	1967	1196	1636	1929
MEAN	36.9	48.9	38.4	71.1	69.3	43.1	35.7	40.7	65.6	38.6	52.8	64.3
MAX	54	106	96	128	128	90	65	161	368	67	137	180
MIN	33	32	33	33	36	35	31	31	30	31	30	34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

MEAN	59.1	73.8	80.7	89.5	93.9	135	139	104	74.3	77.4	71.1	63.7
MAX	312	240	202	251	221	379	438	310	319	339	197	177
(WY)	1956	1956	1973	1949	1951	1953	1983	1989	1972	1945	1955	1975
MIN	12.1	17.7	12.6	22.6	23.0	11.2	14.5	20.4	13.4	11.6	11.3	7.87
(WY)	1942	1950	1981	1982	1967	1981	1981	1981	1957	1954	1944	1953

01377000 HACKENSACK RIVER AT RIVERVALE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1942 - 1992	
ANNUAL TOTAL	29284		18411			
ANNUAL MEAN	80.2		50.3		88.4	
HIGHEST ANNUAL MEAN					156	1952
LOWEST ANNUAL MEAN					30.9	1981
HIGHEST DAILY MEAN	863	Mar 4	368	Jun 1	2190	May 31 1984
LOWEST DAILY MEAN	24	Jul 28	30	Jun 16	5.8	Sep 1 1953
ANNUAL SEVEN-DAY MINIMUM	27	Aug 12	32	Jun 12	6.3	Aug 30 1953
INSTANTANEOUS PEAK FLOW			581	Jun 1	2530	May 17 1989
INSTANTANEOUS PEAK STAGE			3.30	Jun 1	8.08	May 17 1989
INSTANTANEOUS LOW FLOW			29	Aug 8	.00	Jan 16 1970
10 PERCENT EXCEEDS	135		94		171	
50 PERCENT EXCEEDS	71		37		60	
90 PERCENT EXCEEDS	29		33		21	

01377000 HACKENSACK RIVER AT RIVERVALE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1964 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
22...	1100	34	356	7.7	10.5	10.0	89	2.7	330	50
JAN 1992										
28...	1130	36	380	7.9	1.0	13.7	95	2.3	70	20
APR										
07...	1230	34	450	8.0	7.5	13.3	111	2.7	80	<10
JUN										
08...	1200	80	460	8.0	21.0	7.4	83	E1.3	490	190
JUL										
21...	1100	33	443	7.7	23.0	8.8	103	E1.7	130	10

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
22...	110	33	6.0	27	1.8	82	18	52	0.1
JAN 1992									
28...	120	36	6.4	26	1.8	85	19	53	0.2
APR									
07...	120	37	6.7	37	1.6	84	21	75	0.1
JUN									
08...	120	39	6.6	38	1.7	85	19	73	0.1
JUL									
21...	130	39	6.9	37	1.7	96	17	72	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
22...	2.2	191	0.008	0.007	0.25	0.26	0.11	0.15	0.85
JAN 1992									
28...	2.7	199	0.007	0.007	0.56	0.56	0.03	0.06	0.59
APR									
07...	2.1	233	0.017	0.016	0.52	0.50	0.11	0.03	0.58
JUN									
08...	2.3	232	--	0.018	0.29	0.27	0.13	0.13	0.71
JUL									
21...	4.7	238	0.029	0.026	0.46	0.46	0.10	0.07	0.64

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
22...	0.41	1.1	0.67	0.04	0.04	4.7	1.6	9	0.83
JAN 1992									
28...	0.50	1.2	1.1	0.04	<0.02	4.1	0.6	--	--
APR									
07...	0.35	1.1	0.85	0.04	<0.02	4.3	0.9	6	0.55
JUN									
08...	0.50	1.0	0.77	0.03	<0.02	5.4	1.1	14	3.0
JUL									
21...	0.27	1.1	0.73	0.13	0.06	4.4	1.5	12	1.1

01377000 HACKENSACK RIVER AT RIVERVALE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
OCT 1991 22...	1100	--	<1	2	5.3	140	150	<0.1	1.3	--	2
JUN 1992 08...	1200	22	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991 22...	--	--	--	<1	--	2	<5	--	9	--
JUN 1992 08...	<10	50	<1	--	<1	--	--	34	--	190

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991 22...	2900	--	10	--	210	--	0.01	--	<10	--
JUN 1992 08...	--	2	--	230	--	<0.10	--	<1	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991 22...	<1	--	10	2	<1.0	<0.1	5.0	0.1	<1.0	0.2
JUN 1992 08...	--	10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991 22...	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<0.1	<1.00	<10
JUN 1992 08...	--	--	--	--	--	--	--	--	--	--

01377500 PASCACK BROOK AT WESTWOOD, NJ

LOCATION.--Lat 40°59'33", long 74°01'19", Bergen County, Hydrologic Unit 02030103, on right bank 75 ft upstream from Harrington Avenue in Westwood, 500 ft downstream from Musquapsink Brook, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--29.6 mi^2.

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WDR NJ-87-1: 1984 (P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 28.62 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Woodcliff Lake 3.0 mi above station (see Hackensack River basin, reservoirs in). Water diverted for municipal supply by Spring Valley Water Co., by pumpage from well fields in headwater area of Pascack Brook in vicinity of Spring Valley, NY, and by Park Ridge Water Department by pumping from wells above Woodcliff Lake probably reduces flow past this station. Several measurements of water temperature were made during the year. Hackensack Water Co. gage-height telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 23	0545	443	3.39	June 27	0915	403	3.28
June 5	2215	463	3.42	Sep. 3	2045	*559	*3.67

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	23	37	27	27	30	50	22	97	30	106	15
2	83	27	39	26	28	41	45	22	51	28	30	14
3	92	26	184	26	25	73	40	25	29	22	20	127
4	81	25	107	34	24	70	35	22	25	38	31	134
5	91	24	17	41	24	29	38	23	124	36	24	31
6	134	25	5.0	32	24	52	35	25	219	30	15	28
7	98	27	3.5	37	24	69	33	24	57	25	11	26
8	94	25	3.1	73	25	43	35	33	46	23	8.5	25
9	72	25	19	79	27	32	31	40	58	85	139	24
10	43	27	67	81	25	33	33	22	39	46	68	24
11	57	39	42	82	24	80	57	23	30	28	48	87
12	73	37	34	61	54	43	41	24	23	19	55	88
13	44	32	51	28	77	39	32	15	22	33	20	77
14	40	27	44	40	63	36	30	12	21	26	45	43
15	46	39	34	33	45	36	30	7.2	24	34	24	38
16	58	53	27	29	59	35	30	5.0	25	131	25	21
17	100	28	29	24	27	35	46	1.7	38	42	27	20
18	86	26	28	24	26	35	69	2.6	32	42	76	26
19	47	22	27	23	26	39	65	9.6	60	34	44	39
20	41	22	33	23	25	44	45	26	66	22	32	42
21	39	27	34	25	24	44	37	26	52	19	26	46
22	38	100	34	25	24	43	37	22	38	19	22	58
23	38	233	31	40	23	41	39	7.8	31	92	20	80
24	36	58	28	43	41	44	35	20	43	88	23	60
25	35	39	28	28	59	37	100	21	47	33	54	42
26	27	34	27	32	91	55	37	10	31	29	70	29
27	26	36	27	28	53	252	28	9.5	132	68	71	47
28	25	35	30	24	34	95	23	9.0	57	36	69	55
29	26	34	44	25	35	57	23	9.1	37	25	69	39
30	27	35	37	25	---	48	23	14	31	25	39	16
31	26	---	29	25	---	67	---	126	---	47	24	---
TOTAL	1769	1210	1179.6	1143	1063	1677	1202	658.5	1585	1255	1335.5	1401
MEAN	57.1	40.3	38.1	36.9	36.7	54.1	40.1	21.2	52.8	40.5	43.1	46.7
MAX	134	233	184	82	91	252	100	126	219	131	139	134
MIN	25	22	3.1	23	23	29	23	1.7	21	19	8.5	14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1992, BY WATER YEAR (WY)

MEAN	38.5	48.7	52.1	53.7	59.7	79.9	79.4	64.0	50.1	46.2	43.2	40.3
MAX	143	131	129	151	135	197	198	155	175	180	127	157
(WY)	1956	1978	1984	1979	1973	1953	1983	1989	1972	1945	1971	1971
MIN	10.1	9.83	15.8	10.8	15.7	34.8	28.9	21.2	18.2	14.2	9.99	9.45
(WY)	1942	1950	1940	1954	1954	1965	1991	1992	1939	1944	1935	1939

01377500 PASCACK BROOK AT WESTWOOD, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1935 - 1992	
ANNUAL TOTAL	16816.62		15478.6			
ANNUAL MEAN	46.1		42.3		54.6	
HIGHEST ANNUAL MEAN					88.6	1952
LOWEST ANNUAL MEAN					27.6	1965
HIGHEST DAILY MEAN	401	Mar 4	252	Mar 27	1770	Aug 28 1971
LOWEST DAILY MEAN	.45	Apr 26	1.7	May 17	.45	Apr 26 1991
ANNUAL SEVEN-DAY MINIMUM	10	Apr 22	7.6	May 13	6.3	Oct 19 1949
INSTANTANEOUS PEAK FLOW			559	Sep 3	2440	Sep 12 1971
INSTANTANEOUS PEAK STAGE			3.67	Sep 3	7.57	Sep 12 1971
INSTANTANEOUS LOW FLOW			1.1	May 17	.05	Apr 23 1991
10 PERCENT EXCEEDS	81		79		96	
50 PERCENT EXCEEDS	36		34		40	
90 PERCENT EXCEEDS	22		22		18	

01378500 HACKENSACK RIVER AT NEW MILFORD, NJ

LOCATION.--Lat 40°56'52", long 74°01'34", Bergen County, Hydrologic Unit 02030103, on right bank upstream from two masonry dams and two lift gates at pumping plant of Hackensack Water Co., New Milford, 4.0 mi downstream from Pascack Brook, and 21.8 mi upstream from mouth.

DRAINAGE AREA.--113 mi^2.

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October 1921, published in WSP 1302.

REVISED RECORDS: WSP 601: Drainage area. WSP 711: 1927-28(M). WRD-NJ 1970: 1969. WDR-NJ 1977: 1975(M). WDR-NJ 1984: 1983. WDR-NJ 1991: 1990.

GAGE.--Water-stage recorder and crest-stage gage above south dam. Datum of gage is 6.25 ft above sea level. October 1921 to November 23, 1923, nonrecording gage and Nov. 23, 1923, to Sept. 25, 1934, water-stage recorder at same site at datum 0.05 ft lower.

REMARKS.--No estimated daily discharges. Records fair except those from Oct. 1-8 and Oct. 21 to Nov. 22, which are poor. Records given herein do not include diversion at gage. Flow regulated by DeForest Lake, Lake Tappan, Woodcliff Lake 9.0 mi upstream from station, and Oradell Reservoir 0.6 mi upstream from station (see Hackensack River basin, reservoirs in). Water pumped into basin above gage from Sparkill Creek (Hudson River basin), Saddle River and Ramapo River (Passaic River basin) by Hackensack Water Company for municipal supply (see Hackensack River basin, diversions). Water diverted at gage, Oradell Reservoir, De Forest Lake, and West Nyack, NY, for municipal supply (see Hackensack River basin, diversions). Diversion at gage was discontinued on May 30, 1990. Several measurements of water temperature were made during the year.

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	.98	12	14	7.7	2.2	8.9	6.5	400	10	10	9.9
2	2.5	.85	13	11	5.4	2.5	5.8	6.5	63	11	11	9.9
3	3.8	.74	14	11	2.0	2.1	5.6	5.8	24	11	11	19
4	7.6	.70	6.5	11	2.1	2.8	6.6	5.9	7.9	10	10	9.0
5	11	.69	6.0	6.8	2.2	2.7	5.7	6.8	609	9.9	10	7.7
6	2.1	.71	9.0	11	2.5	2.5	6.5	5.9	296	10	9.9	7.7
7	1.1	.74	10	7.6	2.2	4.2	5.9	6.0	34	9.9	10	7.5
8	5.5	.76	12	8.1	2.5	2.4	6.7	8.3	33	9.8	9.9	7.4
9	5.2	.82	14	7.7	2.4	2.8	5.7	5.0	24	12	12	7.3
10	6.2	.86	7.8	8.6	2.1	4.1	6.5	6.5	11	9.8	9.9	8.3
11	8.5	.98	1.9	7.5	2.4	3.8	6.5	6.1	11	9.4	12	8.0
12	8.7	.84	5.3	7.7	2.1	1.4	6.4	6.2	11	10	9.8	7.8
13	10	.83	5.0	7.2	2.2	2.0	5.3	5.8	9.6	11	9.9	7.8
14	11	.83	5.3	8.0	2.2	2.0	5.3	6.5	9.3	10	9.7	8.2
15	15	.87	4.3	6.4	4.3	1.8	6.6	6.8	9.3	10	9.2	8.5
16	15	.93	4.5	7.3	2.7	1.4	6.8	7.3	10	10	8.9	8.0
17	14	.91	3.9	7.7	2.3	1.5	8.3	5.9	10	9.9	11	7.8
18	7.4	.90	3.9	6.7	2.4	1.3	6.2	6.6	9.9	10	12	7.7
19	9.8	.90	11	9.6	2.2	1.8	6.1	6.4	11	9.9	10	7.8
20	12	.90	7.2	7.2	2.0	1.2	5.9	6.3	9.1	9.8	10	7.4
21	8.0	1.3	5.7	6.5	2.3	1.2	5.3	6.4	10	9.9	9.9	7.3
22	.22	16	9.0	6.7	2.3	2.1	6.9	5.0	9.7	9.9	9.9	7.4
23	.36	7.0	4.5	8.5	2.0	1.4	6.5	1.5	9.6	12	9.9	7.4
24	.59	7.4	6.8	7.4	2.5	1.9	5.9	2.4	11	9.9	11	8.1
25	.81	9.1	6.2	7.1	2.3	1.6	7.8	1.7	9.8	9.7	24	7.4
26	.88	11	5.5	6.6	2.6	4.3	6.6	1.6	9.2	11	18	8.4
27	.90	11	4.3	6.6	2.4	2.4	6.5	1.7	10	8.9	10	9.0
28	.91	11	3.6	6.6	2.7	4.6	6.0	1.8	9.2	11	9.8	7.2
29	.93	11	5.0	7.2	2.6	5.3	6.2	1.9	9.2	10	10	7.6
30	.96	11	3.5	6.5	---	6.8	6.8	2.1	11	10	10	7.8
31	1.0	---	7.5	6.7	---	5.3	---	317	---	13	9.9	---
TOTAL	174.46	112.54	218.2	248.5	77.6	83.4	191.8	470.2	1700.8	318.7	338.6	250.3
MEAN	5.63	3.75	7.04	8.02	2.68	2.69	6.39	15.2	56.7	10.3	10.9	8.34
MAX	15	16	14	14	7.7	6.8	8.9	317	609	13	24	19
MIN	.22	.69	1.9	6.4	2.0	1.2	5.3	1.5	7.9	8.9	8.9	7.2

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	36.6	67.4	88.7	105	130	213	201	128	63.3	46.9	41.3	44.1
MAX	480	356	329	359	396	651	774	528	612	543	373	385
(WY)	1956	1928	1973	1937	1939	1936	1983	1989	1972	1945	1927	1927
MIN	.000	.000	.000	.000	.000	.000	.000	.39	.000	.000	.000	.000
(WY)	1922	1924	1932	1971	1977	1981	1981	1985	1977	1954	1924	1923

01378500 HACKENSACK RIVER AT NEW MILFORD, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	16875.41		4185.10			
ANNUAL MEAN	46.2		11.4		96.9	
HIGHEST ANNUAL MEAN					263	1928
LOWEST ANNUAL MEAN					.40	1981
HIGHEST DAILY MEAN	1810	Mar 4	609	Jun 5	4230	May 31 1984
LOWEST DAILY MEAN	.22	Oct 22	.22	Oct 22	.00	Oct 1 1921
ANNUAL SEVEN-DAY MINIMUM	.64	Aug 2	.67	Oct 22	.00	Oct 1 1921
INSTANTANEOUS PEAK FLOW			2300	Jun 6	4630	May 17 1989
INSTANTANEOUS PEAK STAGE			4.51	Jun 6	8.23	May 17 1989
INSTANTANEOUS LOW FLOW			.22	Oct 22	.00	Many days
10 PERCENT EXCEEDS	99		11		283	
50 PERCENT EXCEEDS	8.0		7.1		17	
90 PERCENT EXCEEDS	.85		1.4		.00	

RESERVOIRS IN HACKENSACK RIVER BASIN

01376700 DE FOREST LAKE.--Lat 41°06'23", long 73°58'01, Rockland County, NY, Hydrologic Unit 02030103, at dam on Hackensack River, 0.8 mi north of West Nyack, NY. DRAINAGE AREA, 27.5 mi^2. PERIOD OF RECORD, February 1956 to current year. REVISED RECORDS.--WDR NJ-84-1: Drainage area. GAGE, water-stage recorder. Datum of gage is sea level. REMARKS.--Reservoir is formed by earthfill dam with sheet piling cutoff and concrete spillway; dam completed and storage began in February 1956. Crest of dam topped by two 50 ft Bascule Gates, 5 ft high. Capacity 5,670,000,000 gal, elevation, 85.00 ft, top of Bascule gates. Flow regulated by 12-inch Howell-Bunger valve at elevation, 59.25 ft and 24-inch Howell-Bunger valve at elevation, 61.25 ft. Reservoir used for storage and water released by Hackensack Water Co., for municipal water supply.
COOPERATION.--Records provided by Hackensack Water Company.

01376950 LAKE TAPPAN.--Lat 41°01'05", long 74°00'05", Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River, 0.5 mi north of Old Tappan. DRAINAGE AREA, about 49.0 mi^2. PERIOD OF RECORD, October 1966 to current year. REVISED RECORDS, WDR NJ-89-1: Capacity. GAGE, water-stage recorder. Datum of gage is sea level.
REMARKS.--Reservoir is formed by earthfill dam, completed in 1966. Capacity, 3,853,000,000 gal, elevation, 55.00 ft at top of Bascule gates. Flow regulated by four Bascule gates and one sluice gate. Water is released for diversion at New Milford (diversion discontinued May 1990) and Haworth by Hackensack Water Co., for municipal water supply.
COOPERATION.--Records provided by Hackensack Water Company.

01377450 WOODCLIFF LAKE.--Lat 41°01', long 74°03', Bergen County, Hydrologic Unit 02030103, at dam on Pascack Brook, 0.7 mi north of Hillsdale. DRAINAGE AREA, 19.4 mi^2. PERIOD OF RECORD, December 1929 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. REVISED RECORDS, WDR NJ-89-1: Capacity. GAGE, water-stage recorder. Datum of gage is sea level.
REMARKS.--Reservoir is formed by earthfill dam, completed about 1905. The dam was modified in 1984, which increased capacity, 871,000,000 gal, elevation, 95.00 ft at top of Bascule gates. Flow is regulated by two Bascule gates 85 ft long and 6 ft high each and one 24-inch Ball valve. Water is released for diversion at New Milford (diversion discontinued May 1990) and Haworth by Hackensack Water Co., for municipal supply.
COOPERATION.--Records provided by Hackensack Water Company.

01378480 ORADELL RESERVOIR.--Lat 40°57', long 74°02', Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River at Oradell. DRAINAGE AREA, 113 mi^2. PERIOD OF RECORD, December 1922 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. REVISED RECORDS.--WDR NJ-84-1: Spillway elevation, WDR NJ-89-1: Capacity. GAGE, water-stage recorder. Datum of gage is sea level.
REMARKS.--Reservoir is formed by hollow concrete dam, completed in 1922. Capacity at spillway level, 3,507,000,000 gal, elevation, 23.16 ft. Flow regulated by seven sluice gates (7 by 9 ft). Prior to May 1990, water was released for diversion by Hackensack Water Co., 1 mi downstream from dam for municipal supply. Water is diverted from reservoir at Haworth by Hackensack Water Company, for municipal supply.
COOPERATION.--Records provided by Hackensack Water Company.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01376700 DE FOREST LAKE			01376950 LAKE TAPPAN		
Sept. 30.....	77.42	3,362	-	52.12	2,864	-
Oct. 31.....	77.41	3,359	-0.1	52.40	2,955	+4.5
Nov. 30.....	78.28	3,611	+13.0	52.77	3,077	+6.3
Dec. 31.....	79.84	4,070	+22.9	54.09	3,529	+22.6
CAL YR 1991			-7.3			-2.0
Jan. 31.....	80.14	4,160	+4.5	52.26	2,909	-30.9
Feb. 29.....	80.57	4,289	+7.1	51.32	2,608	-16.6
Mar. 31.....	81.91	4,695	+20.3	54.23	3,574	+48.2
Apr. 30.....	83.00	5,036	+17.6	55.00	3,851	+14.3
May 31.....	82.68	4,632	-20.2	55.46	4,019	+8.4
June 30.....	84.61	5,544	+47.0	55.05	3,870	-7.7
July 31.....	84.20	5,409	-6.7	55.14	3,899	+1.5
Aug. 31.....	83.82	5,289	-6.0	54.52	3,687	-10.6
Sept. 30.....	83.03	5,041	-12.8	53.51	3,332	-18.3
WTR YR 1992	-	-	+7.1	-	-	+2.0

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01377450 WOODCLIFF LAKE			01378480 ORADELL RESERVOIR		
Sept. 30.....	94.03	816	-	21.28	3,014	-
Oct. 31.....	90.27	614	-10.1	20.19	2,746	-13.4
Nov. 30.....	90.86	645	+1.6	20.39	2,794	+2.5
Dec. 31.....	90.85	644	-.05	19.84	2,662	-6.6
CAL YR 1991			-.1			-2.3
Jan. 31.....	89.23	562	-4.1	18.63	2,380	-14.1
Feb. 29.....	88.74	537	-1.4	18.10	2,260	-6.6
Mar. 31.....	91.17	661	+6.2	22.88	3,431	+58.4
Apr. 30.....	90.90	648	-.7	22.50	3,329	-5.3
May 31.....	94.75	846	+9.9	23.03	3,472	+7.1
June 30.....	95.13	879	+1.7	22.06	3,253	-11.3
July 31.....	95.49	899	+1.0	21.30	3,019	-11.7
Aug. 31.....	93.01	761	-6.9	19.56	2,597	-21.1
Sept. 30.....	91.03	654	-5.5	19.67	2,622	+1.3
WTR YR 1992	-	-	-.7	-	-	-1.7

† Elevation at 2400 of the last day of each month.

DIVERSIONS INTO AND FROM HACKENSACK RIVER BASIN

01376272 Hackensack Water Co., diverts water from Sparkill Creek (Hudson River basin) at foot of Danny Lane in Northvale, 300 ft south of New York-New Jersey state line and 0.6 mi upstream of Sparkill Brook. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records provided by Hackensack Water Co.

01376699 Spring Valley Water Co., diverts water from De Forest Lake for municipal supply in Rockland County, NY. Records provided by Spring Valley Water Co.

01376810 Village of Nyack, NY, diverts water from Hackensack River 100 ft downstream from gaging station on Hackensack River at West Nyack, NY (station 01376800, measured flow includes diversions) for municipal supply. Records provided by Board of Water Commissioners of Nyack, NY.

01378490 Hackensack Water Co., diverts water for municipal supply from Oradell Reservoir at Haworth pumping station (station 01378478) 2.0 mi upstream from gaging station on Hackensack River at New Milford and prior to May 1990 from Hackensack River, at New Milford pumping station just upstream of gaging station on Hackensack River at New Milford, NJ (station 01378500). Diversion from the New Milford pumping station was discontinued in May 1990. Records provided by Hackensack Water Co.

01378520 Hackensack Water Co., diverts water from Hirshfeld Brook, a tributary of the Hackensack River, below the gaging station on Hackensack River at New Milford, NJ, for municipal supply. Records provided by Hackensack Water Co.

01388981 Hackensack Water Co., diverts water from the Wanaque South pumping station on the Pompton River at Two Bridges, 750 ft upstream from the Passaic River, to Oradell Reservoir. Water can also be diverted from Wanaque Reservoir to Oradell Reservoir in the Hackensack River basin. Figures given herein include diversion from both sources. Formerly diversion was from the Ramapo River (see station 01387991). Records provided by Hackensack Water Company.

01391210 Hackensack Water Co., diverts water from Saddle River (Passaic River basin) just north of bridge on State Route 4 at Arcola. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records provided by Hackensack Water Co.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	01376699 SPRING VALLEY WATER CO.	01376810 WEST NYACK, NY	01378490 HACKENSACK WATER CO.
October	8.69	2.50	151
November	7.74	2.33	143
December	7.60	2.30	143
CAL YR 1991	8.95	2.55	161
January	5.55	2.41	151
February	0	2.54	154
March	0	2.44	142
April	2.07	2.44	143
May	10.1	2.64	156
June	15.3	2.65	167
July	14.9	2.64	164
August	14.2	2.61	159
September	15.0	2.48	156
WTR YR 1992	8.43	2.50	152

The following are diversions by pumpage from sources other than the Hackensack River into Oradell Reservoir. These figures are included in diversions from Hackensack River as noted above (station 01378490).

MONTH	01376272 SPARKILL CREEK (HUDSON RIVER BASIN)	01378520 HIRSHFELD BROOK (HACKENSACK RIVER BASIN)	01388981 POMPTON RIVER (PASSAIC RIVER BASIN)	01391210 SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October	0.03	1.66	15.5	10.6	0.43
November	0	1.46	15.1	13.7	.46
December	0	.28	1.38	6.88	.24
CAL YR 1991	.10	.97	21.0	4.21	.45
January	0	.19	0	5.24	.15
February	0	1.70	0	8.53	.23
March	.47	2.33	41.8	13.2	1.19
April	0	0	30.6	0	.30
May	0	1.01	60.6	2.23	.81
June	0	1.63	28.8	10.8	.52
July	0	2.22	43.1	16.3	.59
August	0	0	12.0	0	.51
September	0	0	0	0	.55
WTR YR 1992	.04	1.04	20.7	7.29	.50

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ

LOCATION.--Lat 40°40'48", long 74°31'45", Somerset County, Hydrologic Unit 02030103, on right bank 200 ft downstream from Davis Bridge on Maple Avenue, 0.7 mi northwest of Millington, and 1.8 mi downstream from Black Brook.

DRAINAGE AREA.--55.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1903 to June 1906 (published as "at Millington"), October 1921 to current year. Monthly discharge only for some periods published in WSP 1302.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1905(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete-block control. Datum of gage is 215.60 ft above sea level (levels from New Jersey Geological Survey bench mark). Nov. 25, 1903 to July 15, 1906, nonrecording gage at bridge 0.8 mi downstream at different datum. Nov. 10, 1921 to Sept. 1, 1923, nonrecording gage at site 200 ft downstream at present datum. Oct. 31, 1923 to July 3, 1925, nonrecording gage and concrete control at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, was discontinued in April 1979 and the installation dismantled. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	1145	*1,060	*7.99	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	23	52	56	46	77	144	43	177	26	86	13
2	67	23	52	51	38	70	118	41	138	21	51	12
3	51	22	172	53	35	62	96	38	118	20	39	15
4	40	22	363	86	35	56	80	33	88	41	40	33
5	33	21	305	147	33	50	70	33	203	33	34	23
6	30	20	249	123	29	47	62	34	979	30	28	17
7	31	20	184	110	29	55	55	31	980	28	25	18
8	28	20	136	91	30	101	52	33	901	24	22	18
9	27	19	108	78	28	91	48	59	752	109	28	18
10	27	19	125	79	23	86	50	55	458	107	39	18
11	26	28	116	70	22	168	57	58	255	56	27	27
12	31	36	98	62	23	157	61	48	152	48	30	22
13	27	33	95	57	20	126	55	42	101	46	26	17
14	24	33	108	77	22	104	49	37	73	75	28	17
15	26	33	104	108	30	83	45	32	57	82	27	17
16	47	32	85	78	119	66	43	37	47	88	27	16
17	46	30	67	61	131	59	59	40	39	71	32	16
18	79	27	61	49	121	55	66	37	35	64	38	15
19	64	26	48	34	119	58	69	34	36	56	36	15
20	56	25	39	25	110	68	68	29	45	46	30	14
21	48	26	37	24	91	67	64	27	37	39	28	13
22	42	72	42	24	79	67	61	25	34	33	25	14
23	38	193	42	40	71	71	68	23	32	35	23	20
24	35	175	43	153	68	65	60	22	33	48	21	17
25	33	151	38	113	68	66	75	27	38	36	19	14
26	32	123	33	81	128	112	70	26	30	33	18	24
27	30	96	32	74	143	395	65	27	27	35	19	36
28	29	75	30	59	121	395	57	26	25	33	19	36
29	26	63	47	47	104	330	52	24	23	28	17	29
30	25	55	83	44	---	229	46	22	25	25	15	25
31	23	---	66	45	---	180	---	65	---	30	14	---
TOTAL	1211	1541	3060	2199	1916	3616	1965	1108	5938	1446	911	589
MEAN	39.1	51.4	98.7	70.9	66.1	117	65.5	35.7	198	46.6	29.4	19.6
MAX	90	193	363	153	143	395	144	65	980	109	86	36
MIN	23	19	30	24	20	47	43	22	23	20	14	12
CFSM	.71	.93	1.78	1.28	1.19	2.11	1.18	.65	3.57	.84	.53	.35
IN.	.81	1.03	2.05	1.48	1.29	2.43	1.32	.74	3.99	.97	.61	.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1992, BY WATER YEAR (WY)

MEAN	45.8	86.0	103	112	130	184	144	93.8	58.5	45.3	51.5	52.8
MAX	187	340	335	463	380	430	420	365	292	307	397	380
(WY)	1990	1933	1984	1905	1904	1936	1983	1989	1972	1975	1942	1971
MIN	3.56	7.47	8.18	6.78	26.1	64.2	25.9	20.3	3.95	1.25	1.37	.73
(WY)	1964	1966	1966	1981	1934	1981	1985	1965	1965	1965	1966	1964

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1904 - 1992	
ANNUAL TOTAL	29513.8		25487			
ANNUAL MEAN	80.9		69.6		91.0	
HIGHEST ANNUAL MEAN					163	1984
LOWEST ANNUAL MEAN					32.3	1965
HIGHEST DAILY MEAN	620	Jan 18	980	Jun 7	1800	Jan 8 1905
LOWEST DAILY MEAN	9.8	Jul 20	12	Sep 2	.30	Sep 13 1966
ANNUAL SEVEN-DAY MINIMUM	12	Jul 15	15	Sep 16	.47	Sep 11 1964
INSTANTANEOUS PEAK FLOW			1060	Jun 6	2000a	Jan 9 1905
INSTANTANEOUS PEAK STAGE			7.99	Jun 6	9.73	Aug 29 1971
INSTANTANEOUS LOW FLOW			12	Sep 2	.20	Sep 12 1966
ANNUAL RUNOFF (CFSM)	1.46		1.26		1.64	
ANNUAL RUNOFF (INCHES)	19.82		17.11		22.31	
10 PERCENT EXCEEDS	172		122		224	
50 PERCENT EXCEEDS	52		42		48	
90 PERCENT EXCEEDS	16		21		8.9	

a From rating curve extended above 1,400 ft^3/s on basis of velocity-area study.

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1962 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
28...	1000	30	260	7.3	14.0	5.5	54	<1.0	1100	40
FEB 1992										
03...	1100	33	283	7.4	2.0	14.5	106	E2.1	11	<10
MAR										
26...	1200	97	305	7.5	6.5	10.5	86	4.5	90	<10
MAY										
18...	1045	37	--	7.7	17.5	--	--	2.7	490	70
JUL										
23...	1030	29	240	7.5	22.0	2.5	29	<1.0	170	<100

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
28...	79	19	7.6	21	2.8	61	16	33	<0.1
FEB 1992									
03...	82	20	7.8	23	1.9	50	24	40	0.1
MAR									
26...	73	18	6.8	27	1.6	42	21	55	<0.1
MAY									
18...	78	19	7.5	20	1.4	64	10	36	0.1
JUL									
23...	77	19	7.1	17	1.1	69	5.0	27	0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
28...	12	148	E0.003	<0.003	0.07	0.07	<0.03	<0.03	0.47
FEB 1992									
03...	6.5	155	<0.003	<0.003	0.28	0.27	<0.03	0.03	0.33
MAR									
26...	4.2	160	0.006	0.005	0.18	0.17	0.08	0.09	0.37
MAY									
18...	8.4	141	E0.003	E0.004	0.12	0.12	0.03	<0.03	0.58
JUL									
23...	18	136	0.006	0.006	0.09	0.11	0.05	0.06	0.62

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
28...	0.37	0.54	0.44	0.56	0.10	9.1	0.5	6	0.49
FEB 1992									
03...	0.33	0.61	0.60	0.03	0.03	5.7	0.2	2	0.18
MAR									
26...	0.28	0.55	0.45	0.11	0.02	5.8	0.3	8	2.1
MAY									
18...	0.48	0.70	0.60	0.14	0.22	8.2	0.7	19	1.9
JUL									
23...	0.46	0.71	0.57	0.28	0.15	--	1.0	14	1.1

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 28...	1000	27	<1	<10	120	<1	2	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 28...	600	2	100	<0.10	4	<1	<10

01379500 PASSAIC RIVER NEAR CHATHAM, NJ

LOCATION.--Lat 40°43'31", long 74°23'23", Morris County, Hydrologic Unit 02030103, on left bank 150 ft downstream from Stanley Avenue bridge in Chatham, and 3.0 mi upstream from Canoe Brook.

DRAINAGE AREA.--100 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1903 to December 1911, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR NJ-86-1: 1984 (M).

GAGE.--Water-stage recorder. Concrete control since Sept. 19, 1938. Datum of gage is 193.51 ft above sea level. Prior to Dec. 31, 1911, nonrecording gage at bridge 150 ft upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, during water years 1903-79. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	2100	*1,700	*6.87	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	34	81	102	76	135	273	74	398	44	106	28
2	121	35	88	100	e76	113	211	70	291	42	113	27
3	88	33	312	89	e69	104	174	65	192	44	73	30
4	66	32	365	166	61	93	143	59	145	75	64	45
5	57	33	347	245	56	85	122	60	628	71	59	52
6	68	31	304	226	51	78	108	61	1120	63	52	37
7	48	32	255	210	51	102	97	59	1200	53	46	31
8	42	32	207	183	53	185	89	62	1160	46	42	34
9	39	32	189	160	49	165	84	100	1090	318	42	36
10	39	32	209	167	e44	144	82	106	984	258	62	53
11	41	53	202	146	47	327	107	102	799	131	60	72
12	44	51	181	120	e45	322	113	91	577	82	55	53
13	42	49	177	105	42	226	98	75	342	75	50	38
14	36	43	196	167	41	176	86	67	163	149	59	32
15	47	41	187	236	62	144	77	58	108	167	56	32
16	79	40	161	193	229	118	78	87	88	194	51	33
17	126	38	136	e112	237	102	104	106	74	141	53	30
18	201	36	117	e87	190	95	127	77	64	111	77	29
19	146	36	e92	e69	190	100	127	69	71	95	71	28
20	96	34	e76	e52	187	114	123	59	77	81	57	26
21	75	35	71	e47	156	123	115	51	71	68	50	25
22	65	160	69	e47	131	118	109	46	59	59	46	30
23	57	309	70	81	116	121	132	43	55	74	41	47
24	52	271	71	292	110	120	132	46	59	101	38	38
25	49	236	66	e230	111	124	126	54	65	78	37	31
26	45	212	55	e174	224	267	118	48	58	59	35	79
27	43	178	53	e144	261	598	109	49	48	59	65	71
28	39	137	48	e117	203	645	101	48	44	61	47	69
29	38	109	90	e98	170	545	89	45	41	54	39	60
30	37	90	175	e88	---	444	81	41	40	48	31	46
31	36	---	150	78	---	364	---	211	---	72	28	---
TOTAL	2138	2484	4800	4331	3338	6397	3535	2189	10111	2973	1705	1242
MEAN	69.0	82.8	155	140	115	206	118	70.6	337	95.9	55.0	41.4
MAX	201	309	365	292	261	645	273	211	1200	318	113	79
MIN	36	31	48	47	41	78	77	41	40	42	28	25
CFSM	.69	.83	1.55	1.40	1.15	2.06	1.18	.71	3.37	.96	.55	.41
IN.	.80	.92	1.79	1.61	1.24	2.38	1.32	.81	3.76	1.11	.63	.46

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1992, BY WATER YEAR (WY)

MEAN	89.1	157	200	224	240	336	263	176	117	83.7	98.2	96.4
MAX	576	590	655	735	493	700	711	637	533	539	664	713
(WY)	1904	1973	1984	1979	1908	1907	1983	1989	1972	1975	1942	1971
MIN	8.05	13.6	32.3	21.5	63.2	94.5	54.3	7.52	13.6	7.74	7.35	4.70
(WY)	1965	1950	1940	1981	1980	1911	1985	1903	1965	1966	1957	1906

01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1903 - 1992		
ANNUAL TOTAL	54633		45243				
ANNUAL MEAN	150		124		172		
HIGHEST ANNUAL MEAN					305		1984
LOWEST ANNUAL MEAN					67.7		1965
HIGHEST DAILY MEAN	962	Jan 18	1200	Jun 7	2990	Jan 9	1905
LOWEST DAILY MEAN	22	Jul 20	25	Sep 21	2	May 15	1903
ANNUAL SEVEN-DAY MINIMUM	25	Sep 12	29	Sep 16	2	May 15	1903
INSTANTANEOUS PEAK FLOW			1700	Jun 5	3380	Aug 2	1973
INSTANTANEOUS PEAK STAGE			6.87	Jun 5	9.36a	Aug 2	1973
ANNUAL RUNOFF (CFSM)	1.50		1.24		1.72		
ANNUAL RUNOFF (INCHES)	20.32		16.83		23.35		
10 PERCENT EXCEEDS	320		229		457		
50 PERCENT EXCEEDS	92		76		83		
90 PERCENT EXCEEDS	33		37		16		

a From floodmark.
e Estimated.

01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to September 1968.
SUSPENDED-SEDIMENT DISCHARGE: July 1963 to September 1968.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
28...	1100	38	536	7.6	14.0	8.4	82	E2.1	460	20
FEB 1992										
04...	1100	56	609	7.5	1.5	--	--	E2.3	170	50
MAR										
26...	1100	207	457	7.6	3.0	15.2	113	2.8	1400	190
MAY										
18...	1300	74	--	7.7	16.5	--	--	2.6	1100	70
JUL										
23...	1300	68	480	7.6	22.5	5.7	67	E1.5	>24000	15000

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
28...	110	27	9.7	63	3.9	75	42	91	0.2
FEB 1992									
04...	110	26	10	78	2.7	52	37	120	0.2
MAR									
26...	91	23	8.2	46	1.8	47	26	91	<0.1
MAY									
18...	92	23	8.5	27	2.2	66	22	45	0.1
JUL									
23...	97	23	9.6	53	2.7	75	27	72	0.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
28...	13	307	0.071	0.068	2.75	2.73	0.21	0.22	1.0
FEB 1992									
04...	8.8	324	0.017	0.019	2.18	2.17	0.25	0.19	0.78
MAR									
26...	6.5	235	0.023	0.020	0.98	0.94	0.13	0.16	0.70
MAY									
18...	11	186	E0.005	<0.003	1.67	1.67	0.20	0.19	1.0
JUL									
23...	15	256	0.097	0.092	2.01	1.96	0.27	0.24	1.2

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
28...	0.82	3.8	3.6	0.58	0.47	7.4	0.5	11	1.1
FEB 1992									
04...	0.61	3.0	2.8	0.35	0.29	4.9	0.3	4	0.60
MAR									
26...	0.52	1.7	1.5	0.20	0.14	5.4	0.7	25	14
MAY									
18...	0.76	2.7	2.4	0.40	0.24	7.6	1.8	44	8.8
JUL									
23...	0.98	3.2	2.9	0.44	0.30	5.0	0.5	36	6.6

01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 28...	1100	25	<1	<10	250	<1	1	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 28...	560	3	60	<0.10	3	<1	<10

01379700 ROCKAWAY RIVER AT BERKSHIRE VALLEY, NJ

LOCATION.--Lat 40°55'51", long 74°35'42", Morris County, Hydrologic Unit 02030103, on left bank 60 ft downstream from bridge on Berkshire Valley Road in Berkshire Valley, 2.7 mi upstream from Stephens Brook, and 3.8 mi northwest of Dover.

DRAINAGE AREA.--24.4 mi^2.

PERIOD OF RECORD.--Low-flow partial-record station water years 1960-72. May 1985 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 682.8 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Some regulation from lakes and reservoirs upstream. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 11, 1936, reached a stage of 6.7 ft, present datum, discharge not determined. Flood of April 5, 1984, reached a stage of 9.05 ft, from floodmarks, discharge 1,290 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 28	0345	169	5.47	June 6	2245	*328	*6.09

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	22	35	27	48	49	103	38	113	39	46	23
2	18	23	34	25	48	47	97	39	105	33	33	22
3	19	24	56	26	40	49	91	44	89	32	28	31
4	19	23	62	30	36	46	85	39	70	38	26	40
5	19	20	60	33	35	40	79	40	85	34	26	30
6	21	17	57	30	35	31	72	42	269	28	25	27
7	19	16	51	30	28	40	68	41	272	21	21	28
8	16	15	47	31	29	54	65	49	192	19	17	27
9	15	15	45	31	28	53	64	63	154	36	23	26
10	14	15	46	32	26	58	68	57	127	32	22	26
11	15	19	43	32	29	82	68	50	108	28	23	30
12	16	21	40	31	32	82	63	49	88	21	31	26
13	15	19	39	30	28	81	59	51	73	30	33	25
14	e11	19	39	39	28	76	51	47	62	25	32	26
15	e10	18	39	44	29	72	52	44	52	26	30	26
16	e16	21	38	42	43	67	53	52	44	35	32	25
17	12	36	35	38	35	67	53	46	38	24	34	32
18	17	39	31	35	39	68	57	37	36	30	34	26
19	15	35	29	32	45	73	62	32	54	30	30	24
20	14	30	30	30	45	71	61	37	55	26	29	30
21	16	29	31	30	43	66	55	40	53	26	28	29
22	18	38	29	30	38	56	56	37	48	26	26	30
23	19	50	29	39	34	49	67	31	43	30	26	32
24	18	42	29	72	32	44	62	28	46	35	26	30
25	19	38	28	69	38	48	63	29	41	30	26	21
26	19	36	27	58	54	63	63	28	37	26	28	20
27	21	36	26	58	58	149	52	29	55	34	29	23
28	22	35	26	49	58	161	44	28	54	29	31	21
29	21	34	29	47	56	137	43	25	51	33	29	19
30	22	34	32	47	---	116	40	24	43	38	25	18
31	22	---	28	48	---	109	---	63	---	40	23	---
TOTAL	537	819	1170	1195	1117	2204	1916	1259	2557	934	872	793
MEAN	17.3	27.3	37.7	38.5	38.5	71.1	63.9	40.6	85.2	30.1	28.1	26.4
MAX	22	50	62	72	58	161	103	63	272	40	46	40
MIN	10	15	26	25	26	31	40	24	36	19	17	18
CFSM	.71	1.12	1.55	1.58	1.58	2.91	2.62	1.66	3.49	1.23	1.15	1.08
IN.	.82	1.25	1.78	1.82	1.70	3.36	2.92	1.92	3.90	1.42	1.33	1.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

MEAN	39.9	56.2	60.2	46.4	52.0	71.8	82.1	72.7	43.9	28.0	24.6	33.2
MAX	95.2	73.0	105	73.1	82.1	96.6	152	170	85.2	49.9	59.7	100
(WY)	1990	1986	1991	1991	1990	1986	1987	1989	1992	1990	1990	1987
MIN	12.2	27.3	25.9	28.1	26.4	46.5	39.1	40.6	19.4	12.3	13.2	14.0
(WY)	1989	1992	1989	1989	1987	1989	1988	1992	1987	1991	1991	1991

01379700 ROCKAWAY RIVER AT BERKSHIRE VALLEY, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1985 - 1992	
ANNUAL TOTAL	14892.1		15350.3			
ANNUAL MEAN	40.8		41.9		51.5	
HIGHEST ANNUAL MEAN					61.2	1990
LOWEST ANNUAL MEAN					41.9	1992
HIGHEST DAILY MEAN	191	Apr 22	272	Jun 7	630	Sep 14 1987
LOWEST DAILY MEAN	2.3	Oct 15	2.3	Oct 15	2.3	Oct 15 1991
ANNUAL SEVEN-DAY MINIMUM	8.8	Jul 15	10	Oct 11	7.7	Oct 13 1988
INSTANTANEOUS PEAK FLOW			328	Jun 6	744	Sep 14 1987
INSTANTANEOUS PEAK STAGE			6.09	Jun 6	7.23	Sep 14 1987
INSTANTANEOUS LOW FLOW			---		4.4	Oct 13 1988
ANNUAL RUNOFF (CFSM)	1.67		1.72		2.11	
ANNUAL RUNOFF (INCHES)	22.70		23.40		28.68	
10 PERCENT EXCEEDS	80		68		94	
50 PERCENT EXCEEDS	29		34		38	
90 PERCENT EXCEEDS	12		19		14	

e Estimated.

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ

LOCATION.--Lat 40°57'34", long 74°32'24", Morris County, Hydrologic Unit 02030103, on left bank at Picatinny Arsenal, 500 ft upstream from Picatinny Lake, and 0.55 mi downstream from Burnt Meadow Brook.

DRAINAGE AREA.--7.65 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 712.54 ft above sea level (U.S. Army, Picatinny Arsenal, bench mark).

REMARKS.--No estimated daily discharges. Records good. Some regulation by Lake Denmark and Green Pond. Several measurements of water temperature were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0215	*103	*2.57	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	1.6	2.9	3.8	6.7	7.5	26	9.9	21	7.5	8.0	5.0
2	2.2	1.6	3.1	3.8	6.1	7.9	23	9.6	21	7.0	6.8	4.9
3	2.1	1.5	12	3.8	5.8	7.5	20	9.9	19	6.9	6.3	7.1
4	2.1	1.5	14	5.2	5.6	7.3	18	9.1	17	7.5	6.2	9.1
5	2.1	1.5	9.6	5.6	5.6	7.1	16	9.0	29	7.0	6.0	7.0
6	2.3	1.5	7.8	5.1	5.3	7.6	14	8.6	81	6.8	5.8	6.3
7	2.3	1.5	6.7	4.9	5.3	9.7	13	8.2	62	6.4	5.7	6.3
8	2.1	1.4	6.1	4.8	5.3	12	12	8.3	53	6.2	5.5	6.3
9	1.9	1.3	5.8	4.8	5.1	11	11	9.6	46	8.9	7.5	6.0
10	1.9	1.3	7.0	5.0	4.8	12	11	9.1	38	7.4	6.6	6.0
11	2.0	1.8	5.7	4.8	4.7	22	13	9.2	31	6.7	6.3	6.8
12	2.1	1.8	5.2	4.6	4.6	20	12	8.9	26	6.6	6.5	6.0
13	2.0	1.5	5.1	4.5	4.3	21	11	8.3	21	8.5	6.1	5.7
14	1.9	1.4	5.2	7.5	4.3	19	9.6	8.0	18	7.8	6.3	5.5
15	2.6	1.4	4.9	7.2	5.0	17	9.2	7.6	16	7.7	6.1	5.4
16	3.5	1.3	4.6	6.3	6.9	15	9.8	10	13	9.0	6.2	5.0
17	3.7	1.3	4.3	5.8	6.1	14	11	11	11	7.9	6.6	4.9
18	4.1	1.2	4.2	5.4	5.9	13	11	9.9	9.8	7.5	7.4	4.8
19	3.3	1.2	3.9	4.9	6.4	15	12	8.7	13	7.2	6.6	5.0
20	3.1	1.2	3.6	4.5	6.2	14	11	7.8	13	6.9	6.2	4.8
21	2.9	1.5	3.8	4.6	6.2	12	11	7.5	11	6.6	5.9	4.3
22	2.8	5.0	3.8	4.8	6.1	11	12	7.2	9.6	6.5	5.7	4.3
23	2.6	7.6	3.8	7.4	6.0	11	14	6.8	8.5	7.2	5.5	4.5
24	2.6	5.6	3.8	11	5.7	9.9	13	6.6	9.2	7.5	5.4	4.2
25	2.4	4.6	3.6	8.3	5.7	9.7	15	6.7	8.8	6.9	5.4	4.1
26	2.3	3.9	3.4	7.7	8.4	14	14	6.4	7.8	7.0	5.3	5.0
27	2.3	3.5	3.4	7.3	7.8	41	13	6.3	13	8.0	6.1	4.9
28	2.2	3.2	3.4	7.1	7.8	41	12	6.1	10	7.0	6.3	4.8
29	2.0	3.1	4.3	7.0	8.1	37	11	5.8	8.8	6.6	5.8	4.4
30	1.9	2.9	4.9	7.0	---	32	10	5.8	8.0	6.3	5.4	4.1
31	1.7	---	4.2	6.9	---	31	---	14	---	7.1	5.2	---
TOTAL	75.3	69.7	164.1	181.4	171.8	509.2	398.6	259.9	653.5	224.1	190.7	162.5
MEAN	2.43	2.32	5.29	5.85	5.92	16.4	13.3	8.38	21.8	7.23	6.15	5.42
MAX	4.1	7.6	14	11	8.4	41	26	14	81	9.0	8.0	9.1
MIN	1.7	1.2	2.9	3.8	4.3	7.1	9.2	5.8	7.8	6.2	5.2	4.1
CFSM	.32	.30	.69	.76	.77	2.15	1.74	1.10	2.85	.94	.80	.71
IN.	.37	.34	.80	.88	.84	2.48	1.94	1.26	3.18	1.09	.93	.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

MEAN	8.39	11.2	17.1	12.5	15.1	21.3	26.2	20.3	12.2	8.76	7.05	7.11
MAX	26.1	19.4	40.8	19.3	22.6	49.5	64.1	50.6	21.8	32.6	20.9	24.7
(WY)	1990	1990	1984	1991	1986	1983	1983	1989	1992	1984	1990	1987
MIN	2.31	2.07	5.29	5.85	5.92	10.5	3.84	8.38	3.54	2.65	2.13	2.12
(WY)	1985	1985	1992	1992	1992	1985	1985	1992	1987	1991	1991	1991

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1983 - 1992	
ANNUAL TOTAL	3275.9		3060.8			
ANNUAL MEAN	8.98		8.36		13.9	
HIGHEST ANNUAL MEAN					21.4	1984
LOWEST ANNUAL MEAN					6.63	1985
HIGHEST DAILY MEAN	48	Apr 25	81	Jun 6	248	Apr 5 1984
LOWEST DAILY MEAN	1.2	Nov 18	1.2	Nov 18	1.2	Nov 18 1991
ANNUAL SEVEN-DAY MINIMUM	1.3	Nov 14	1.3	Nov 14	1.3	Nov 14 1991
INSTANTANEOUS PEAK FLOW			103	Jun 6	333	Apr 5 1984
INSTANTANEOUS PEAK STAGE			2.57	Jun 6	3.51	Apr 5 1984
INSTANTANEOUS LOW FLOW			1.2	Nov 16	1.2	Nov 16 1991
ANNUAL RUNOFF (CFSM)	1.17		1.09		1.82	
ANNUAL RUNOFF (INCHES)	15.93		14.88		24.74	
10 PERCENT EXCEEDS	21		14		29	
50 PERCENT EXCEEDS	5.4		6.4		9.0	
90 PERCENT EXCEEDS	1.6		2.3		2.9	

01379780 GREEN POND BROOK BELOW PICATINNY LAKE, AT PICATINNY ARSENAL, NJ

LOCATION.--Lat 40°56'56", long 74°33'29", Morris County, Hydrologic Unit 02030103, on left bank 100 ft upstream from bridge on Whitmore Avenue at Picatinny Arsenal, and 200 ft downstream from dam on Picatinny Lake.

DRAINAGE AREA.--9.16 mi^2.

PERIOD OF RECORD.--October 1984 to current year.

REVISED RECORDS.--WDR NJ-90-1: 1987 (M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 694.91 ft above sea level (U.S. Army, Picatinny Arsenal, benchmark).

REMARKS.--No estimated daily discharges. Records fair. Occasional regulation at Picatinny Lake. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 5, 1984 reached an elevation of 699.0 ft above sea level, 200 ft upstream of bridge on Whitmore Avenue.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 27	1045	76	3.03	June 6	0700	*122	*3.25

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1.7	3.8	4.9	7.7	8.0	36	11	17	9.1	9.1	4.3
2	2.8	2.7	3.9	4.6	7.0	10	31	11	21	8.1	8.1	4.1
3	2.8	2.3	18	4.6	6.5	12	27	11	22	7.5	7.6	5.2
4	2.8	2.1	25	6.7	7.4	9.3	25	9.9	22	8.2	7.1	8.3
5	2.4	1.8	18	7.4	8.5	14	23	9.5	28	8.0	6.4	8.3
6	1.3	1.6	14	6.6	7.2	16	22	9.1	111	7.7	6.0	8.0
7	.98	1.5	11	6.0	7.0	14	19	8.4	92	7.2	5.6	7.5
8	.97	1.4	9.5	5.7	7.2	15	16	8.4	74	6.7	5.2	7.2
9	.75	1.0	8.8	6.0	6.8	15	14	9.4	63	9.3	7.1	6.6
10	.80	.86	11	6.2	6.3	11	13	9.9	52	9.0	7.2	6.4
11	.73	.77	8.7	5.8	6.1	17	14	9.7	42	8.1	6.9	6.9
12	.77	.80	7.6	5.5	5.9	25	13	9.3	35	7.4	6.8	6.5
13	.79	.77	7.4	5.6	5.7	29	12	8.8	29	7.8	6.3	6.1
14	.78	.86	7.3	9.3	5.6	26	11	8.8	26	8.4	6.5	5.6
15	.90	1.0	6.5	10	5.6	24	10	8.1	24	8.1	6.4	5.3
16	1.4	1.1	6.2	8.3	6.5	19	10	9.2	21	9.8	6.1	4.9
17	1.3	.77	5.6	6.6	6.6	12	12	9.9	18	9.1	6.5	4.5
18	1.1	.57	5.3	6.1	6.6	7.6	13	10	16	8.4	6.9	4.3
19	1.6	.65	5.1	5.7	6.9	12	13	9.8	15	7.9	6.9	4.4
20	2.0	.72	5.5	5.4	6.9	14	12	9.1	16	7.5	6.9	4.1
21	2.4	.77	6.1	5.1	6.9	14	12	8.4	15	6.9	6.6	3.9
22	6.2	.93	6.1	4.9	6.6	13	13	7.9	13	6.5	6.1	3.9
23	12	1.1	6.3	7.7	6.5	12	14	7.3	11	6.8	5.7	4.1
24	11	2.4	6.2	17	6.4	11	14	6.8	11	7.4	5.5	3.7
25	7.4	3.7	5.2	12	6.4	10	15	6.7	11	7.2	5.3	3.4
26	5.6	4.2	4.6	11	7.7	12	15	6.4	9.6	7.5	5.5	3.8
27	5.2	4.2	4.3	9.6	8.8	58	14	6.2	13	8.6	5.8	3.8
28	1.9	3.9	4.0	9.0	11	58	14	5.9	13	8.1	6.0	4.0
29	.42	3.9	4.8	8.8	11	50	13	5.3	12	7.3	5.5	4.0
30	.38	3.7	6.0	8.4	---	44	12	5.0	10	6.9	5.0	4.0
31	.25	---	5.5	8.2	---	41	---	8.7	---	7.0	4.6	---
TOTAL	82.52	53.77	247.3	228.7	205.3	632.9	482	264.9	862.6	243.5	197.2	157.1
MEAN	2.66	1.79	7.98	7.38	7.08	20.4	16.1	8.55	28.8	7.85	6.36	5.24
MAX	12	4.2	25	17	11	58	36	11	111	9.8	9.1	8.3
MIN	.25	.57	3.8	4.6	5.6	7.6	10	5.0	9.6	6.5	4.6	3.4
CFSM	.29	.20	.87	.81	.77	2.23	1.75	.93	3.14	.86	.69	.57
IN.	.34	.22	1.00	.93	.83	2.57	1.96	1.08	3.50	.99	.80	.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

MEAN	10.2	15.0	19.4	14.3	15.4	20.1	21.7	23.8	13.4	6.78	8.43	10.2
MAX	33.3	24.3	43.1	27.0	27.5	29.1	50.2	66.7	28.8	18.4	28.6	36.7
(WY)	1990	1990	1987	1991	1990	1991	1987	1989	1992	1990	1990	1987
MIN	.71	.28	5.28	6.98	7.08	10.6	2.48	8.55	2.23	2.02	.54	2.43
(WY)	1985	1985	1985	1985	1992	1985	1985	1992	1987	1988	1991	1991

01379780 GREEN POND BROOK BELOW PICATINNY LAKE, AT PICATINNY ARSENAL, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1985 - 1992	
ANNUAL TOTAL	4142.65		3657.79			
ANNUAL MEAN	11.3		9.99		14.9	
HIGHEST ANNUAL MEAN					22.1	1990
LOWEST ANNUAL MEAN					6.35	1985
HIGHEST DAILY MEAN	64	Apr 25	111	Jun 6	206	May 17 1990
LOWEST DAILY MEAN	.21	Aug 21	.25	Oct 31	.20	Nov 20 1984
ANNUAL SEVEN-DAY MINIMUM	.27	Aug 20	.79	Nov 16	.20	Nov 17 1984
INSTANTANEOUS PEAK FLOW			122	Jun 6	243	Sep 13 1987
INSTANTANEOUS PEAK STAGE			3.25	Jun 6	3.70	Sep 13 1987
ANNUAL RUNOFF (CFSM)	1.24		1.09		1.62	
ANNUAL RUNOFF (INCHES)	16.82		14.85		22.08	
10 PERCENT EXCEEDS	27		17		31	
50 PERCENT EXCEEDS	6.5		7.2		9.7	
90 PERCENT EXCEEDS	.67		1.8		2.1	

01379790 GREEN POND BROOK AT WHARTON, NJ

LOCATION.--Lat 40°55'04", long 74°35'02", Morris County, Hydrologic Unit 02030103, on left bank 600 ft upstream from bridge on northbound lane of State Route 15, 0.2 mi northwest of Wharton, and 1.7 mi upstream from mouth.

DRAINAGE AREA.--12.6 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 680.26 ft above sea level (U.S. Army, Picatinny Arsenal, bench mark).

REMARKS.--No estimated daily discharges. Records good. Some regulation from Lake Picatinny, Picatinny Arsenal sewage treatment plant, and flood gates located about 800 ft upstream of gage. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0715	*163	*3.66	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	2.2	7.2	9.6	14	14	49	19	45	14	20	5.6
2	5.0	3.7	7.6	9.0	13	15	44	18	34	13	13	5.6
3	4.9	4.0	45	8.8	12	17	39	18	31	12	11	13
4	4.7	3.7	45	14	12	16	36	17	29	13	11	17
5	4.4	3.5	30	15	13	17	34	17	54	12	9.3	12
6	4.2	3.2	23	13	12	20	32	16	154	12	8.2	11
7	3.5	3.0	19	11	12	25	29	16	117	11	7.7	11
8	2.9	2.9	16	10	12	27	26	17	88	10	7.4	10
9	2.4	2.7	16	11	12	22	23	23	74	17	13	9.0
10	2.3	2.5	20	12	11	21	22	19	61	13	10	9.1
11	2.2	5.2	16	10	11	38	25	18	51	12	10	13
12	2.0	3.5	14	9.8	10	33	22	17	44	11	10	9.4
13	1.9	2.8	14	9.7	9.6	38	20	16	38	11	8.6	8.5
14	1.8	2.5	14	23	9.8	36	19	15	34	13	9.2	7.7
15	3.8	2.5	12	20	11	33	18	14	30	12	8.7	7.2
16	5.6	2.6	11	16	17	28	18	21	27	15	8.6	6.9
17	8.4	2.1	11	14	14	22	22	18	24	13	10	6.4
18	7.3	2.1	10	13	13	15	23	17	21	12	12	6.1
19	4.7	2.0	9.3	11	14	19	23	16	28	11	10	6.5
20	4.4	1.9	9.3	10	13	22	21	15	25	11	9.5	5.9
21	4.5	3.3	10	10	13	22	20	14	22	9.8	8.6	5.6
22	5.9	17	10	9.8	12	21	23	14	19	9.3	8.1	5.6
23	13	18	10	20	12	21	26	13	17	11	7.5	6.0
24	14	10	10	35	12	19	25	12	18	11	7.1	4.9
25	11	9.1	9.3	22	13	19	28	13	17	9.9	6.8	4.4
26	8.1	8.6	8.3	18	22	31	24	12	15	11	9.3	7.0
27	7.6	8.1	7.8	17	18	96	23	12	26	14	8.7	6.8
28	6.9	7.6	7.4	16	17	75	22	11	20	11	8.0	6.6
29	3.2	7.3	11	15	18	67	21	11	17	10	7.7	5.8
30	2.6	7.0	14	15	---	57	20	9.9	16	9.7	6.7	5.2
31	2.3	---	11	15	---	55	---	40	---	14	6.1	---
TOTAL	160.6	154.6	458.2	442.7	382.4	961	777	508.9	1196	368.7	291.8	238.8
MEAN	5.18	5.15	14.8	14.3	13.2	31.0	25.9	16.4	39.9	11.9	9.41	7.96
MAX	14	18	45	35	22	96	49	40	154	17	20	17
MIN	1.8	1.9	7.2	8.8	9.6	14	18	9.9	15	9.3	6.1	4.4
CFSM	.41	.41	1.17	1.13	1.05	2.46	2.06	1.30	3.16	.94	.75	.63
IN.	.47	.46	1.35	1.31	1.13	2.84	2.29	1.50	3.53	1.09	.86	.71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

MEAN	14.1	21.2	31.1	23.0	27.5	38.8	48.6	37.4	22.8	16.7	12.7	14.3
MAX	46.7	34.3	71.2	38.2	41.9	89.2	112	87.0	39.9	61.4	36.4	54.0
(WY)	1990	1986	1984	1991	1984	1983	1983	1989	1992	1984	1990	1987
MIN	4.54	4.23	11.7	11.3	13.2	17.8	8.96	16.4	6.65	5.08	3.12	4.73
(WY)	1985	1985	1985	1985	1992	1985	1985	1992	1987	1991	1991	1983

01379790 GREEN POND BROOK AT WHARTON, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1983 - 1992	
ANNUAL TOTAL	6274.5		5940.7			
ANNUAL MEAN	17.2		16.2		25.6	
HIGHEST ANNUAL MEAN					40.6	1984
LOWEST ANNUAL MEAN					12.5	1985
HIGHEST DAILY MEAN	86	Apr 25	154	Jun 6	512	Apr 6 1984
LOWEST DAILY MEAN	1.6	Sep 3	1.8	Oct 14	1.6	Sep 3 1991
ANNUAL SEVEN-DAY MINIMUM	1.8	Aug 29	2.2	Oct 8	1.8	Aug 29 1991
INSTANTANEOUS PEAK FLOW			163	Jun 6	572	Apr 5 1984
INSTANTANEOUS PEAK STAGE			3.66	Jun 6	5.11	Apr 5 1984
INSTANTANEOUS LOW FLOW			1.8	Oct 13	1.5	Sep 3 1991
ANNUAL RUNOFF (CFSM)	1.36		1.29		2.04	
ANNUAL RUNOFF (INCHES)	18.52		17.54		27.65	
10 PERCENT EXCEEDS	40		29		52	
50 PERCENT EXCEEDS	11		12		17	
90 PERCENT EXCEEDS	2.5		4.5		5.7	

01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°54'10", long 74°24'36", Morris County, Hydrologic Unit 02030103, on right bank, under New Jersey Transit railroad bridge, just downstream of bridge on Morris Avenue in Boonton, 1.8 mi upstream from dam at Boonton Reservoir.

DRAINAGE AREA.--116 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for October 1937, published in WSP 1302.

REVISED RECORDS.--WRD-NJ 1974: 1938(M). WDR NJ-78-1: 1949(M), 1952(M), 1968(M), 1971(M), 1973(P), 1974(M), 1977(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 364.47 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Splitrock Reservoir on Beaver Brook, 14.5 mi upstream of station (see Passaic River basin, reservoirs in). Town of Boonton diverts water for municipal supply from Taylortown Reservoir on Stony Brook, capacity, 75,000,000 gal and by pumping from wells in vicinity of Boonton. The mean diversion during the water year from Taylortown Reservoir was 0.78 ft^3/s. Rockaway Valley trunk sewer bypasses the station (see station 01381000). Several measurements of water temperature were made during the year. Satellite telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with Jersey City, Bureau of Water.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 27	1200	1,220	4.18	June 6	1430	*2,310	*5.38
June 1	0130	1,010	3.88	Sep. 4	0715	1,660	4.74

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	45	81	110	140	135	373	160	856	114	546	41
2	59	38	81	101	120	127	328	160	466	96	206	40
3	66	38	402	102	124	126	293	160	320	88	122	179
4	64	38	618	183	116	128	264	150	251	117	118	1160
5	61	34	340	237	113	121	241	147	377	107	99	271
6	67	30	228	165	103	124	216	146	1960	103	82	133
7	61	28	191	132	102	176	200	134	1300	85	72	110
8	43	26	164	118	102	293	190	142	863	74	64	104
9	33	26	153	125	97	214	182	297	620	192	220	92
10	31	29	226	137	79	187	192	232	478	134	203	93
11	31	59	186	120	90	436	245	194	382	99	112	181
12	38	54	155	116	85	361	223	163	312	85	125	115
13	30	43	149	112	77	274	190	151	263	100	93	89
14	30	38	159	227	90	238	168	145	224	118	96	80
15	58	34	143	262	99	213	154	131	193	98	89	70
16	112	32	123	166	270	190	157	179	168	151	93	63
17	134	30	108	118	179	174	205	202	151	119	163	56
18	167	41	102	140	140	163	221	160	137	108	204	59
19	93	50	82	105	148	188	221	134	207	97	153	54
20	62	43	88	105	147	195	207	120	268	84	111	48
21	50	42	91	103	134	182	191	115	188	74	89	48
22	45	167	91	100	120	169	205	111	154	66	75	52
23	46	392	90	143	111	169	323	102	135	101	67	74
24	48	220	92	437	110	151	244	109	161	117	61	57
25	49	140	89	285	120	148	286	156	179	89	57	51
26	44	106	82	226	238	220	238	109	138	78	55	120
27	48	90	82	174	227	1010	214	112	186	134	74	143
28	49	86	84	169	182	786	187	101	188	100	71	162
29	47	84	130	152	166	533	172	89	144	77	66	132
30	44	80	182	144	---	441	162	83	126	72	54	110
31	45	---	144	142	---	422	---	405	---	136	46	---
TOTAL	1813	2163	4936	4956	3829	8294	6692	4799	11395	3213	3686	3987
MEAN	58.5	72.1	159	160	132	268	223	155	380	104	119	133
MAX	167	392	618	437	270	1010	373	405	1960	192	546	1160
MIN	30	26	81	100	77	121	154	83	126	66	46	40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1992, BY WATER YEAR (WY)

MEAN	125	222	272	257	275	388	390	281	186	131	122	124
MAX	523	694	706	855	590	798	979	836	847	553	447	484
(WY)	1956	1973	1974	1979	1973	1977	1983	1989	1972	1975	1955	1971
MIN	23.7	63.7	67.2	74.8	107	152	87.0	90.5	35.3	18.1	16.6	16.8
(WY)	1965	1962	1940	1981	1940	1985	1985	1965	1965	1966	1957	1964

01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1938 - 1992	
ANNUAL TOTAL	61472		59763			
ANNUAL MEAN	168		163		231	
HIGHEST ANNUAL MEAN					396	1952
LOWEST ANNUAL MEAN					88.3	1965
HIGHEST DAILY MEAN	1080	Mar 4	1960	Jun 6	4220	Jan 25 1979
LOWEST DAILY MEAN	15	Sep 3	26	Nov 8	10	Aug 10 1966
ANNUAL SEVEN-DAY MINIMUM	19	Aug 29	30	Nov 4	12	Aug 6 1966
INSTANTANEOUS PEAK FLOW			2310	Jun 6	5590	Apr 5 1984
INSTANTANEOUS PEAK STAGE			5.38	Jun 6	7.23	Apr 5 1984
INSTANTANEOUS LOW FLOW			6.8	Feb 3	---	
10 PERCENT EXCEEDS	364		270		496	
50 PERCENT EXCEEDS	102		124		155	
90 PERCENT EXCEEDS	30		48		44	

01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-79, 1991 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
07...	1100	27	339	7.8	4.5	11.0	86	E1.8	33	33
JAN 1992										
30...	1100	138	218	7.4	0.5	14.6	104	E1.5	22	10
APR										
13...	1100	189	211	7.4	8.0	12.6	107	<1.0	23	70
JUN										
11...	1100	386	168	7.4	20.0	10.8	121	<1.0	920	310
AUG										
05...	1100	100	242	7.9	22.0	9.0	105	<1.0	110	20

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
07...	120	28	11	20	1.7	82	19	43	0.1
JAN 1992									
30...	60	15	5.5	16	1.0	35	18	35	0.2
APR									
13...	63	16	5.7	16	1.1	35	16	30	0.2
JUN									
11...	51	13	4.4	12	0.90	33	12	23	<0.1
AUG									
05...	80	20	7.4	17	1.1	57	16	34	0.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
07...	9.4	183	0.004	0.005	0.29	0.38	0.05	<0.03	0.30
JAN 1992									
30...	9.3	123	0.004	0.003	0.39	0.39	<0.03	<0.03	0.24
APR									
13...	7.6	115	0.011	0.012	0.34	0.33	<0.03	0.04	0.34
JUN									
11...	8.7	95	0.010	0.006	0.30	0.27	0.04	0.14	0.49
AUG									
05...	9.0	140	0.009	0.008	0.34	0.34	<0.03	<0.03	0.52

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
07...	0.25	0.59	0.63	0.03	<0.02	2.9	0.2	--	--
JAN 1992									
30...	0.19	0.63	0.58	0.02	<0.02	3.1	0.2	8	3.0
APR									
13...	0.24	0.68	0.57	<0.02	<0.02	3.3	0.2	20	10
JUN									
11...	0.45	0.79	0.72	0.06	0.03	5.1	0.3	15	16
AUG									
05...	0.19	0.86	0.53	0.03	--	3.6	0.2	3	0.81

01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
NOV 1991 07...	1100	12	<1	<10	20	<1	<1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
NOV 1991 07...	300	1	60	<0.10	2	<1	20

01381000 ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°53'49", long 74°23'42", revised, Morris County, Hydrologic Unit 02030103, on right bank 2,000 ft downstream from Boonton Reservoir Dam at Boonton, and 0.4 mi upstream at bridge on Greenback Road.

DRAINAGE AREA.--119 mi^2.

PERIOD OF RECORD.--March to December 1903; January, February 1904 (gage height only); January 1906 to September 1950 (monthly discharge only, published in WSP 1302) October 1950 to current year (figures of daily discharge for October 1950 to September 1954 published in Special Report 16 of New Jersey Department of Environmental Protection). Published as "near Boonton" 1903-4, and as "at Boonton" 1906-37.

REVISED RECORDS.--WSP 1902: 1951-54. WDR NJ-79-1: 1949(M), 1952(M), 1968(M), 1970-74(M), 1977(M).

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1936. Datum of gage is 195.68 ft above sea level (levels from New Jersey Geological Survey bench mark). Mar. 15, 1903 to Feb. 2, 1904, nonrecording gage at site 1.9 mi downstream at different datum. Jan. 1, 1906 to Mar. 3, 1918, nonrecording gage on Boonton Reservoir Dam 2,000 ft upstream at datum 305.25 ft sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--No estimated daily discharges. Records good. Records represent flow in river only. Sewage effluent enters river about 600 ft below station (records given herein). Flow regulated by Boonton Reservoir (see Passaic River basin, reservoirs in) 2,000 ft upstream of station, and by Splitrock Reservoir (see Passaic River basin, reservoirs in) 16.5 mi above station. Water diverted from Boonton Reservoir for municipal supply of Jersey City (see Passaic River basin, diversions). Several measurements of water temperature were made during the year. Satellite telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with and record of sewage effluent furnished by Jersey City, Bureau of Water.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	10	12	75	89	350	96	822	46	331	12
2	11	11	11	12	61	53	301	104	517	28	231	12
3	11	11	16	12	52	52	260	87	300	20	91	32
4	11	11	11	15	57	54	225	81	206	32	62	999
5	11	11	12	13	50	51	199	81	298	45	32	497
6	11	11	12	13	36	49	115	78	2000	34	15	128
7	10	11	12	12	34	73	11	68	1660	22	13	67
8	10	11	12	13	33	201	11	68	962	18	12	48
9	10	11	12	13	33	179	11	185	634	61	30	30
10	10	11	12	13	17	136	11	191	452	79	128	29
11	11	11	11	12	17	295	13	151	340	43	73	60
12	11	11	11	12	15	290	97	113	264	24	50	62
13	10	11	11	12	13	259	127	94	211	27	32	33
14	10	11	11	14	13	222	114	83	171	31	25	19
15	11	11	10	12	19	167	94	69	133	29	21	14
16	11	11	9.8	12	143	139	91	88	108	53	19	12
17	11	11	10	12	150	124	130	133	90	55	49	12
18	10	11	10	12	98	82	158	111	69	48	120	12
19	11	11	10	12	86	107	166	78	91	35	111	12
20	10	11	9.7	12	88	131	157	57	198	22	63	12
21	10	11	10	12	77	127	138	46	152	12	34	11
22	10	13	12	12	61	118	145	38	97	12	18	12
23	10	11	12	14	51	117	253	34	73	13	13	11
24	10	11	12	13	46	103	210	33	101	12	13	11
25	10	11	12	97	53	88	222	76	124	12	12	11
26	10	11	12	179	130	117	200	57	72	13	12	12
27	10	11	12	128	178	567	164	45	79	13	12	12
28	10	11	12	112	132	905	136	35	127	14	12	12
29	10	11	13	95	112	613	115	25	96	15	12	12
30	10	10	13	80	---	454	101	18	68	12	13	12
31	10	---	12	75	---	395	---	168	---	18	12	---
TOTAL	322	331	355.5	1067	1930	6357	4325	2591	10515	898	1671	2218
MEAN	10.4	11.0	11.5	34.4	66.6	205	144	83.6	350	29.0	53.9	73.9
MAX	11	13	16	179	178	905	350	191	2000	79	331	999
MIN	10	10	9.7	12	13	49	11	18	68	12	12	11
(†)	11.4	11.3	13.1	13.0	12.7	13.6	13.2	12.4	15.0	12.3	12.3	12.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1992, BY WATER YEAR (WY)

MEAN	47.4	95.9	162	150	170	265	287	195	104	53.1	45.6	49.8
MAX	408	483	582	692	499	654	978	873	671	445	269	346
(WY)	1956	1973	1984	1979	1973	1983	1983	1989	1972	1984	1990	1960
MIN	.23	.43	.35	.39	1.49	13.9	11.4	18.6	.40	.25	.29	.28
(WY)	1964	1966	1966	1966	1966	1981	1985	1955	1957	1966	1966	1957

01381000 ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1950 - 1992	
ANNUAL TOTAL	38776.2		32580.5			
ANNUAL MEAN	106		89.0		135	
(†)	12.3		12.8		---	
HIGHEST ANNUAL MEAN					296	1952
LOWEST ANNUAL MEAN					7.19	1965
HIGHEST DAILY MEAN	993	Apr 22	2000	Jun 6	3850	Apr 6 1984
LOWEST DAILY MEAN	9.7	Dec 20	9.7	Dec 20	.00	Jan 19 1959
ANNUAL SEVEN-DAY MINIMUM	9.9	Dec 15	9.9	Dec 15	.00	Dec 18 1963
INSTANTANEOUS PEAK FLOW			2440	Jun 6	7560ab	Oct 10 1903
INSTANTANEOUS PEAK STAGE			6.20	Jun 6		
INSTANTANEOUS LOW FLOW			8.2	Dec 21	.00a	Many days
10 PERCENT EXCEEDS	278		198		360	
50 PERCENT EXCEEDS	12		29		37	
90 PERCENT EXCEEDS	10		11		.70	

a Since 1903; see period of record section.
b Maximum daily.
† Sewage effluent, in cubic feet per second, from plant at Rockaway Valley Regional Sewage Authority.

01381200 ROCKAWAY RIVER AT PINE BROOK, NJ

LOCATION.--Lat 40°51'29", long 74°20'53", Morris County, Hydrologic Unit 02030103, at bridge on U.S. Route 46 at intersection with New Road in Pine Brook, and 1.1 mi upstream of mouth.

DRAINAGE AREA.--136 mi^2.

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

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
24...	1130	28	491	7.7	13.5	8.6	82	E1.5	350	49
JAN 1992										
29...	1100	100	284	7.5	0.5	15.2	106	<1.2	20	30
APR										
06...	1100	140	255	7.6	4.0	15.6	119	E2.0	2	<10
JUN										
15...	1100	168	231	7.6	22.0	9.0	104	<1.1	230	80
JUL										
30...	1130	28	435	7.8	21.5	8.6	99	E2.2	920	160

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
24...	--	--	--	--	--	88	33	63	0.3
JAN 1992									
29...	77	19	7.1	20	1.5	49	22	41	0.1
APR									
06...	71	18	6.3	20	1.3	40	20	43	0.2
JUN									
15...	66	17	5.7	17	1.5	43	18	32	0.2
JUL									
30...	130	32	11	36	4.1	75	28	57	0.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
24...	12	--	0.021	0.021	6.79	6.88	0.08	0.11	0.50
JAN 1992									
29...	8.9	156	0.007	0.008	1.58	1.54	<0.03	<0.03	0.61
APR									
06...	7.2	144	0.012	0.012	0.97	0.96	0.04	<0.03	0.53
JUN									
15...	7.4	129	E0.014	E0.013	1.02	1.04	0.07	0.06	0.59
JUL									
30...	11	250	0.026	0.024	5.80	5.78	0.03	0.03	0.45

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
24...	0.35	7.3	7.2	0.92	0.93	4.2	0.5	2	0.15
JAN 1992									
29...	0.33	2.2	1.9	0.17	0.14	3.6	0.2	4	1.1
APR									
06...	0.33	1.5	1.3	0.12	0.08	3.2	0.6	9	3.4
JUN									
15...	0.43	1.6	1.5	0.17	0.12	4.4	0.6	35	16
JUL									
30...	<0.03	6.3	--	0.13	--	20	0.5	9	0.68

01381200 ROCKAWAY RIVER AT PINE BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)
OCT 1991 24...	1130	18	--	--	--	--	--	--	--	1
NOV 15...	1100	--	<1	1	4.2	120	460	0.1	3.9	--

DATE	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991 24...	--	<10	140	<1	--	2	--	--	--	370
NOV 15...	1	--	--	--	<1	--	3	<5	50	--

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991 24...	--	3	--	90	--	<0.10	--	18	--	<1
NOV 15...	4300	--	50	--	170	--	0.01	--	<10	--

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991 24...	--	40	--	--	--	--	--	--	--	--
NOV 15...	<1	--	60	2	<1.0	<0.1	7.0	0.7	0.8	1.2

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991 24...	--	--	--	--	--	--	--	--	--	--
NOV 15...	0.3	<1.0	<0.1	<0.1	<1.0	<0.1	<1.0	<1.0	<1.00	<10

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ

LOCATION.--Lat 40°48'26", long 74°27'22", Morris County, Hydrologic Unit 02030103, on left bank at Morristown sewage-disposal plant, 0.8 mi northeast of Morristown, and 9.0 mi upstream from mouth.

DRAINAGE AREA.--29.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1921 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23(M), 1924, 1925-27(M) 1928-29, 1930-32(M), 1933-34. WRD-NJ 1974: 1965. WDR NJ-84-1: 1971(M). WDR NJ-88-1: Longitude.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since July 1, 1936. Datum of gage is 260.01 ft above sea level (levels from New Jersey Geological Survey bench mark). Prior to July 16, 1930, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow occasionally regulated by operation of gates in Pocahontas Dam, 2.5 mi above station. Diurnal fluctuations from unknown source at low flow. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 27	0915	460	3.79	July 31	1745	633	4.28
June 6	0100	*1,510	*6.32				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	21	26	27	29	30	51	39	191	36	167	21
2	22	21	32	27	25	30	48	39	56	33	39	20
3	22	23	223	27	26	30	45	37	43	42	34	51
4	21	22	182	82	26	30	43	36	38	68	40	92
5	22	20	48	67	26	29	42	38	448	39	30	28
6	35	20	37	38	25	29	41	38	914	39	27	24
7	24	20	34	34	25	63	40	36	197	34	26	25
8	21	20	31	29	26	74	39	53	180	32	26	27
9	21	20	34	34	25	40	40	85	163	126	74	26
10	21	20	66	34	23	47	39	49	98	42	36	31
11	25	39	38	29	24	140	65	40	81	33	33	55
12	25	30	32	28	23	55	45	37	74	32	33	29
13	21	23	38	28	23	42	39	36	66	34	26	24
14	20	21	41	86	26	39	38	37	61	46	32	23
15	46	20	32	52	49	36	37	35	58	35	29	21
16	46	20	28	32	110	35	45	51	54	39	34	21
17	60	19	27	28	43	35	54	41	51	32	44	21
18	52	19	27	28	36	35	49	38	49	48	52	20
19	29	19	24	26	40	45	46	35	84	32	33	20
20	24	19	24	25	36	43	41	33	75	30	28	19
21	22	27	26	25	32	40	38	32	50	28	25	19
22	22	110	26	25	30	37	50	31	45	27	24	26
23	22	150	26	58	30	40	129	30	44	71	23	34
24	22	43	26	106	31	37	56	39	72	49	23	21
25	21	30	25	40	39	41	80	43	66	33	24	20
26	21	26	24	33	96	106	51	34	44	33	29	58
27	21	25	24	29	50	364	47	35	43	40	31	47
28	21	24	24	29	37	99	43	31	39	30	27	41
29	21	23	48	29	35	59	41	29	36	28	24	25
30	21	23	50	29	---	53	39	30	37	26	21	22
31	20	---	33	29	---	62	---	214	---	114	21	---
TOTAL	813	917	1356	1193	1046	1845	1461	1381	3457	1331	1115	911
MEAN	26.2	30.6	43.7	38.5	36.1	59.5	48.7	44.5	115	42.9	36.0	30.4
MAX	60	150	223	106	110	364	129	214	914	126	167	92
MIN	20	19	24	25	23	29	37	29	36	26	21	19
CFSM	.89	1.04	1.49	1.31	1.23	2.02	1.66	1.52	3.92	1.46	1.22	1.03
IN.	1.03	1.16	1.72	1.51	1.32	2.33	1.85	1.75	4.37	1.68	1.41	1.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	31.5	44.8	53.4	57.1	64.1	85.1	86.2	66.7	46.9	38.2	35.8	34.6
MAX	93.8	132	158	211	147	215	231	237	214	186	158	123
(WY)	1990	1933	1984	1979	1973	1936	1983	1989	1972	1975	1942	1971
MIN	8.72	13.3	14.2	16.9	23.5	28.1	30.2	24.4	14.6	10.3	8.02	7.25
(WY)	1931	1937	1940	1922	1940	1981	1985	1941	1965	1965	1932	1932

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	19500		16826			
ANNUAL MEAN	53.4		46.0		53.6	
HIGHEST ANNUAL MEAN					98.5	1984
LOWEST ANNUAL MEAN					23.3	1965
HIGHEST DAILY MEAN	484	Sep 25	914	Jun 6	1510	Aug 28 1971
LOWEST DAILY MEAN	15	Sep 18	19	Nov 17	4.2	Sep 10 1932
ANNUAL SEVEN-DAY MINIMUM	16	Sep 12	20	Nov 14	4.7	Sep 9 1932
INSTANTANEOUS PEAK FLOW			1510	Jun 6	2800	Aug 28 1971
INSTANTANEOUS PEAK STAGE			6.32	Jun 6	8.60	Aug 28 1971
INSTANTANEOUS LOW FLOW			18	Nov 17	2.8	Aug 27 1932
ANNUAL RUNOFF (CFSM)	1.82		1.56		1.82	
ANNUAL RUNOFF (INCHES)	24.67		21.29		24.78	
10 PERCENT EXCEEDS	90		69		104	
50 PERCENT EXCEEDS	40		34		36	
90 PERCENT EXCEEDS	20		21		15	

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1926, 1962 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
22...	1030	21	372	--	10.0	11.1	99	E8.7	330	700
JAN 1992										
30...	1200	25	440	8.5	4.5	18.4	145	4.8	--	--
APR										
08...	1100	39	341	8.9	12.0	15.5	146	2.3	20	20
MAY										
21...	1345	33	355	8.8	20.5	13.7	152	<1.0	790	40
AUG										
04...	1100	38	321	7.8	22.0	8.6	100	E1.3	5400	50

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
22...	120	30	10	28	3.0	74	22	52	0.2
JAN 1992									
30...	110	29	9.9	34	2.5	64	25	76	0.1
APR									
08...	97	25	8.3	26	2.1	53	21	61	0.1
MAY									
21...	100	26	8.9	25	2.2	65	22	51	0.1
AUG									
04...	97	25	8.5	22	2.4	60	24	48	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
22...	18	216	0.042	0.045	1.86	1.78	0.26	0.34	0.55
JAN 1992									
30...	16	238	0.016	0.016	1.71	1.70	<0.03	<0.03	0.29
APR									
08...	14	196	0.023	0.023	1.51	1.48	<0.03	<0.03	0.55
MAY									
21...	14	196	0.025	0.029	1.67	1.67	<0.03	<0.03	0.52
AUG									
04...	16	190	0.032	0.031	2.05	1.90	<0.03	<0.03	0.37

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
22...	0.43	2.4	2.2	0.32	0.28	3.3	0.4	6	0.34
JAN 1992									
30...	0.18	2.0	1.9	0.22	0.08	2.5	0.3	3	0.20
APR									
08...	0.21	2.1	1.7	0.06	<0.02	2.5	0.7	8	0.84
MAY									
21...	0.41	2.2	2.1	0.14	0.08	3.4	0.5	9	0.80
AUG									
04...	0.11	2.4	2.0	0.11	0.05	3.4	0.6	15	1.5

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 22...	1030	12	<1	<10	120	<1	<1	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 22...	430	2	70	0.10	2	<1	<10

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ

LOCATION.--Lat 40°50'42", long 74°20'51", Morris County, Hydrologic Unit 02030103, at bridge on New Road, 0.3 mi southwest of overpass of Interstate 280, 0.4 mi upstream of Rockaway River, and 1.4 mi southwest of Pine Brook.

DRAINAGE AREA.--68.5 mi^2.

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

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
04...	1115	39	558	7.6	10.0	8.1	72	E2.0	50	<20
JAN 1992										
29...	1230	56	600	7.6	3.0	13.0	97	2.3	17	<10
APR										
02...	1130	90	421	7.4	7.0	11.2	94	3.8	94	40
MAY										
21...	1100	46	480	7.8	17.0	8.1	84	<1.0	40	330
AUG										
03...	1100	61	305	7.4	22.0	7.0	81	3.0	7000	5000

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
04...	170	44	15	42	4.1	107	42	68	0.2
JAN 1992									
29...	150	39	13	52	2.5	95	36	98	0.1
APR									
02...	100	27	8.4	36	2.0	57	26	71	0.2
MAY									
21...	130	34	12	36	2.9	87	29	66	0.2
AUG									
03...	95	25	8.0	21	2.0	62	21	38	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
04...	--	295	E0.155	E0.160	3.25	3.29	0.97	0.97	1.8
JAN 1992									
29...	15	322	0.054	0.052	1.63	1.60	1.62	1.50	2.1
APR									
02...	10	222	0.036	0.033	1.44	1.45	0.36	0.33	1.1
MAY									
21...	13	256	0.037	0.035	2.46	2.40	0.13	0.13	0.92
AUG									
03...	12	171	0.020	0.018	1.48	1.50	0.05	0.06	1.2

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
04...	1.6	5.1	4.9	0.62	0.58	5.1	0.6	5	0.53
JAN 1992									
29...	1.9	3.8	3.5	0.28	0.19	--	--	13	2.0
APR									
02...	0.89	2.5	2.3	0.13	0.08	5.3	0.5	19	4.6
MAY									
21...	0.60	3.4	3.0	0.35	0.27	4.7	--	34	4.2
AUG									
03...	0.61	2.7	2.1	0.32	0.15	7.9	1.8	90	15

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991										
04...	1115	<1	1	5.3	270	560	<0.1	3.4	--	3
04...	1115	--	--	--	--	--	--	--	2	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
04...	--	--	--	<1	--	5	<5	--	7	--
04...	<10	80	<1	--	5	--	--	17	--	590

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
04...	5900	--	30	--	78	--	0.12	--	<10	--
04...	--	3	--	100	--	<0.10	--	4	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
04...	<1	--	40	<1	<1.0	<0.1	2.0	0.3	0.2	0.1
04...	--	40	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
04...	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
04...	--	--	--	--	--	--	--	--	--	--

01381900 PASSAIC RIVER AT PINE BROOK, NJ

LOCATION.--Lat 40°51'45", long 74°19'18", Morris County, Hydrologic Unit 02030103, on downstream left wingwall of bridge on U.S. Route 46, 0.5 mi east of Pine Brook, and 1.3 mi downstream from Rockaway River.

DRAINAGE AREA.--349 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1963-69, 1973, and annual maximum, water years 1966-75, 1978-79. October 1979 to current year. Feb. 19 to Aug. 24, 1939 in files of U.S. Army Corps of Engineers, New York District.

REVISED RECORDS.--WDR NJ-77-1: 1967(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 149.26 ft above sea level. December 1965 to September 1979, crest-stage gage at same site at datum 10.00 ft higher. Feb. 19 to Aug. 24, 1939, water-stage recorder at present State Route 506 bridge, 1,600 ft upstream from gage, operated by U.S. Army Corps of Engineers, New York District at datum 13.05 ft higher.

REMARKS.--No estimated daily discharges. Records fair except those above 1,000 ft^3/s, which are poor. Flow regulated by Boonton and Splitrock Reservoirs (see Passaic River basin, reservoirs in) and many small lakes. Water diverted from Boonton Reservoir for municipal supply of Jersey City (see Passaic River basin, diversions). Several measurements of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1810, according to State Geologist's report for 1904, 23.2 ft, Oct. 10, 1903, present datum, from King Survey of highwater marks at present State Route 506 bridge, 1,600 ft upstream from gage. Floods of Mar. 13, 1936 and Sept. 24, 1938 reached stages of 20.8 ft and 19.4 ft respectively, at present State Route 506 bridge and present datum. Flood of July 23, 1945 reached a stage of 22.3 ft at present site and datum according to U.S. Army Corps of Engineers; minimum observed, 41.1 ft^3/s, Sept. 22, 1964.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 29	1030	2,080	17.97	June 7	1230	*4,270	*19.98

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	571	176	269	333	276	438	1580	357	913	183	636	118
2	379	172	267	289	257	364	1370	345	1190	153	736	116
3	289	167	615	281	227	350	1160	325	1200	129	542	188
4	247	164	1010	380	226	341	989	297	1020	232	398	660
5	215	162	1160	642	224	328	795	282	917	235	282	848
6	304	161	1180	617	201	311	627	282	2720	198	207	699
7	316	160	1070	489	187	345	441	267	4190	167	173	379
8	232	159	895	394	185	575	346	255	4060	135	155	240
9	198	158	726	342	187	618	310	448	3670	382	276	194
10	182	155	661	342	162	548	304	523	3240	557	360	173
11	184	208	603	312	150	706	348	486	2820	466	314	328
12	230	282	523	279	153	882	389	414	2420	329	274	303
13	207	236	475	254	138	860	419	351	2040	258	222	218
14	185	211	495	330	144	780	399	312	1660	277	216	167
15	187	196	481	512	165	641	364	276	1300	342	213	141
16	321	187	435	453	509	505	339	279	1010	449	199	131
17	341	181	356	337	669	452	432	365	690	417	236	127
18	505	176	321	262	586	413	495	364	410	372	342	124
19	428	174	284	240	500	398	519	310	317	311	372	120
20	337	175	256	213	468	462	511	263	460	253	296	116
21	282	178	254	187	424	486	480	231	419	218	224	111
22	250	392	246	171	368	475	460	208	317	188	179	113
23	233	771	242	196	357	474	588	188	250	221	159	200
24	218	854	244	526	353	469	649	181	248	356	148	170
25	206	820	236	573	366	448	678	300	391	265	142	139
26	196	687	223	543	559	552	656	267	311	211	139	243
27	191	514	215	447	690	1110	559	241	237	238	182	315
28	188	364	209	357	647	1720	491	216	246	210	194	295
29	188	298	244	338	537	2060	434	188	230	185	196	225
30	184	284	403	314	---	1950	388	168	204	171	150	183
31	181	---	406	288	---	1770	---	356	---	204	126	---
TOTAL	8175	8822	15004	11241	9915	21831	17520	9345	39100	8312	8288	7384
MEAN	264	294	484	363	342	704	584	301	1303	268	267	246
MAX	571	854	1180	642	690	2060	1580	523	4190	557	736	848
MIN	181	155	209	171	138	311	304	168	204	129	126	111

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1992, BY WATER YEAR (WY)

MEAN	387	546	727	562	749	884	1193	888	600	378	290	281
MAX	1205	922	2286	1207	1221	2067	2842	2537	1482	1485	1024	849
(WY)	1990	1986	1984	1991	1984	1983	1983	1989	1984	1984	1990	1989
MIN	134	161	107	105	211	272	161	301	188	168	117	91.0
(WY)	1981	1981	1981	1981	1980	1981	1985	1992	1981	1980	1981	1980

01381900 PASSAIC RIVER AT PINE BROOK, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1980 - 1992	
ANNUAL TOTAL	193597		164937			
ANNUAL MEAN	530		451		623	
HIGHEST ANNUAL MEAN					1125	1984
LOWEST ANNUAL MEAN					276	1981
HIGHEST DAILY MEAN	2430	Mar 6	4190	Jun 7	7910	Apr 7 1984
LOWEST DAILY MEAN	94	Sep 15	111	Sep 21	72	Sep 29 1980
ANNUAL SEVEN-DAY MINIMUM	96	Sep 12	120	Sep 16	78	Oct 12 1980
INSTANTANEOUS PEAK FLOW			4270	Jun 7	8000a	Apr 7 1984
INSTANTANEOUS PEAK STAGE			19.98	Jun 7	22.90	Apr 7 1984
INSTANTANEOUS LOW FLOW			110	Sep 21	70	Sep 29 1980
10 PERCENT EXCEEDS	1180		784		1490	
50 PERCENT EXCEEDS	337		311		357	
90 PERCENT EXCEEDS	133		167		125	

a Affected by backwater.

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ

LOCATION.--Lat 40°53'40", long 74°16'23", Passaic County, Hydrologic Unit 02030103, at bridge on Two Bridges Road in Two Bridges, 50 ft upstream from Pompton River.

DRAINAGE AREA.--361 mi^2.

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 TEMPERATURES: October 1962 to September 1974.
DISSOLVED OXYGEN: June 1969 to September 1974.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
29...	1145	200	593	7.7	14.5	5.3	52	E1.9	49	<2
NOV										
19...	1400	190	666	7.7	5.5	10.7	85	2.7	--	--
DEC										
17...	1400	450	386	7.4	1.0	11.9	84	1.2	--	--
JAN 1992										
15...	1215	550	472	7.7	5.5	10.5	85	E2.1	540	280
FEB										
19...	1400	600	470	7.3	1.5	13.0	94	3.6	--	--
MAR										
23...	1100	540	682	7.6	1.0	15.1	108	1.5	110	<10
APR										
20...	1200	600	370	7.6	8.5	11.2	96	1.5	--	--
MAY										
12...	1430	510	402	7.6	15.5	8.8	89	4.8	--	--
27...	1200	270	471	7.5	15.5	8.0	81	E1.7	1600	30
JUN										
10...	1300	4090	157	7.2	20.5	3.0	34	2.7	--	--
25...	1000	320	435	7.5	20.0	8.7	97	1.4	--	--
JUL										
21...	1200	280	425	8.0	25.0	7.0	86	E1.8	110	110
AUG										
27...	1430	150	613	8.2	25.0	11.4	140	5.1	--	--
SEP										
08...	1400	360	462	7.5	21.5	6.0	68	2.7	--	--
18...	1400	130	600	8.4	22.0	13.5	156	6.0	--	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT 1991										
29...	150	39	13	52	5.6	88	50	89	0.20	16
NOV										
19...	160	39	14	66	6.1	95	54	100	0.20	15
DEC										
17...	100	25	9.0	32	<0.10	61	34	53	0.20	15
JAN 1992										
15...	110	29	9.7	40	3.5	68	36	69	0.20	12
FEB										
19...	100	26	8.9	48	2.6	51	30	87	<0.10	10
MAR										
23...	110	30	9.7	79	2.7	59	36	140	<0.10	8.2
APR										
20...	100	26	8.5	31	2.4	57	27	56	<0.10	9.6
MAY										
12...	100	26	8.8	35	2.8	64	28	63	<0.10	8.7
27...	110	28	10	44	3.2	71	31	69	0.20	9.9
JUN										
10...	45	12	3.7	12	2.2	30	11	20	<0.10	6.7
25...	110	29	10	39	3.5	68	35	63	0.30	15
JUL										
21...	110	28	9.7	39	3.8	72	31	66	0.10	14
AUG										
27...	150	38	13	59	6.1	94	47	90	<0.10	14
SEP										
08...	110	29	9.6	46	3.3	70	37	68	0.20	13
18...	150	37	13	56	5.0	92	48	85	0.20	13

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
OCT 1991										
29...	345	0.098	0.097	5.56	5.60	0.310	0.330	1.3	1.2	6.8
NOV										
19...	382	0.050	0.050	6.60	6.20	0.410	0.400	1.1	1.0	7.7
DEC										
17...	--	0.030	0.030	2.40	2.40	0.290	0.270	0.80	0.60	3.2
JAN 1992										
15...	257	0.030	0.030	3.20	3.30	0.360	0.370	1.0	0.70	4.2
FEB										
19...	254	0.020	0.020	2.00	2.10	0.240	0.240	0.80	0.50	2.8
MAR										
23...	354	0.030	0.030	2.70	2.60	0.130	0.140	0.70	0.50	3.4
APR										
20...	207	0.040	0.040	2.50	2.50	0.190	0.190	0.80	0.50	3.3
MAY										
12...	221	0.030	0.030	2.20	2.20	0.090	0.100	0.50	0.40	2.7
27...	254	0.050	0.050	3.30	3.40	0.190	0.180	1.1	0.80	4.4
JUN										
10...	88	0.020	0.020	0.320	0.340	0.060	0.050	0.60	0.50	0.92
25...	254	0.060	0.050	4.10	3.80	0.200	0.190	0.60	0.60	4.7
JUL										
21...	253	0.050	0.041	3.70	3.70	0.050	0.041	0.60	0.40	4.3
AUG										
27...	352	0.030	0.020	6.00	5.90	0.010	<0.010	0.90	0.50	6.9
SEP										
08...	263	0.020	0.030	3.10	3.10	0.140	0.140	0.90	0.60	4.0
18...	339	0.030	0.020	5.70	5.60	0.030	0.020	1.1	0.60	6.8

DATE	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
29...	6.8	1.00	0.920	0.920	0.860	7.6	0.7	12	6.5
NOV									
19...	7.2	1.20	1.10	0.980	1.00	5.1	0.5	--	--
DEC									
17...	3.0	0.470	0.360	0.400	0.360	5.9	0.5	--	--
JAN 1992									
15...	4.0	0.690	0.500	0.570	0.490	4.7	0.7	20	30
FEB									
19...	2.6	0.360	0.370	0.270	0.270	5.1	--	--	--
MAR									
23...	3.1	0.420	0.330	0.350	0.300	4.2	0.4	8	12
APR									
20...	3.0	0.410	0.260	0.290	0.230	4.3	0.6	--	--
MAY									
12...	2.6	0.320	0.230	0.310	0.230	5.2	1.1	--	--
27...	4.2	0.650	0.410	0.480	0.380	5.2	1.3	--	--
JUN									
10...	0.84	0.160	0.120	0.140	0.140	9.0	0.5	--	--
25...	4.4	0.410	0.300	0.400	0.300	4.7	0.9	--	--
JUL									
21...	4.1	0.530	0.470	0.470	0.430	3.1	1.1	25	19
AUG									
27...	6.4	0.970	0.910	0.900	0.820	4.6	2.1	--	--
SEP									
08...	3.7	0.530	0.340	0.390	0.330	5.5	1.2	--	--
18...	6.2	0.860	0.630	0.650	0.640	4.6	2.7	--	--

01382000 PASSAIC RIVER AT TO BRIDGES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 29...	1145	24	2	<10	180	<1	2	6

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 29...	850	10	90	<0.10	5	<1	20

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ

LOCATION.--Lat 41°01'05", long 74°24'07", Morris County, Hydrologic Unit 02030103, on left bank 15 ft downstream of culvert at 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1898 to March 1990, September 1992. Monthly discharge only for some periods, published in WSP 1302. Records for January 1892 to December 1897, published in WSP 541, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 549.17 ft above sea level. Prior to May 22, 1970, at site just upstream of Macopin Intake Dam, at datum 36.35 ft higher. May 22, 1970 to March 5, 1990, at site just upstream of Macopin Intake Dam, at datum 20.83 ft higher.

REMARKS.--Records good. Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg Reservoirs, and Echo Lake (see Passaic River basin, reservoirs in). Water diverted at Charlotteburg Reservoir for municipal supply of city of Newark (see Passaic River basin, diversions). During peak flows, frequent variations in flow due to automatic gate operations upstream. Several measurements of water temperature were made during the year. Satellite telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with and record of gate openings provided by the Department of Public Affairs, Division of Water Supply, city of Newark. Prior to May 22, 1970, discharge figures provided by city of Newark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	e1.9
16	---	---	---	---	---	---	---	---	---	---	---	2.0
17	---	---	---	---	---	---	---	---	---	---	---	2.0
18	---	---	---	---	---	---	---	---	---	---	---	e2.0
19	---	---	---	---	---	---	---	---	---	---	---	e3.1
20	---	---	---	---	---	---	---	---	---	---	---	3.4
21	---	---	---	---	---	---	---	---	---	---	---	2.7
22	---	---	---	---	---	---	---	---	---	---	---	2.4
23	---	---	---	---	---	---	---	---	---	---	---	2.8
24	---	---	---	---	---	---	---	---	---	---	---	3.0
25	---	---	---	---	---	---	---	---	---	---	---	2.6
26	---	---	---	---	---	---	---	---	---	---	---	3.4
27	---	---	---	---	---	---	---	---	---	---	---	4.0
28	---	---	---	---	---	---	---	---	---	---	---	7.4
29	---	---	---	---	---	---	---	---	---	---	---	5.4
30	---	---	---	---	---	---	---	---	---	---	---	3.0
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1990, BY WATER YEAR (WY)

MEAN	15.9	32.3	38.7	37.0	48.0	94.6	127	66.3	32.9	19.1	15.2	19.8
MAX	288	309	236	208	270	572	506	263	360	238	228	211
(WY)	1956	1928	1973	1953	1939	1936	1983	1989	1972	1938	1955	1960
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1929	1929	1929	1931	1930	1965	1950	1954	1944	1923	1923	1929

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ--Continued

SUMMARY STATISTICS	SEPTEMBER 1992		WATER YEARS 1923 - 1990	
ANNUAL MEAN	---		45.3	
HIGHEST ANNUAL MEAN	---		109A	1952
LOWEST ANNUAL MEAN	---		.12	1954
HIGHEST DAILY MEAN	7.4	Sep 28	3170a	Apr 6 1984
LOWEST DAILY MEAN	1.9	Sep 15	.00	Oct 1 1922
ANNUAL SEVEN-DAY MINIMUM	---		.00	Oct 18 1922
INSTANTANEOUS PEAK FLOW	14	Sep 28	6100a	Oct 10 1903
INSTANTANEOUS PEAK STAGE	2.69	Sep 28	17.40a	Oct 10 1903
INSTANTANEOUS LOW FLOW	0	Sep 19	0a	Many days
10 PERCENT EXCEEDS	---		138	
50 PERCENT EXCEEDS	---		4.4	
90 PERCENT EXCEEDS	---		.00	

a Since 1898.
e Estimated.

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
07...	1200	E0.60	265	--	6.5	12.7	105	E2.0	8	4
FEB 1992										
03...	1215	E6.0	195	7.8	2.0	15.0	111	E1.5	<20	<10
MAR										
25...	1215	E7.0	240	7.8	3.0	13.5	102	0.6	2	10
MAY										
19...	1230	E7.0	197	7.8	16.0	10.3	105	E2.3	49	10
AUG										
04...	1130	E3.0	203	7.8	21.5	8.1	95	<1.1	4	30

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
07...	76	19	7.0	19	1.2	43	17	38	0.2
FEB 1992									
03...	51	13	4.5	16	0.70	22	17	32	0.2
MAR									
25...	54	14	4.7	23	0.70	24	17	49	<0.1
MAY									
19...	48	12	4.4	15	0.80	29	12	30	<0.1
AUG									
04...	56	14	5.0	14	0.70	36	12	35	0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
07...	8.0	136	0.005	0.003	0.21	0.14	0.04	0.11	0.31
FEB 1992									
03...	9.6	109	<0.003	<0.003	0.55	0.53	<0.03	<0.03	0.23
MAR									
25...	9.4	135	0.004	0.004	0.54	0.54	0.12	0.12	0.17
MAY									
19...	7.4	100	<0.003	<0.003	0.16	0.17	<0.03	<0.03	0.32
AUG									
04...	7.0	110	0.011	0.009	0.24	0.24	<0.03	<0.03	0.31

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
07...	0.21	0.52	0.35	0.38	<0.02	3.1	0.4	11	--
FEB 1992									
03...	0.16	0.78	0.69	0.08	0.04	2.8	--	7	--
MAR									
25...	0.11	0.71	0.65	0.12	<0.02	2.6	--	3	--
MAY									
19...	0.20	0.48	0.37	0.03	0.03	4.5	0.4	4	--
AUG									
04...	0.24	0.55	0.48	0.04	0.02	4.7	0.2	5	--

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991											
07...	1200	--	<1	1	1.8	150	310	<0.1	5.1	--	3
07...	1200	15	--	--	--	--	--	--	--	1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
07...	--	--	--	<1	--	8	<5	--	10	--
07...	<10	<10	<1	--	<1	--	--	16	--	530

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
07...	7200	--	70	--	240	--	<0.01	--	<10	--
07...	--	3	--	180	--	<0.10	--	2	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
07...	<1	--	60	6	<1.0	<0.1	2.0	0.6	1.0	11
07...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
07...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
07...	--	--	--	--	--	--	--	--	--	--

01383500 WANAQUE RIVER AT AWOSTING, NJ

LOCATION.--Lat 41°09'31", long 74°20'00", Passaic County, Hydrologic Unit 02030103, on right bank 700 ft downstream from dam at outlet of Greenwood Lake at Awosting.

DRAINAGE AREA.--27.1 mi^2.

PERIOD OF RECORD.--May 1919 to current year. Prior to October 1940, published as "at Greenwood Lake".

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922(M), 1928(M), 1936. WDR NJ-79-1: 1933(M), 1936(M), 1945(M), 1948(P), 1951(P), 1952(P), 1953(M), 1955(P), 1956(M), 1957(M), 1958(M), 1960(P), 1961(M), 1968(P), 1969(P). WDR NJ-80-1: 1960(P).

GAGE.--Water-stage recorder. Concrete control since Oct. 31, 1938. Datum of gage is 601.32 ft above sea level (levels from New Jersey Geological Survey bench mark). Prior to Apr. 1, 1926, nonrecording gage and Apr. 1, 1926, to Oct. 31, 1938, water-stage recorder at site 100 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Greenwood Lake (see Passaic River basin, reservoirs in). Water diverted into basin above gage from Upper Greenwood Lake (Hudson River basin) by North Jersey District Water Supply Commission since 1968. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 28	1215	234	3.17	June 6	1900	*621	*3.97
June 1	1645	238	3.18				

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	21	53	27	60	48	120	40	218	37	22	13
2	1.9	19	52	25	51	46	107	38	209	30	16	11
3	2.0	20	87	26	40	43	91	46	160	24	13	11
4	2.0	19	138	35	37	41	78	39	120	26	26	13
5	1.7	18	129	41	35	40	72	35	130	24	26	12
6	1.9	14	115	37	31	39	57	33	532	27	20	9.9
7	1.8	14	99	37	29	45	48	30	536	23	16	12
8	1.6	16	90	29	29	56	47	29	387	17	13	12
9	1.5	16	86	28	29	54	40	36	286	24	24	12
10	1.5	15	89	30	26	52	41	38	198	22	30	11
11	1.6	15	81	24	25	97	45	36	145	19	31	17
12	1.5	17	76	26	24	109	44	32	110	15	35	13
13	1.5	15	72	25	22	106	38	31	84	15	29	12
14	1.5	16	72	35	24	93	33	30	69	16	27	12
15	2.2	16	67	48	25	84	30	25	58	18	25	11
16	27	20	62	44	40	72	27	30	45	25	22	9.8
17	48	18	55	37	39	61	34	31	36	20	32	9.2
18	62	14	53	35	36	57	42	33	29	19	41	8.5
19	64	13	47	32	36	66	50	28	37	16	42	11
20	57	13	27	30	35	62	50	24	49	14	38	9.0
21	50	16	45	29	32	56	50	22	42	12	31	8.1
22	46	45	42	28	30	49	54	21	34	9.2	27	8.3
23	43	103	41	37	29	50	61	19	25	11	23	13
24	40	111	40	85	29	43	57	24	29	16	20	10
25	39	99	36	86	34	38	66	23	31	14	18	8.2
26	38	85	34	82	53	44	61	19	27	15	17	8.8
27	37	71	31	78	58	167	57	20	50	30	16	9.5
28	41	61	28	75	57	223	51	19	53	30	16	11
29	32	57	30	73	60	191	46	16	44	23	23	13
30	31	52	37	70	---	147	42	14	37	20	18	10
31	28	---	33	67	---	141	---	60	---	20	16	---
TOTAL	709.0	1029	1947	1361	1055	2420	1639	921	3810	631.2	753	329.3
MEAN	22.9	34.3	62.8	43.9	36.4	78.1	54.6	29.7	127	20.4	24.3	11.0
MAX	64	111	138	86	60	223	120	60	536	37	42	17
MIN	1.5	13	27	24	22	38	27	14	25	9.2	13	8.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1992, BY WATER YEAR (WY)

MEAN	26.6	55.2	64.7	65.1	66.0	104	97.9	62.7	38.4	25.2	24.9	25.9
MAX	210	210	197	221	168	271	333	233	178	132	208	161
(WY)	1956	1984	1974	1979	1981	1980	1984	1989	1972	1938	1955	1979
MIN	.20	.18	1.88	6.98	16.3	43.5	24.7	13.4	4.37	2.76	.006	.057
(WY)	1932	1932	1985	1981	1980	1938	1985	1941	1957	1981	1929	1929

01383500 WANAQUE RIVER AT AWOSTING, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1929 - 1992	
ANNUAL TOTAL	14466.7		16604.5			
ANNUAL MEAN	39.6		45.4		54.6	
HIGHEST ANNUAL MEAN					105	1984
LOWEST ANNUAL MEAN					19.9	1965
HIGHEST DAILY MEAN	337	Mar 5	536	Jun 7	2350	Apr 6 1984
LOWEST DAILY MEAN	1.5	Oct 9	1.5	Oct 9	.00	Oct 15 1928
ANNUAL SEVEN-DAY MINIMUM	1.5	Oct 8	1.5	Oct 8	.00	Jul 27 1929
INSTANTANEOUS PEAK FLOW			621	Jun 6	2800a	Apr 5 1984
INSTANTANEOUS PEAK STAGE			3.97	Jun 6	6.65	Apr 5 1984
INSTANTANEOUS LOW FLOW			1.3	Oct 15	.00	Many days
10 PERCENT EXCEEDS	86		85		126	
50 PERCENT EXCEEDS	32		32		32	
90 PERCENT EXCEEDS	2.2		12		4.6	

a From rating curve extended above 750 ft^3/s based on theoretical weir formula.

01384500 RINGWOOD CREEK NEAR WANAQUE, NJ

LOCATION.--Lat 41°07'36", long 74°15'52", Passaic County, Hydrologic Unit 02030103, on right bank 500 ft upstream from Wanaque Reservoir, 0.7 mi downstream from Ringwood Mill Pond dam, and 6.5 mi north of Wanaque.

DRAINAGE AREA.--19.1 mi^2.

PERIOD OF RECORD.--October 1934 to September 1978, October 1985 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR NJ-82-1: 1935-77(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 292.67 ft above sea level (levels by New Jersey Geological Survey). Prior to Sept. 30, 1978, at datum 10.0 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair. Records given herein include flow over spillway and through ports in dam when open or through waste gate in dam. No flow through ports or waste gates this year. Flow slightly regulated by Ringwood Mill Pond, Sterling, and Sterling Forest Lakes, and several smaller lakes above station. Several measurements of water temperature were made during the year.

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 230 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 27	0700	235	11.68	June 6	0230	*335	*12.24

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	9.3	25	15	31	28	78	27	160	17	10	7.8
2	4.5	8.4	24	15	27	29	67	26	104	14	8.8	6.8
3	4.0	8.0	79	15	25	27	59	28	78	12	8.0	17
4	3.6	7.7	108	21	23	26	51	25	62	15	10	19
5	3.4	7.1	77	25	22	25	45	24	107	14	12	11
6	11	7.1	64	21	20	25	40	23	294	13	9.2	9.6
7	14	6.6	56	19	20	32	36	21	208	12	8.4	9.3
8	9.9	6.3	51	17	20	45	33	22	159	10	7.4	9.7
9	8.6	6.3	50	17	18	36	30	36	144	16	29	9.1
10	7.9	6.5	59	18	21	34	32	29	100	13	25	9.1
11	8.2	8.6	49	18	17	81	41	26	74	10	17	16
12	11	10	43	16	20	67	36	23	58	9.1	17	11
13	9.3	9.5	40	16	16	57	30	22	48	9.6	13	9.2
14	8.7	8.7	40	31	15	51	27	21	39	11	13	9.1
15	11	8.0	35	34	17	46	25	19	32	10	12	8.6
16	19	7.9	31	25	36	40	25	24	26	16	12	7.7
17	22	7.2	27	22	26	36	33	25	23	12	17	7.0
18	28	6.3	25	e22	23	34	39	22	20	12	21	6.4
19	21	6.4	22	e21	24	36	46	19	28	11	19	6.7
20	19	5.5	20	18	23	34	39	18	31	9.7	16	6.4
21	17	7.4	20	18	22	32	36	16	23	9.1	13	5.5
22	16	41	19	18	20	30	38	15	19	7.9	12	5.7
23	15	97	19	40	20	29	40	13	16	9.5	11	7.7
24	14	62	18	101	20	26	35	15	18	15	11	6.6
25	14	51	17	58	23	27	43	21	18	11	9.8	5.1
26	13	42	15	50	51	47	37	17	15	11	9.0	7.2
27	12	37	14	43	44	215	34	16	41	20	8.7	8.7
28	12	32	14	40	36	156	31	15	32	13	9.7	8.8
29	11	29	18	38	33	115	29	14	22	10	11	7.6
30	10	27	22	35	---	94	27	13	18	9.3	9.7	5.8
31	9.7	---	18	34	---	95	---	95	---	8.8	8.7	---
TOTAL	372.9	576.8	1119	881	713	1655	1162	730	2017	371.0	398.4	265.2
MEAN	12.0	19.2	36.1	28.4	24.6	53.4	38.7	23.5	67.2	12.0	12.9	8.84
MAX	28	97	108	101	51	215	78	95	294	20	29	19
MIN	3.4	5.5	14	15	15	25	25	13	15	7.9	7.4	5.1
CFSM	.63	1.01	1.89	1.49	1.29	2.80	2.03	1.23	3.52	.63	.67	.46
IN.	.73	1.12	2.18	1.72	1.39	3.22	2.26	1.42	3.93	.72	.78	.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1992, BY WATER YEAR (WY)

MEAN	16.2	32.5	42.2	40.1	41.3	65.8	58.4	40.2	23.3	14.8	13.8	12.2
MAX	131	88.8	103	149	109	157	123	131	121	86.1	107	59.0
(WY)	1956	1973	1974	1979	1970	1936	1940	1989	1972	1945	1955	1960
MIN	1.07	2.27	4.06	12.5	14.0	28.5	18.3	10.9	3.78	1.31	.70	.28
(WY)	1945	1950	1940	1940	1940	1938	1966	1941	1957	1966	1966	1964

01384500 RINGWOOD CREEK NEAR WANAQUE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1935 - 1992	
ANNUAL TOTAL	8856.54		10261.3			
ANNUAL MEAN	24.3		28.0		33.3	
HIGHEST ANNUAL MEAN					54.4	1952
LOWEST ANNUAL MEAN					13.2	1965
HIGHEST DAILY MEAN	164	Mar 5	294	Jun 6	756	Aug 19 1955
LOWEST DAILY MEAN	.47	Jul 22	3.4	Oct 5	.00	Sep 11 1963
ANNUAL SEVEN-DAY MINIMUM	.59	Jul 19	6.2	Sep 19	.16	Sep 5 1944
INSTANTANEOUS PEAK FLOW			335	Jun 6	1150	Mar 30 1951
INSTANTANEOUS PEAK STAGE			12.24	Jun 6	13.74	Mar 30 1951
INSTANTANEOUS LOW FLOW			3.1	Oct 5	.00	Many days
ANNUAL RUNOFF (CFSM)	1.27		1.47		1.74	
ANNUAL RUNOFF (INCHES)	17.25		19.99		23.71	
10 PERCENT EXCEEDS	56		51		76	
50 PERCENT EXCEEDS	17		20		21	
90 PERCENT EXCEEDS	1.3		8.0		2.2	

e Estimated.

01387000 WANAQUE RIVER AT WANAQUE, NJ

LOCATION.--Lat 41°02'39", long 74°17'36", Passaic County, Hydrologic Unit 02030103, on left bank 750 ft downstream from Raymond Dam in Wanaque, and 50 ft upstream from bridge on State Highway 511.

DRAINAGE AREA.--90.4 mi^2, considered as 94 mi^2 Oct. 1, 1928 to Sept. 30, 1934.

PERIOD OF RECORD.--December 1903 to December 1905 (gage heights only), September 1912 to April 1915, May 1919 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 210.00 ft above sea level (levels from New Jersey Geological Survey bench mark). Dec. 16, 1903, to Dec. 31, 1905, nonrecording gage on highway bridge at site 50 ft downstream at different datum. Sept. 15, 1912, to Apr. 1, 1922, nonrecording gage at site 200 ft downstream from present concrete control at different datum. Apr. 1, 1922 to Mar. 14, 1931, water-stage recorder at site 400 ft downstream from present concrete control at present datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Greenwood Lake 11 mi above station, since October 1987 by Monksville Reservoir just upstream of Wanaque Reservoir, and since 1928 by Wanaque Reservoir (see Passaic River basin, reservoirs in). North Jersey District Water Supply Commission diverts water for municipal supply from Wanaque Reservoir. Water is diverted to Wanaque Reservoir from Posts Brook at Wanaque and from Ramapo River at Pompton Lakes (see Passaic River basin, diversions). Water diverted into basin above gage from Upper Greenwood Lake (Hudson River basin) by North Jersey District Water Supply Commission since 1968. Several measurements of water temperature, other than those published, were made during the year. National Weather Service rain-gage and USGS satellite gage-height telemeters at station.

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	19	18	17	17	18	18	18	22	19	18	17
2	18	19	18	17	17	18	18	18	43	19	18	17
3	18	19	21	17	17	19	18	18	146	19	18	18
4	18	19	20	17	17	19	18	18	150	19	18	17
5	18	19	19	17	17	19	18	18	228	19	18	17
6	19	18	18	17	17	19	18	18	1630	19	18	17
7	18	17	18	18	17	19	18	18	1270	19	18	17
8	18	17	18	17	18	19	18	18	801	19	18	17
9	18	17	18	17	18	19	19	18	575	19	19	17
10	18	17	19	17	18	19	19	18	370	19	18	18
11	18	17	21	17	18	19	19	18	223	19	19	17
12	18	17	19	17	18	19	19	18	134	19	18	17
13	18	17	19	17	18	19	18	18	73	19	18	18
14	18	17	19	17	18	19	18	18	30	18	18	18
15	19	17	19	17	19	19	18	18	29	19	18	18
16	18	17	21	17	18	18	19	18	20	18	18	18
17	19	17	20	17	18	18	19	18	18	18	18	17
18	18	17	21	16	18	18	19	18	18	18	18	17
19	19	18	19	16	18	18	19	18	18	18	18	18
20	19	18	19	16	18	18	18	19	17	18	18	17
21	19	18	19	16	18	18	18	19	17	18	17	17
22	19	19	19	16	18	18	18	20	18	18	17	17
23	19	18	19	16	18	18	18	20	18	19	17	17
24	19	18	18	16	18	18	18	20	19	19	17	17
25	19	18	18	16	18	18	18	20	19	18	17	17
26	19	18	18	16	19	19	18	20	19	19	17	18
27	19	18	18	16	18	20	18	19	19	18	17	17
28	19	18	18	16	18	19	18	20	19	18	18	17
29	19	18	18	16	18	19	18	20	19	19	17	17
30	19	17	17	16	---	19	18	20	19	18	17	17
31	19	---	17	17	---	19	---	24	---	19	17	---
TOTAL	574	533	583	515	517	578	548	583	6001	577	550	518
MEAN	18.5	17.8	18.8	16.6	17.8	18.6	18.3	18.8	200	18.6	17.7	17.3
MAX	19	19	21	18	19	20	19	24	1630	19	19	18
MIN	18	17	17	16	17	18	18	18	17	18	17	17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1992, BY WATER YEAR (WY)

MEAN	37.7	49.5	65.6	73.2	79.4	167	184	103	61.3	41.2	29.2	36.2
MAX	258	435	434	453	471	758	806	545	416	247	258	477
(WY)	1956	1928	1921	1915	1915	1920	1984	1989	1972	1938	1927	1927
MIN	1.82	1.70	1.48	.76	2.05	1.91	1.54	1.72	2.17	1.73	1.53	1.51
(WY)	1966	1966	1950	1950	1966	1966	1966	1966	1966	1965	1965	1965

01387000 WANAQUE RIVER AT WANAQUE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1912 - 1992	
ANNUAL TOTAL	12017		12077			
ANNUAL MEAN	32.9		33.0		75.7	
HIGHEST ANNUAL MEAN					231	1920
LOWEST ANNUAL MEAN					1.93	1966
HIGHEST DAILY MEAN	337	Apr 25	1630	Jun 6	5470	Apr 6 1984
LOWEST DAILY MEAN	16	Jul 4	16	Jan 18	.06	Oct 11 1984
ANNUAL SEVEN-DAY MINIMUM	17	Jul 3	16	Jan 18	.50	Dec 14 1949
INSTANTANEOUS PEAK FLOW			1840	Jun 6	10500	Apr 5 1984
INSTANTANEOUS PEAK STAGE			6.34	Jun 6	10.82	Apr 5 1984
INSTANTANEOUS LOW FLOW			4.9	Nov 6	.06	Oct 11 1984
10 PERCENT EXCEEDS	75		19		210	
50 PERCENT EXCEEDS	18		18		19	
90 PERCENT EXCEEDS	17		17		15	

01387420 RAMAPO RIVER AT SUFFERN, NY

LOCATION.--Lat 41°07'06", long 74°09'38", Rockland County, NY, Hydrologic Unit 02030103, on left bank, 145 ft downstream from highway bridge on New York State Thruway at Suffern, and 1.1 mi upstream from Mahwah River.

DRAINAGE AREA.--93.0 mi^2.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 264.44 ft above sea level.

REMARKS.--Records fair. Flow affected by diversion from Spring Valley Water Company well field upstream from station and by occasional regulation by Lake Sebago.

AVERAGE DISCHARGE.--13 years, 169 ft^3/s, unadjusted.

COOPERATION.--Figures of pumpage from well field provided by Spring Valley Water Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft^3/s, Apr. 5, 1984, gage height, 15.38 ft, from rating curve extended above 5,400 ft^3/s; minimum discharge, 2.6 ft^3/s, Sept. 30, 1981, gage height, 1.23 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 6,600 ft^3/s, Mar. 12, 1936, by computation of flow over dam at site 0.65 mi upstream, drainage area, 90.6 mi^2.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 27	1730	*1,620	*6.83	June 6	1200	1,400	6.39

Minimum discharge, 11 ft^3/s, Sept. 2, gage height, 1.43 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	44	134	92	129	147	322	114	766	57	43	13
2	47	41	126	83	113	138	278	112	445	48	29	12
3	39	39	346	83	109	130	245	136	280	40	22	36
4	33	39	706	114	95	122	210	122	204	47	38	66
5	30	37	528	199	93	117	184	108	298	45	39	39
6	140	34	350	164	87	111	158	103	1300	53	27	26
7	197	e31	283	135	82	137	139	94	843	47	21	21
8	119	e29	248	120	82	221	130	92	522	35	16	20
9	91	29	232	113	80	194	121	156	399	50	79	18
10	76	29	273	122	e66	172	127	135	280	47	107	16
11	72	39	242	115	e62	453	147	117	215	35	68	37
12	105	61	204	104	e54	434	143	104	169	27	57	33
13	96	71	186	98	e56	303	125	95	137	27	42	22
14	78	63	189	135	62	246	113	90	115	31	37	18
15	81	55	172	204	72	207	106	80	99	32	35	18
16	156	50	144	149	168	172	101	95	85	77	30	41
17	182	48	138	e135	140	153	160	112	73	59	50	49
18	247	44	130	e120	113	141	219	96	62	45	78	48
19	192	40	122	e110	108	156	254	85	81	37	75	44
20	140	38	117	e105	110	152	227	72	108	28	57	27
21	114	42	105	104	103	134	199	69	83	22	43	22
22	103	220	104	104	94	120	190	60	65	20	34	47
23	94	890	102	127	91	122	197	53	53	33	27	67
24	86	616	102	502	91	112	165	54	60	54	23	61
25	84	366	95	340	103	108	200	92	81	41	18	67
26	72	264	87	232	218	155	196	77	60	33	16	26
27	65	214	82	191	248	1320	166	70	130	54	14	27
28	59	191	79	162	204	1030	143	64	128	43	20	29
29	55	169	88	152	181	547	130	55	87	29	25	21
30	50	147	122	142	---	379	123	49	64	25	22	16
31	46	---	108	136	---	373	---	365	---	23	16	---
TOTAL	3004	3980	5944	4692	3214	8306	5218	3126	7292	1244	1208	987
MEAN	96.9	133	192	151	111	268	174	101	243	40.1	39.0	32.9
MAX	247	890	706	502	248	1320	322	365	1300	77	107	67
MIN	30	29	79	83	54	108	101	49	53	20	14	12
(†)	14	14	14	14	15	14	14	14	14	14	14	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1992, BY WATER YEAR (WY)

MEAN	104	175	199	148	217	296	358	243	121	56.8	58.2	64.7
MAX	389	323	693	290	475	816	862	777	269	234	305	219
(WY)	1990	1989	1984	1982	1981	1983	1984	1989	1982	1984	1990	1987
MIN	11.0	17.1	29.6	6.84	49.7	128	77.1	98.5	22.8	19.6	10.1	12.3
(WY)	1985	1985	1981	1981	1980	1981	1985	1987	1991	1983	1981	1981

01387420 RAMAPO RIVER AT SUFFERN, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1979 - 1992	
ANNUAL TOTAL	46283.1		48215			
ANNUAL MEAN	127		132		169	
ANNUAL MEAN (†)	12		14			
HIGHEST ANNUAL MEAN					295	1984
LOWEST ANNUAL MEAN					78.2	1985
HIGHEST DAILY MEAN	1230	Mar 4	1320	Mar 27	7110	Apr 5 1984
LOWEST DAILY MEAN	5.9	Sep 13	12	Sep 2	3.7	Sep 30 1981
ANNUAL SEVEN-DAY MINIMUM	6.6	Sep 11	17	Aug 27	6.0	Jan 26 1981
10 PERCENT EXCEEDS	270		246		357	
50 PERCENT EXCEEDS	96		95		87	
90 PERCENT EXCEEDS	9.6		29		14	

e Estimated.
† Diversion, in cubic feet per second, by pumpage from well field upstream of gage.

01387450 MAHWAH RIVER NEAR SUFFERN, NY

LOCATION.--Lat 41°08'27", long 74°07'01", Rockland County, NY, Hydrologic Unit 02030103, on left bank, 13 ft upstream from bridge on U.S. Highway 202, 2.5 mi northeast of Suffern, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--12.3 mi^2.

PERIOD OF RECORD.--August 1958 to current year.

REVISED RECORDS.--WDR NY-79-1: 1977(P). WDR NY-87-1: 1986.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 321.57 ft above sea level. Prior to Nov. 18, 1976, water-stage recorder at site on right bank 13 ft downstream, at present datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Occasional regulation from unknown source. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--34 years, 24.4 ft^3/s, 26.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft^3/s, Nov. 8, 1977, gage height, 9.91 ft, from rating curve extending above 850 ft^3/s on basis of contracted-opening measurement at gage height 9.91 ft; minimum discharge, 0.05 ft^3/s, Oct. 20, 21, 1970, result of temporary pumping from gage pool.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0145	*301	*4.18	No other peak greater than base discharge.			

Minimum discharge, 0.87 ft^3/s, Sept. 24, gage height, 1.39 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	3.8	16	9.7	13	16	39	16	115	10	7.3	2.0
2	4.0	3.7	15	9.1	12	16	37	16	59	8.7	4.2	2.0
3	3.6	3.3	72	9.0	11	15	32	17	38	7.7	3.7	3.3
4	3.3	3.1	95	15	10	15	29	16	29	10	5.0	9.7
5	5.8	3.1	55	18	9.9	14	26	15	54	9.7	5.7	4.5
6	22	3.0	41	15	9.1	13	23	15	208	8.5	4.5	3.8
7	14	2.9	34	13	8.8	21	22	13	108	7.3	3.8	3.3
8	11	2.7	30	11	8.5	30	20	13	108	6.4	3.4	3.2
9	8.6	2.7	28	11	8.3	23	19	22	86	13	25	2.9
10	7.6	2.7	35	13	7.0	21	18	17	53	7.7	16	2.8
11	7.1	4.7	28	12	6.8	82	20	15	39	6.2	9.9	7.4
12	10	5.7	24	11	6.6	58	18	14	32	5.4	7.8	3.9
13	7.1	4.8	22	11	6.1	43	17	13	27	5.7	5.5	3.2
14	6.5	4.1	22	21	6.2	35	15	12	23	6.7	5.8	2.8
15	8.2	3.6	20	21	7.9	29	14	11	19	5.9	4.8	2.5
16	14	3.3	19	16	36	25	14	14	16	13	4.6	2.4
17	16	3.1	16	13	18	23	17	15	14	7.4	6.4	2.2
18	17	2.7	15	12	15	21	22	13	13	6.6	11	2.0
19	12	2.9	13	10	14	22	26	11	20	5.8	7.7	2.2
20	10	2.8	11	9.7	14	21	22	10	23	5.0	6.2	2.0
21	8.7	4.0	12	9.4	13	20	20	9.5	19	4.3	4.9	1.9
22	7.7	56	12	9.9	12	18	20	8.6	15	3.8	4.1	2.0
23	7.1	142	11	19	11	17	24	7.9	12	18	4.3	2.9
24	6.4	67	12	43	11	16	22	8.4	13	11	3.4	2.5
25	6.0	43	10	24	13	16	27	13	12	7.2	3.0	1.7
26	5.8	31	9.6	19	30	26	24	10	10	6.5	2.9	2.7
27	6.0	25	8.9	16	26	192	22	10	30	14	2.6	4.0
28	5.3	22	8.6	15	23	98	20	11	24	7.6	2.5	4.8
29	4.4	20	12	15	20	62	18	8.6	16	5.6	2.8	3.1
30	4.3	18	16	14	---	48	17	7.8	12	4.6	2.5	2.6
31	4.3	---	12	14	---	46	---	92	---	4.7	2.3	---
TOTAL	258.5	496.7	735.1	458.8	387.2	1102	664	474.8	1247	244.0	183.6	96.3
MEAN	8.34	16.6	23.7	14.8	13.4	35.5	22.1	15.3	41.6	7.87	5.92	3.21
MAX	22	142	95	43	36	192	39	92	208	18	25	9.7
MIN	3.3	2.7	8.6	9.0	6.1	13	14	7.8	10	3.8	2.3	1.7
CFSM	.68	1.35	1.93	1.20	1.09	2.89	1.80	1.25	3.38	.64	.48	.26
IN.	.78	1.50	2.22	1.39	1.17	3.33	2.01	1.44	3.77	.74	.56	.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

MEAN	14.1	26.1	29.2	26.8	32.6	44.2	41.3	31.3	18.1	10.4	9.09	9.93
MAX	43.4	100	88.8	104	76.2	113	115	105	82.7	45.4	37.9	57.3
(WY)	1990	1978	1984	1979	1970	1983	1983	1989	1972	1984	1990	1971
MIN	1.94	2.31	5.72	2.02	7.68	15.0	8.14	12.5	3.92	1.31	1.16	.68
(WY)	1981	1965	1981	1981	1980	1985	1985	1965	1991	1977	1981	1980

01387450 MAHWAH RIVER NEAR SUFFERN, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1958 - 1992	
ANNUAL TOTAL	6113.83		6348.0			
ANNUAL MEAN	16.8		17.3		24.4	
HIGHEST ANNUAL MEAN					41.4	1984
LOWEST ANNUAL MEAN					11.2	1985
HIGHEST DAILY MEAN	301	Mar 4	208	Jun 6	1040	Nov 8 1977
LOWEST DAILY MEAN	.56	Aug 8	1.7	Sep 25	.12	Oct 21 1970
ANNUAL SEVEN-DAY MINIMUM	.81	Sep 11	2.1	Sep 16	.48	Aug 29 1980
ANNUAL RUNOFF (CFSM)	1.36		1.41		1.98	
ANNUAL RUNOFF (INCHES)	18.49		19.20		26.95	
10 PERCENT EXCEEDS	34		31		52	
50 PERCENT EXCEEDS	12		12		15	
90 PERCENT EXCEEDS	1.2		3.1		2.4	

01387500 RAMAPO RIVER NEAR MAHWAH, NJ

LOCATION.--Lat 41°05'51", long 74°09'48", Bergen County, Hydrologic Unit 02030103, on left bank 350 ft downstream from 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1902 to December 1906, September 1922 to current year. October 1902 to February 1905 monthly discharge only, published in WSP 1302. Figures of daily discharge Feb. 10, 1903, to Dec. 31, 1904, published in WSP 97, 125, are unreliable and should not be used. Gage-height records for 1903-14 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 781: 1904(M). WSP 1031: 1938, 1940. WSP 1552: 1923(M), 1924, 1925-26(M), 1927-28, 1933, 1937. WRD-NJ 1971: 1968(M). WDR NJ-82-1: Drainage area. WDR-NJ-87-1: 1986.

GAGE.--Water-stage recorder. Datum of gage is 253.10 ft above sea level. Prior to Dec. 31, 1906, nonrecording gage on former bridge at site 250 ft downstream at different datum. Sept. 1, 1922 to Dec. 23, 1936, water-stage recorder just below former bridge at present datum.

REMARKS.--No estimated daily discharges. Records fair. Flow affected by diversion from Spring Valley (NY) Water Company well field upstream from station (see station 01387420). Occasional regulation from lakes and ponds upstream from the station. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 27	1830	*1,850	*6.97	June 6	1130	1,660	6.73

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	56	187	109	171	204	439	169	1040	83	74	29
2	70	54	184	107	146	189	388	167	577	71	46	27
3	55	50	527	103	132	176	344	199	382	64	39	76
4	50	49	864	165	120	166	302	177	286	82	53	98
5	48	47	631	261	115	157	274	157	452	72	53	51
6	191	46	446	217	103	151	247	147	1550	76	42	41
7	250	46	375	177	98	203	224	131	1040	67	37	38
8	156	51	330	153	97	298	210	141	655	54	33	36
9	113	45	313	145	96	263	196	244	560	101	169	34
10	90	45	375	160	79	246	204	200	399	71	165	34
11	89	58	323	147	79	604	237	171	310	54	101	69
12	136	79	277	131	72	583	224	147	256	47	81	47
13	118	85	261	130	64	414	194	133	215	47	58	37
14	93	75	267	196	71	341	172	122	179	55	58	32
15	113	67	245	266	108	292	158	108	150	73	51	31
16	209	61	210	198	273	254	152	146	126	128	51	48
17	246	58	188	167	203	231	232	164	107	84	71	54
18	307	53	177	142	156	224	295	136	92	66	116	54
19	239	50	152	136	145	238	340	116	141	54	100	62
20	183	48	138	110	145	231	299	97	177	46	74	39
21	147	68	136	109	134	206	267	90	133	41	57	33
22	130	363	135	108	123	191	264	78	99	38	47	54
23	116	1070	133	183	116	192	277	69	82	112	42	84
24	104	722	131	584	126	173	244	84	103	102	39	65
25	101	454	119	412	145	174	287	134	120	61	35	78
26	88	341	106	295	289	245	274	103	86	72	37	47
27	81	280	99	243	325	1550	243	92	233	109	34	45
28	73	252	100	219	269	1250	216	84	203	66	36	42
29	67	228	127	205	243	700	197	71	132	48	44	33
30	66	204	172	192	---	504	182	62	93	43	36	27
31	59	---	139	183	---	498	---	570	---	65	32	---
TOTAL	3859	5105	7867	5953	4243	11148	7582	4509	9978	2152	1911	1445
MEAN	124	170	254	192	146	360	253	145	333	69.4	61.6	48.2
MAX	307	1070	864	584	325	1550	439	570	1550	128	169	98
MIN	48	45	99	103	64	151	152	62	82	38	32	27
CFSM	1.04	1.42	2.11	1.60	1.22	3.00	2.11	1.21	2.77	.58	.51	.40
IN.	1.20	1.58	2.44	1.85	1.32	3.46	2.35	1.40	3.09	.67	.59	.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1992, BY WATER YEAR (WY)

MEAN	145	223	272	260	281	441	402	262	155	99.5	104	111
MAX	954	736	873	877	701	1151	1055	994	735	602	755	478
(WY)	1904	1978	1984	1979	1970	1936	1984	1989	1972	1945	1955	1927
MIN	13.8	24.4	43.4	16.5	70.8	144	88.4	79.5	36.5	21.9	13.5	11.1
(WY)	1942	1965	1981	1981	1980	1985	1985	1905	1991	1957	1981	1964

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1903 - 1992		
ANNUAL TOTAL	64074		65752				
ANNUAL MEAN	176		180		229		
HIGHEST ANNUAL MEAN					461		1903
LOWEST ANNUAL MEAN					99.5		1985
HIGHEST DAILY MEAN	1790	Mar 4	1550	Mar 27	8920	Oct 9	1903
LOWEST DAILY MEAN	15	Sep 18	27	Sep 2	6.1a	Sep 30	1981
ANNUAL SEVEN-DAY MINIMUM	16	Sep 12	34	Aug 27	8.7	Sep 1	1981
INSTANTANEOUS PEAK FLOW			1850	Mar 27	15500b	Apr 5	1984
INSTANTANEOUS PEAK STAGE			6.97	Mar 27	13.35	Apr 5	1984
INSTANTANEOUS LOW FLOW			25	Sep 30	4.6	Sep 30	1981
ANNUAL RUNOFF (CFSM)	1.46		1.50		1.91		
ANNUAL RUNOFF (INCHES)	19.86		20.38		25.97		
10 PERCENT EXCEEDS	363		333		507		
50 PERCENT EXCEEDS	136		131		139		
90 PERCENT EXCEEDS	20		46		28		

a Possible regulation.
b From rating curve extended above 6,500 ft^3/s.

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: February 1964 to June 1965.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
21...	1100	149	269	7.7	8.5	11.8	101	<1.1	70	8
JAN 1992										
21...	1130	110	--	8.2	1.0	15.6	--	<1.2	40	<10
APR										
15...	1100	161	318	8.1	9.5	15.6	137	<1.0	2	<10
MAY										
20...	1100	98	350	7.9	15.0	11.6	115	<1.0	240	20
JUL										
30...	1200	44	435	8.0	21.0	7.3	83	E2.1	790	200

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
21...	68	19	5.0	22	1.3	48	16	39	<0.1
JAN 1992									
21...	80	22	6.1	30	1.5	57	20	56	0.1
APR									
15...	87	24	6.5	27	1.4	53	21	46	0.1
MAY									
20...	85	23	6.6	29	1.4	61	19	52	0.2
JUL									
30...	110	31	8.5	35	1.9	82	20	62	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
21...	7.4	142	0.013	0.013	0.73	0.74	0.29	0.22	0.64
JAN 1992									
21...	7.5	183	0.013	0.012	1.26	1.19	0.20	0.26	0.50
APR									
15...	3.7	165	0.027	0.027	0.74	0.73	0.16	0.18	0.60
MAY									
20...	5.5	179	0.036	0.036	1.22	1.22	<0.03	0.04	0.43
JUL									
30...	7.7	222	0.024	0.024	1.36	1.42	0.04	0.06	0.42

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
21...	0.47	1.4	1.2	0.12	0.10	3.9	0.3	3	1.2
JAN 1992									
21...	0.47	1.8	1.7	0.16	0.13	2.6	0.2	--	--
APR									
15...	0.46	1.3	1.2	0.09	0.06	2.7	0.4	20	8.7
MAY									
20...	0.29	1.7	1.5	0.17	0.13	3.0	0.4	--	--
JUL									
30...	0.16	1.8	1.6	--	0.19	23	0.7	8	0.95

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 21...	1100	10	1	<10	50	<1	1	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 21...	80	1	40	0.10	2	<1	<10

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ

LOCATION.--Lat 40°59'33", long 74°16'44", Passaic County, Hydrologic Unit 02030103, on right end of dam at pumping station in Pompton Lakes, 700 ft upstream of bridge on Paterson-Hamburg Turnpike, and 2.0 mi upstream from mouth. Water samples collected upstream of dam at water-supply intake, on right bank. Water-quality monitor is 450 ft downstream of dam.

DRAINAGE AREA.--160 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year.

REVISED RECORDS.--WSP 1552: 1922(M), 1924-25, 1929-31(M), 1934-35(M). WRD-NJ 1970: 1968-69. WRD-NJ 1988: 1984(M).

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 190.96 ft above sea level. Prior to October 1, 1981, at datum 10.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Diversion by North Jersey District Water Supply Commission to Wanaque Reservoir since December 1953 (see Passaic River basin, diversions) and to Oradell Reservoir by Hackensack Water Company since February 1985 (see Hackensack River basin, diversions) for municipal supply. Slight regulation by Pompton Lake, capacity, 300,000,000 gal. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at auxiliary station 700 ft below station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 28	0045	1,880	11.42	June 6	1515	*2,400	*11.65

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	84	149	84	82	78	567	92	1390	117	257	40
2	105	79	118	82	83	83	494	87	848	100	102	35
3	97	69	458	96	95	80	433	105	545	85	72	75
4	82	66	917	109	95	92	380	106	394	102	70	222
5	76	64	688	160	91	86	342	77	505	98	82	99
6	162	61	499	143	98	78	305	65	2170	87	67	70
7	251	61	420	89	88	92	275	55	1540	86	55	61
8	80	59	329	94	83	175	238	59	970	72	49	58
9	73	59	201	94	83	136	171	174	789	122	162	52
10	63	56	282	92	93	75	171	146	575	106	237	49
11	58	69	245	83	108	382	213	100	444	77	151	97
12	68	85	181	98	99	489	209	87	371	64	148	78
13	78	94	160	73	90	394	163	84	297	71	106	60
14	63	91	140	110	97	431	90	72	247	70	94	51
15	59	81	120	160	112	366	76	69	207	84	85	47
16	94	75	100	113	276	315	66	79	176	196	78	45
17	127	69	90	88	104	282	90	77	151	142	97	58
18	201	66	87	105	70	265	231	65	131	105	149	64
19	148	63	84	90	75	282	293	63	157	86	152	73
20	94	60	130	81	73	286	258	63	228	72	115	64
21	66	66	99	74	69	255	199	67	180	62	86	48
22	68	261	96	73	77	234	182	70	140	54	68	47
23	77	1080	94	83	76	228	244	66	117	80	59	86
24	62	957	90	400	75	216	187	77	126	190	53	88
25	69	579	82	373	99	202	235	78	156	109	48	81
26	63	356	85	201	165	256	234	101	127	86	44	97
27	58	268	81	122	227	1440	185	124	274	184	52	75
28	60	224	82	91	159	1630	149	115	278	120	55	82
29	95	196	113	76	119	971	121	101	198	84	56	61
30	92	168	106	94	---	676	105	90	145	69	50	48
31	89	---	93	87	---	616	---	535	---	109	45	---
TOTAL	2895	5566	6419	3718	3061	11191	6906	3149	13876	3089	2944	2111
MEAN	93.4	186	207	120	106	361	230	102	463	99.6	95.0	70.4
MAX	251	1080	917	400	276	1630	567	535	2170	196	257	222
MIN	58	56	81	73	69	75	66	55	117	54	44	35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	151	268	318	313	352	547	512	352	210	137	139	146
MAX	1154	954	1135	1035	838	1670	1465	1195	973	895	889	725
(WY)	1956	1933	1984	1979	1970	1936	1983	1989	1972	1945	1955	1927
MIN	13.6	22.2	12.8	27.5	83.0	67.8	24.8	72.0	39.9	5.89	6.17	10.8
(WY)	1981	1981	1981	1981	1969	1985	1985	1965	1965	1985	1985	1964

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	79972		64925			
ANNUAL MEAN	219		177		286	
HIGHEST ANNUAL MEAN					512	1984
LOWEST ANNUAL MEAN					73.1	1985
HIGHEST DAILY MEAN	2040	Mar 4	2170	Jun 6	10400	Mar 12 1936
LOWEST DAILY MEAN	20	Sep 12	35	Sep 2	.00	Oct 1 1922
ANNUAL SEVEN-DAY MINIMUM	24	Sep 8	48	Aug 27	.00	Dec 1 1980
INSTANTANEOUS PEAK FLOW			2400	Jun 6	15400	Apr 5 1984
INSTANTANEOUS PEAK STAGE			11.65	Jun 6	15.21a	Apr 5 1984
INSTANTANEOUS LOW FLOW			34	Sep 2	.00	Many days
10 PERCENT EXCEEDS	465		367		641	
50 PERCENT EXCEEDS	135		95		163	
90 PERCENT EXCEEDS	36		61		37	

a From gage well, outside high-water marks at 15.33 ft.

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April, 1989 to current year.
WATER TEMPERATURE: April, 1989 to current year.
DISSOLVED OXYGEN: April, 1989 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1989. Data recorded at hourly intervals.

REMARKS.--Discrete water-quality samples were collected upstream of dam at water supply intake, on right bank. Water-quality monitor is 450 ft downstream of dam.

EXTREMES FOR PERIOD OF DAILY RECORD.--
FROM WATER-QUALITY MONITOR DOWNSTREAM OF DAM.
SPECIFIC CONDUCTANCE: Maximum, 499 microsiemens, Jan. 13, 1990; minimum, 105 microsiemens, Oct. 21, 1989.
WATER TEMPERATURE: Maximum, 30.0 °C, July 21,22, Aug. 30, 1991; minimum, 0.5 °C, on several days in water years 1990 and 1992.
DISSOLVED OXYGEN: Maximum recorded, 14.2 mg/l, Dec. 9, 1989, but may have been higher during instrument malfunction Dec. 19, 1989 to Feb. 15, 1990; minimum, 4.7 mg/l, Aug. 9, 1991.

EXTREMES FOR CURRENT YEAR.--
FROM WATER-QUALITY MONITOR DOWNSTREAM OF DAM.
SPECIFIC CONDUCTANCE: Maximum, 401 microsiemens, Feb. 18; minimum, 140 microsiemens, June 7.
WATER TEMPERATURE: Maximum, 27.5 °C, July 1,11,15,21,22; minimum, 0.5 °C, Jan. 26-29.
DISSOLVED OXYGEN: Maximum, 13.7 mg/l, Dec. 20; minimum, 6.2 mg/l, Aug. 26.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 1991												
30...	0830	90	284	7.9	11.5	10.7	98	2.4	80	22	6.1	21
NOV												
19...	0840	66	375	9.0	6.0	16.1	130	4.8	110	30	7.8	31
DEC												
17...	1445	90	--	7.6	3.0	12.4	--	1.5	66	18	5.2	20
JAN 1992												
14...	1500	111	312	7.8	4.0	13.5	108	--	77	21	5.9	25
FEB												
19...	1430	77	400	7.8	4.0	16.5	128	2.3	87	24	6.5	40
MAR												
23...	1345	228	295	8.0	4.0	15.0	116	2.7	71	20	5.2	28
APR												
21...	1400	191	300	7.8	10.0	12.5	112	3.0	78	22	5.7	23
MAY												
12...	0900	77	291	8.3	15.5	12.3	124	5.1	83	23	6.1	23
28...	1430	118	335	9.5	17.0	19.0	199	--	91	25	6.9	26
JUN												
11...	1400	431	195	7.8	21.0	9.5	108	1.8	54	15	3.9	14
24...	1500	126	315	7.8	19.5	--	--	2.7	91	25	6.9	24
JUL												
21...	0830	66	352	8.2	25.5	9.2	114	6.6	100	29	7.9	27
AUG												
27...	1245	56	350	9.2	23.5	10.5	125	2.2	100	28	7.5	28
SEP												
08...	1400	56	395	7.6	21.5	5.3	61	3.6	110	31	8.3	27
17...	0915	56	355	7.9	22.0	10.7	123	7.5	110	30	7.9	27

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT 1991												
30...	1.3	56	18	36	<0.10	6.1	146	0.020	0.010	0.500	0.490	0.05
NOV												
19...	1.6	79	22	55	0.10	2.9	200	0.010	<0.010	0.530	0.540	0.01
DEC												
17...	1.2	45	17	38	0.10	8.3	138	0.020	0.010	0.680	0.700	0.04
JAN 1992												
14...	1.2	55	18	47	0.20	6.7	162	0.010	0.010	0.860	0.880	0.03
FEB												
19...	1.7	55	20	72	<0.10	6.3	208	0.010	0.020	1.00	1.00	0.03
MAR												
23...	1.1	41	18	54	<0.10	6.0	160	0.010	0.020	0.630	0.660	0.03
APR												
21...	1.2	50	18	48	<0.10	5.5	157	0.020	0.020	0.700	0.710	0.06
MAY												
12...	1.2	50	19	45	<0.10	4.4	154	0.020	0.020	0.480	0.490	<0.01
28...	1.2	65	19	49	0.20	1.1	169	0.020	0.030	0.310	0.310	0.02
JUN												
11...	1.0	35	12	27	<0.10	7.2	103	0.010	0.010	0.440	0.440	0.05
24...	1.2	63	16	46	<0.10	8.8	168	0.030	0.020	0.580	0.590	0.11
JUL												
21...	1.6	77	18	54	<0.10	3.7	190	0.030	0.021	0.670	0.670	0.02
AUG												
27...	1.6	76	17	46	0.10	3.7	179	0.020	0.020	0.390	0.380	<0.01
SEP												
08...	1.7	79	20	54	0.10	5.7	199	0.040	0.030	0.680	0.710	0.36
17...	1.7	80	17	55	<0.10	0.80	190	0.020	0.020	0.480	0.500	<0.01

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
OCT 1991											
30...	0.040	0.60	<0.20	1.1	--	0.10	0.03	0.03	<0.01	3.2	1.6
NOV											
19...	0.010	0.60	<0.20	1.1	--	0.08	<0.01	0.04	0.02	3.0	2.4
DEC											
17...	0.030	0.20	<0.20	0.88	--	0.05	0.04	0.04	0.05	2.5	0.4
JAN 1992											
14...	0.020	0.20	<0.20	1.1	--	0.07	0.05	0.05	0.04	2.3	0.3
FEB											
19...	0.030	0.30	<0.20	1.3	--	0.10	0.05	0.06	0.05	2.7	--
MAR											
23...	0.030	<0.20	<0.20	--	--	0.05	0.03	0.04	0.02	2.2	0.3
APR											
21...	0.060	0.30	0.20	1.0	0.91	0.04	0.02	0.03	0.02	2.6	0.4
MAY											
12...	<0.010	<0.20	<0.20	--	--	0.03	0.01	0.03	0.01	2.8	0.9
28...	0.020	0.30	0.30	0.61	0.61	0.06	0.03	0.03	<0.01	3.2	1.5
JUN											
11...	0.040	0.50	<0.20	0.94	--	0.06	0.04	0.04	0.03	3.5	0.8
24...	0.100	0.60	0.20	1.2	0.79	0.07	<0.01	0.03	<0.01	2.9	1.0
JUL											
21...	0.021	0.20	<0.20	0.87	--	0.05	0.01	0.04	0.02	5.7	1.4
AUG											
27...	<0.010	0.60	0.20	0.99	0.58	0.05	<0.01	0.02	0.01	3.7	1.0
SEP											
08...	0.360	0.70	0.60	1.4	1.3	0.06	0.03	0.04	0.03	3.2	1.1
17...	<0.010	0.60	<0.20	1.1	--	0.06	0.02	<0.01	<0.01	3.3	1.5

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	259	251	254	302	298	300	217	210	212	329	323	326
2	263	251	255	302	300	301	224	217	221	336	329	333
3	267	255	263	305	302	304	237	223	229	335	333	334
4	271	259	266	307	305	306	233	188	207	333	329	331
5	271	259	262	309	307	308	188	170	177	336	329	331
6	278	271	274	314	309	311	173	168	171	339	335	337
7	294	275	281	315	313	314	186	174	178	337	335	336
8	314	294	307	318	314	315	196	186	192	335	332	334
9	314	310	314	322	318	320	210	197	203	333	324	329
10	314	310	313	325	323	324	231	210	219	326	319	323
11	314	308	310	331	325	328	240	233	236	318	312	316
12	310	307	308	344	331	335	243	240	242	312	310	311
13	308	304	305	348	345	347	245	243	245	311	308	310
14	304	301	302	353	349	351	247	244	245	311	306	307
15	302	301	302	356	353	355	248	245	246	307	304	306
16	302	300	301	363	356	358	250	246	249	311	306	309
17	306	300	302	372	365	369	256	250	252	309	307	307
18	306	291	299	378	372	375	263	256	259	313	309	310
19	290	282	286	378	375	376	265	263	264	314	312	313
20	282	268	276	378	375	376	267	265	266	313	309	310
21	268	264	267	377	371	376	270	268	269	311	308	309
22	274	266	269	375	365	371	278	271	275	316	310	312
23	274	262	268	372	249	320	283	278	281	317	315	316
24	275	268	271	246	186	211	290	283	286	341	317	325
25	277	268	272	185	174	177	293	290	292	340	306	322
26	280	271	275	183	177	179	303	292	297	304	283	294
27	286	278	280	187	182	185	309	303	306	282	270	275
28	286	282	284	193	187	191	312	309	311	270	267	268
29	287	284	285	202	193	198	315	312	313	267	264	265
30	292	287	289	211	202	206	318	315	316	266	264	265
31	298	292	295	---	---	---	324	317	321	268	266	267
MONTH	314	251	285	378	174	303	324	168	251	341	264	311

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	271	268	269	322	313	320	232	225	228	279	274	276
2	274	271	273	313	309	311	242	232	236	285	277	282
3	277	275	276	309	300	306	247	241	243	285	282	283
4	279	277	278	298	292	295	252	246	249	294	286	290
5	284	279	281	294	292	293	261	253	256	296	292	294
6	286	284	285	294	292	293	265	260	262	295	293	294
7	292	286	288	295	292	293	270	264	267	298	295	296
8	297	292	295	295	292	294	278	270	274	298	296	298
9	302	298	300	294	288	291	284	278	280	306	299	302
10	305	302	304	287	281	284	290	282	285	302	298	300
11	310	306	308	281	263	275	292	287	290	302	299	300
12	318	311	314	261	230	242	304	292	297	300	294	297
13	323	318	321	232	218	225	303	301	302	296	293	294
14	328	323	326	226	211	215	302	298	300	295	294	295
15	333	328	330	218	214	215	300	298	299	300	296	298
16	366	334	345	220	215	218	300	299	299	302	296	298
17	393	368	380	228	219	223	304	300	302	306	302	303
18	401	394	398	235	228	231	309	304	307	309	305	307
19	394	390	392	243	234	237	309	308	309	313	307	310
20	389	380	387	263	243	252	310	299	306	314	311	313
21	380	371	377	287	264	272	299	289	294	314	311	313
22	370	361	364	301	289	296	289	280	285	314	312	313
23	362	349	356	322	299	307	280	276	278	317	314	315
24	348	338	342	331	322	326	279	270	274	316	314	315
25	337	331	334	342	331	336	274	270	272	318	315	316
26	331	326	329	362	342	351	272	269	270	323	317	319
27	328	321	326	377	277	343	270	268	269	324	321	322
28	323	321	321	275	206	230	272	269	270	326	323	325
29	325	322	323	211	206	207	273	270	272	332	325	327
30	---	---	---	213	208	210	276	273	274	331	325	328
31	---	---	---	224	213	218	---	---	---	331	308	326
MONTH	401	268	325	377	206	271	310	225	278	332	274	305

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	300	195	236	316	313	315	333	328	330	368	367	367
2	196	178	184	315	311	314	329	325	327	369	367	368
3	185	176	179	313	311	312	326	321	324	370	344	364
4	187	180	183	311	308	310	326	319	322	368	353	361
5	196	186	189	317	310	314	323	320	321	374	357	363
6	198	146	167	316	313	314	325	322	324	374	369	371
7	146	140	143	318	314	315	328	324	325	371	369	370
8	161	148	153	329	318	321	335	329	331	376	370	373
9	175	161	168	329	324	326	339	332	335	373	368	371
10	188	175	182	331	325	329	355	340	348	379	368	374
11	199	187	192	339	331	336	358	349	353	371	363	366
12	215	198	205	342	338	340	352	344	347	365	363	364
13	228	214	222	346	340	343	347	341	344	368	365	367
14	236	225	231	351	343	347	344	336	340	378	365	368
15	240	232	237	349	340	346	341	339	340	369	364	367
16	251	240	246	354	341	344	341	340	340	368	363	365
17	270	251	260	364	351	359	341	336	338	370	363	366
18	277	267	272	365	363	364	336	334	335	373	364	368
19	284	274	279	368	364	366	337	333	335	374	369	370
20	294	282	288	367	367	367	340	335	338	372	368	370
21	297	285	293	367	365	366	342	338	341	374	370	372
22	307	297	303	367	365	366	344	340	342	381	373	377
23	310	307	308	367	365	366	347	342	344	380	377	379
24	315	308	311	366	363	365	351	345	348	381	379	380
25	314	310	312	365	363	364	350	347	348	382	380	381
26	325	312	318	365	360	364	349	347	348	387	381	383
27	322	314	317	361	359	360	352	349	351	387	383	385
28	328	323	325	359	354	356	360	352	355	383	382	382
29	329	321	327	355	349	354	364	360	363	383	380	381
30	324	314	319	348	343	345	365	362	364	380	377	379
31	---	---	---	345	331	343	367	365	366	---	---	---
MONTH	329	140	245	368	308	343	367	319	341	387	344	372

TEMPERATURE, WATER (DEG. C) WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	15.5	15.5	12.0	11.0	11.5	8.0	7.0	7.5	3.0	2.5	2.5
2	17.0	15.5	16.0	12.0	11.5	12.0	7.5	7.5	7.5	3.0	2.5	3.0
3	18.0	17.0	17.5	11.5	11.5	11.5	7.5	7.5	7.5	3.0	3.0	3.0
4	19.0	17.5	18.0	11.5	11.0	11.0	7.5	6.0	7.0	3.0	2.5	3.0
5	19.0	17.5	18.0	11.0	10.0	10.5	6.0	4.5	5.0	3.5	2.5	3.0
6	18.0	17.5	18.0	10.0	9.0	9.5	4.5	4.0	4.0	4.0	3.5	3.5
7	17.5	16.5	17.0	9.0	8.5	9.0	4.0	3.5	4.0	4.0	3.5	4.0
8	16.5	15.5	16.0	8.5	8.0	8.5	4.5	4.0	4.0	4.0	3.5	3.5
9	15.5	15.5	15.5	8.0	7.0	7.5	5.5	4.5	5.0	3.5	3.0	3.5
10	15.5	15.0	15.5	7.0	6.5	7.0	6.5	5.5	6.0	3.5	3.0	3.5
11	15.5	15.0	15.5	6.5	6.5	6.5	6.5	6.0	6.0	3.0	2.5	3.0
12	15.0	14.5	14.5	6.5	6.0	6.5	6.0	6.0	6.0	2.5	2.5	2.5
13	15.0	14.0	14.5	6.5	6.5	6.5	6.5	6.0	6.5	3.5	2.5	3.0
14	14.0	13.5	14.0	7.5	6.5	7.0	7.0	6.5	7.0	4.5	3.5	4.0
15	13.5	13.0	13.5	7.0	7.0	7.0	7.0	5.5	6.0	4.0	2.5	3.0
16	13.5	13.0	13.5	8.0	7.0	7.5	5.5	4.0	5.0	3.0	1.5	2.5
17	13.0	12.0	12.5	7.5	7.0	7.0	4.0	4.0	4.0	1.5	1.0	1.0
18	13.0	11.5	12.5	6.5	6.0	6.5	4.0	2.5	3.5	1.5	1.5	1.5
19	13.0	12.5	12.5	6.5	6.0	6.5	2.5	1.0	2.0	1.5	1.0	1.5
20	13.0	12.0	12.5	7.5	6.5	7.0	1.0	1.0	1.0	1.5	1.5	1.5
21	12.0	11.5	12.0	9.0	7.5	8.0	1.5	1.0	1.0	1.5	1.5	1.5
22	12.5	11.5	12.0	10.0	9.0	9.5	1.5	1.5	1.5	1.5	1.0	1.5
23	13.5	12.0	12.5	11.0	9.0	10.5	2.0	1.5	2.0	1.5	1.5	1.5
24	14.0	12.0	13.0	11.0	10.5	11.0	2.0	2.0	2.0	1.5	1.0	1.5
25	14.0	13.0	13.0	10.5	9.0	9.5	2.0	2.0	2.0	1.0	1.0	1.0
26	14.0	13.0	13.5	8.5	7.0	8.0	2.5	2.0	2.0	1.0	.5	1.0
27	14.5	13.5	14.0	7.0	6.5	6.5	3.0	2.5	2.5	.5	.5	.5
28	14.5	14.0	14.5	6.5	6.0	6.0	3.0	3.0	3.0	1.0	.5	.5
29	14.0	13.0	13.5	6.5	6.0	6.0	3.5	3.0	3.0	1.0	.5	1.0
30	13.0	12.0	12.5	7.0	6.0	6.5	3.0	2.5	3.0	1.5	1.0	1.5
31	11.5	11.0	11.5	---	---	---	2.5	2.0	2.5	2.0	1.5	2.0
MONTH	19.0	11.0	14.5	12.0	6.0	8.0	8.0	1.0	4.0	4.5	.5	2.0

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

TEMPERATURE, WATER (DEG. C) WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	2.0	2.0	3.0	3.0	3.0	7.5	7.0	7.0	16.0	14.0	14.5
2	2.5	2.0	2.0	3.5	3.0	3.5	7.5	7.0	7.0	16.5	14.0	15.0
3	2.5	2.0	2.0	4.0	3.5	3.5	7.0	6.5	7.0	18.0	16.5	17.0
4	2.5	2.0	2.0	4.5	3.5	4.0	7.5	6.5	7.0	17.5	16.0	17.0
5	2.5	2.0	2.0	5.5	4.0	4.5	8.0	7.0	7.5	16.0	15.5	16.0
6	2.5	2.0	2.0	5.5	5.0	5.5	8.5	7.0	7.5	16.5	15.0	15.5
7	2.5	2.5	2.5	6.0	5.5	6.0	9.0	8.0	8.5	16.0	14.5	15.0
8	2.5	2.5	2.5	7.0	5.5	6.0	10.5	9.0	9.5	15.0	14.5	14.5
9	2.0	2.0	2.0	8.5	7.0	7.5	10.0	10.0	10.0	15.5	14.5	14.5
10	2.0	1.5	2.0	8.5	8.0	8.0	12.0	10.0	11.0	16.0	15.0	15.5
11	2.5	2.0	2.5	9.0	7.5	8.5	11.5	10.5	11.0	17.5	15.0	16.0
12	2.5	2.0	2.5	7.5	6.0	6.5	10.5	10.0	10.5	19.0	15.5	17.0
13	2.5	2.5	2.5	6.0	5.0	5.0	10.0	9.0	9.5	19.5	17.5	18.5
14	3.0	2.5	2.5	5.0	4.0	4.5	11.0	9.5	10.0	21.0	18.5	19.5
15	2.5	2.5	2.5	4.5	3.5	4.0	12.5	11.0	11.5	20.0	19.0	19.5
16	2.5	2.0	2.0	3.5	3.0	3.5	11.5	10.5	11.0	19.0	17.5	18.5
17	2.5	2.0	2.0	3.5	3.0	3.5	10.5	10.0	10.0	18.0	17.0	17.5
18	3.0	2.5	3.0	4.0	3.0	3.5	10.0	9.0	9.5	19.0	17.0	18.0
19	3.5	3.0	3.0	4.0	3.5	3.5	9.0	8.5	9.0	19.5	17.0	18.0
20	3.5	3.0	3.5	4.0	3.0	3.5	9.0	8.5	9.0	19.5	17.0	18.0
21	4.0	3.5	3.5	4.5	4.0	4.0	10.5	9.0	9.5	23.5	17.5	20.0
22	4.0	3.5	4.0	4.5	4.0	4.0	12.0	10.5	11.0	24.0	20.0	22.0
23	4.5	4.0	4.0	4.0	3.5	4.0	15.0	12.0	13.5	23.5	21.5	22.0
24	4.5	4.0	4.0	4.0	3.5	4.0	15.5	14.5	14.5	23.0	21.5	22.0
25	4.0	4.0	4.0	5.5	4.0	4.5	15.5	14.0	14.5	21.5	19.0	20.5
26	4.0	3.5	4.0	6.0	5.0	5.5	15.0	13.5	14.0	19.0	18.0	18.5
27	4.0	3.5	4.0	6.5	6.0	6.5	15.0	13.5	14.0	18.0	17.5	17.5
28	4.5	4.0	4.0	6.0	5.0	5.5	14.5	13.5	14.0	19.0	17.0	18.0
29	4.5	3.0	3.5	6.0	4.5	5.0	14.0	13.5	13.5	19.5	17.0	18.0
30	---	---	---	6.0	5.5	5.5	14.0	13.5	14.0	19.0	17.0	18.0
31	---	---	---	7.0	6.0	6.5	---	---	---	18.0	17.0	17.5
MONTH	4.5	1.5	3.0	9.0	3.0	5.0	15.5	6.5	10.5	24.0	14.0	17.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	15.5	16.0	27.5	24.0	25.5	24.0	23.0	23.5	23.5	23.0	23.5
2	17.5	15.5	16.5	26.5	24.5	25.5	23.0	22.5	23.0	23.5	22.5	23.0
3	18.5	17.0	17.0	25.0	22.5	24.0	23.5	22.5	23.0	22.5	22.0	22.5
4	19.5	18.0	18.5	24.0	22.5	23.0	24.5	23.0	23.5	23.0	22.0	22.5
5	20.0	18.5	19.5	23.5	22.5	23.0	25.0	23.0	24.0	23.0	22.0	22.5
6	18.0	17.0	17.5	26.0	23.0	24.5	27.0	23.0	25.0	22.5	21.5	22.0
7	19.5	17.5	18.5	25.5	24.0	25.0	26.0	23.5	24.5	22.0	21.5	21.5
8	20.5	19.0	19.5	25.0	23.5	24.5	24.0	23.0	23.5	22.0	21.5	21.5
9	21.0	20.0	20.5	27.0	23.0	24.5	24.5	23.0	23.5	23.5	22.0	22.5
10	22.0	20.0	21.0	26.5	25.0	26.0	24.0	23.5	23.5	23.5	22.0	22.5
11	22.0	20.0	21.0	27.5	25.0	26.0	24.5	23.0	23.5	24.5	22.5	23.5
12	21.5	20.5	21.0	26.5	25.5	26.0	25.5	24.0	24.5	23.5	22.5	23.0
13	22.0	20.5	21.0	27.0	24.5	25.5	24.5	23.5	24.0	23.0	21.5	22.5
14	23.0	21.5	22.0	26.5	25.5	26.0	24.0	23.0	23.5	21.5	21.0	21.5
15	25.0	22.5	23.5	27.5	26.0	26.5	23.0	22.0	22.5	21.5	20.5	21.0
16	24.0	23.0	23.5	27.0	25.5	26.5	22.0	21.0	21.5	22.5	21.0	21.5
17	23.0	22.5	22.5	25.5	24.5	25.0	21.0	21.0	21.0	22.5	21.5	22.0
18	23.0	22.0	22.5	25.5	24.5	25.0	21.0	20.5	21.0	23.0	22.0	22.5
19	22.5	22.0	22.5	25.0	24.0	24.5	22.5	20.5	21.5	22.5	22.0	22.5
20	22.5	22.0	22.0	25.5	24.5	25.0	23.0	21.0	22.0	23.0	21.5	22.0
21	23.0	21.5	22.5	27.5	25.0	26.0	24.0	21.0	22.5	21.5	21.0	21.0
22	22.5	20.0	21.0	27.5	26.0	26.5	24.5	21.0	23.0	21.5	21.0	21.5
23	20.5	19.5	20.0	27.0	24.5	25.5	23.5	22.0	22.5	21.5	20.5	21.0
24	20.5	19.5	20.0	24.5	23.0	23.5	22.5	21.5	22.0	20.5	19.0	19.5
25	22.5	20.0	21.0	24.5	22.5	23.5	25.0	22.5	23.5	19.0	18.0	18.5
26	21.5	20.5	21.0	23.0	22.5	23.0	27.0	24.5	26.0	18.0	17.5	17.5
27	23.0	20.5	21.5	24.5	22.5	23.5	27.0	25.5	26.0	17.5	17.5	17.5
28	23.0	21.0	22.0	24.0	23.0	23.5	26.0	23.0	25.5	17.5	17.0	17.5
29	22.5	21.5	21.5	23.5	23.0	23.0	24.0	22.5	23.5	17.5	17.0	17.0
30	24.0	22.0	22.5	26.5	23.5	25.0	23.5	23.0	23.0	17.0	16.0	16.5
31	---	---	---	25.0	23.0	24.0	23.5	22.5	23.0	---	---	---
MONTH	25.0	15.5	20.5	27.5	22.5	25.0	27.0	20.5	23.5	24.5	16.0	21.0

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.6	9.3	9.5	10.6	10.2	10.4	11.6	11.3	11.5	13.1	12.8	12.9
2	9.4	9.1	9.3	10.5	10.2	10.3	11.5	11.3	11.4	12.9	12.7	12.8
3	9.3	8.9	9.1	10.7	10.2	10.4	11.4	11.3	11.3	12.9	12.6	12.7
4	9.2	8.8	9.0	10.9	10.3	10.6	11.9	11.3	11.5	12.6	12.5	12.6
5	9.0	8.7	8.8	11.3	10.5	10.9	12.5	12.0	12.3	12.6	12.3	12.5
6	9.0	8.8	8.9	11.6	10.8	11.2	12.6	12.5	12.5	12.4	12.1	12.2
7	9.3	9.0	9.2	11.8	11.1	11.4	12.7	12.5	12.6	12.4	12.1	12.2
8	9.5	9.1	9.3	12.0	11.2	11.6	12.6	12.1	12.4	12.6	12.2	12.4
9	9.7	9.0	9.3	12.4	11.6	11.9	12.2	11.9	12.0	12.5	12.3	12.4
10	9.7	9.1	9.4	12.3	11.7	11.9	12.0	11.8	11.9	12.4	12.2	12.3
11	9.5	9.0	9.2	12.2	11.7	11.9	12.0	11.8	11.9	12.7	12.3	12.5
12	9.8	9.2	9.5	12.5	11.9	12.1	12.1	11.7	11.9	12.9	12.5	12.6
13	10.1	9.6	9.8	12.4	11.9	12.1	11.8	11.6	11.7	12.5	12.2	12.4
14	10.2	9.6	9.8	12.4	11.9	12.1	11.6	11.4	11.5	12.2	11.7	11.9
15	9.9	9.5	9.7	12.3	11.8	12.0	12.0	11.5	11.8	12.5	11.9	12.3
16	10.2	9.7	9.9	12.1	11.7	11.9	12.5	12.0	12.2	12.8	12.3	12.5
17	10.3	10.0	10.1	12.4	11.8	12.0	12.6	12.4	12.5	13.0	12.7	12.8
18	10.5	10.0	10.3	12.5	12.0	12.2	12.8	12.4	12.5	12.9	12.7	12.8
19	10.3	10.0	10.2	12.5	12.0	12.2	13.5	12.9	13.2	13.1	12.8	13.0
20	10.4	10.2	10.3	12.5	11.7	12.1	13.7	13.4	13.5	13.0	12.8	12.9
21	10.6	10.2	10.4	11.8	11.3	11.6	13.4	13.0	13.2	13.1	12.9	12.9
22	10.6	10.2	10.4	11.6	11.2	11.3	13.1	12.9	13.0	13.2	12.9	13.0
23	10.6	10.1	10.3	11.6	10.6	11.0	12.9	12.7	12.8	13.0	12.6	12.8
24	10.5	10.1	10.2	10.6	10.5	10.5	12.9	12.7	12.8	12.9	12.7	12.8
25	10.3	10.0	10.2	11.2	10.7	11.0	13.1	12.8	12.9	13.1	13.0	13.0
26	10.3	9.8	10.0	11.7	11.2	11.5	13.1	12.8	13.0	13.2	13.0	13.1
27	10.3	9.5	9.8	12.0	11.7	11.9	13.0	12.8	12.9	13.3	13.1	13.2
28	10.1	9.5	9.8	12.1	11.9	12.0	12.9	12.6	12.8	13.3	13.1	13.2
29	10.5	10.0	10.2	12.0	11.8	11.9	12.6	12.4	12.5	13.2	12.9	13.1
30	10.6	10.2	10.3	11.8	11.6	11.8	12.9	12.5	12.7	13.0	12.6	12.8
31	10.7	10.3	10.5	---	---	---	13.2	12.8	13.0	12.7	12.5	12.6
MONTH	10.7	8.7	9.8	12.5	10.2	11.5	13.7	11.3	12.4	13.3	11.7	12.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.7	12.5	12.6	12.6	12.2	12.4	11.5	11.3	11.4	10.1	9.5	9.8
2	12.8	12.5	12.6	12.6	12.2	12.4	11.5	11.3	11.4	10.0	9.0	9.6
3	12.8	12.5	12.6	12.5	12.2	12.3	11.5	11.3	11.4	9.6	8.8	9.1
4	12.7	12.4	12.5	12.5	12.1	12.3	11.6	11.3	11.4	9.5	8.8	9.1
5	12.7	12.4	12.6	12.4	11.8	12.1	11.5	11.3	11.4	9.8	8.9	9.3
6	12.9	12.5	12.7	12.1	11.7	11.9	11.6	11.2	11.4	10.2	9.0	9.5
7	12.7	12.5	12.5	11.8	11.5	11.7	11.2	11.0	11.1	10.8	8.8	9.8
8	12.7	12.4	12.6	11.6	11.3	11.5	11.1	10.7	10.9	10.3	9.4	9.8
9	13.1	12.6	12.9	11.5	11.0	11.3	10.9	10.7	10.8	10.5	9.9	10.1
10	13.2	12.9	13.0	11.2	10.7	11.0	10.9	10.3	10.7	10.2	9.8	10.0
11	13.0	12.7	12.8	11.1	10.7	10.8	10.6	10.3	10.5	10.3	9.3	9.9
12	13.1	12.8	12.9	11.6	11.1	11.4	10.8	10.6	10.7	10.1	9.0	9.5
13	13.0	12.6	12.8	12.0	11.6	11.9	11.2	10.7	10.9	9.2	8.6	8.9
14	12.9	12.6	12.8	12.3	12.0	12.2	11.0	10.2	10.8	9.3	8.1	8.8
15	12.8	12.6	12.7	12.4	12.2	12.3	10.8	10.2	10.4	9.2	8.1	8.7
16	12.9	12.6	12.8	12.7	12.4	12.6	10.6	10.2	10.4	9.3	8.9	9.1
17	13.0	12.6	12.8	12.6	12.4	12.4	10.7	10.4	10.5	9.7	9.0	9.3
18	12.6	12.3	12.5	12.7	12.4	12.5	11.0	10.7	10.9	9.3	8.7	9.0
19	12.5	12.2	12.3	12.4	12.3	12.3	11.1	11.0	11.1	9.7	8.7	9.2
20	12.4	12.2	12.3	12.6	12.2	12.4	11.1	10.9	11.0	9.9	9.0	9.4
21	12.5	12.2	12.3	12.3	12.1	12.2	10.9	10.5	10.8	9.6	7.9	8.9
22	12.5	12.1	12.3	12.4	12.1	12.2	10.5	10.1	10.4	9.2	7.7	8.5
23	12.4	12.1	12.2	12.4	12.1	12.3	10.2	9.5	9.9	8.6	7.7	8.2
24	12.4	12.1	12.2	12.5	12.3	12.4	9.7	9.2	9.5	8.5	7.9	8.2
25	12.3	12.1	12.2	12.5	12.1	12.3	9.6	9.2	9.5	8.7	7.9	8.2
26	12.2	12.0	12.1	12.1	11.7	12.0	9.9	9.5	9.7	8.8	8.0	8.4
27	12.2	12.0	12.1	11.8	11.6	11.7	9.9	9.5	9.7	9.0	8.5	8.7
28	12.1	11.7	12.0	12.0	11.7	11.8	10.0	9.5	9.8	9.0	8.2	8.6
29	12.3	11.7	12.1	12.1	11.8	12.0	10.1	9.7	9.9	9.0	8.2	8.7
30	---	---	---	11.9	11.7	11.8	10.2	9.6	9.8	8.9	8.5	8.7
31	---	---	---	11.8	11.5	11.6	---	---	---	9.9	8.5	9.2
MONTH	13.2	11.7	12.5	12.7	10.7	12.0	11.6	9.2	10.6	10.8	7.7	9.1

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.8	9.7	9.7	8.0	7.1	7.6	8.3	7.8	8.1	7.9	6.8	7.2
2	9.8	9.3	9.6	7.9	7.2	7.5	8.4	7.7	8.0	7.9	6.8	7.2
3	9.6	9.0	9.4	7.9	7.2	7.6	8.4	7.5	7.9	8.1	7.0	7.4
4	9.2	8.9	9.1	8.1	7.7	7.9	8.0	7.3	7.6	8.3	8.0	8.1
5	9.2	8.8	9.0	8.1	7.4	7.8	7.9	7.1	7.6	8.2	7.8	8.0
6	9.6	9.3	9.4	7.9	7.2	7.6	7.8	6.6	7.2	8.4	7.7	8.0
7	9.5	9.0	9.3	8.0	7.2	7.6	7.3	6.6	6.9	8.1	7.7	7.9
8	9.1	8.8	8.9	8.2	7.2	7.7	7.4	6.6	7.0	8.1	7.4	7.7
9	8.9	8.6	8.7	8.2	7.3	7.7	7.8	6.7	7.5	8.2	7.2	7.7
10	8.9	8.6	8.8	7.9	7.1	7.5	7.9	7.6	7.7	8.0	7.0	7.4
11	9.0	8.7	8.9	7.9	6.9	7.4	8.0	7.4	7.7	8.0	7.4	7.7
12	9.0	8.7	8.9	7.8	6.9	7.2	8.0	7.4	7.7	8.1	7.5	7.7
13	9.0	8.5	8.8	7.9	6.9	7.4	8.1	7.4	7.7	8.1	7.5	7.8
14	8.9	8.3	8.6	8.0	6.9	7.4	8.0	7.4	7.7	8.3	7.4	7.8
15	8.6	8.1	8.3	7.5	7.0	7.2	8.0	7.6	7.7	8.4	7.5	7.9
16	8.7	8.1	8.4	7.6	7.3	7.5	7.9	7.6	7.7	8.3	7.4	7.8
17	8.7	8.3	8.5	7.8	7.4	7.6	8.0	7.7	7.9	8.2	7.4	7.7
18	8.5	8.0	8.3	7.8	7.5	7.6	8.1	7.9	8.0	8.0	7.4	7.6
19	8.3	8.0	8.1	7.9	7.4	7.7	8.1	7.7	7.9	8.0	7.2	7.6
20	8.4	8.1	8.3	7.7	7.0	7.5	8.1	7.6	7.8	8.1	7.5	7.8
21	8.5	8.1	8.3	7.4	6.5	7.0	8.2	7.3	7.8	8.4	7.5	7.8
22	8.8	8.2	8.5	7.4	6.4	6.8	8.1	7.2	7.7	8.0	7.5	7.6
23	9.2	8.6	8.9	7.6	6.3	6.9	8.0	7.2	7.6	8.3	7.6	8.0
24	9.0	8.6	8.7	7.8	7.6	7.7	8.5	7.3	7.8	8.8	8.1	8.4
25	9.1	8.4	8.8	7.8	7.5	7.6	7.9	6.8	7.4	9.0	8.4	8.7
26	8.9	8.4	8.7	7.9	7.6	7.7	7.0	6.2	6.7	8.9	8.6	8.7
27	8.7	8.4	8.6	8.0	7.6	7.8	7.2	6.3	6.8	8.7	8.5	8.6
28	8.9	8.4	8.6	8.1	7.6	7.8	7.5	6.7	7.0	8.8	8.5	8.6
29	8.7	8.2	8.5	8.3	7.6	7.9	7.8	7.2	7.4	9.0	8.4	8.6
30	8.5	7.8	8.2	8.2	7.2	7.7	7.7	7.1	7.4	9.2	8.4	8.7
31	---	---	---	8.1	7.2	7.5	7.7	6.9	7.3	---	---	---
MONTH	9.8	7.8	8.8	8.3	6.3	7.5	8.5	6.2	7.6	9.2	6.8	7.9

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ

LOCATION.--Lat 40°58'09", long 74°16'56", Passaic County, Hydrologic Unit 02030103, on left bank in Passaic Valley Water Commission pumping station, 800 ft below confluence of Pequannock and Ramapo Rivers, 100 ft upstream from bridge on Jackson Avenue (Pompton Plains Cross Road), and 0.7 mi east of Pompton Plains.

DRAINAGE AREA.--355 mi^2.

PERIOD OF RECORD.--March 1903 to December 1904, May 1940 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1202: 1945(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 160.00 ft above sea level. March 1903 to December 1904, nonrecording gage on main spillway of dam 2,000 ft upstream at different datum. May 1940 to September 1964 two water-stage recorders, each above a concrete dam about 2,000 ft upstream at datum 14.46 ft higher.

REMARKS.--No estimated daily discharges. Records good. Water diverted from reservoirs on Pequannock and Wanaque Rivers, from Pompton River to Point View Reservoir (no diversion this year), and from Ramapo River to Wanaque Reservoir and Oradell Reservoir (from February 1985) for municipal supply (see Hackensack River basin, diversions into and from and Passaic River basin, diversions). Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg and Echo Lake Reservoirs on Pequannock River and by Greenwood Lake, Monksville, and Wanaque Reserviors on Wanaque River (see Passaic River basin, reservoirs in). Several measurements of water temperature were made during the year. Satellite telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with Passaic Valley Water Commission.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	1645	*6,210	*14.75	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	129	200	156	154	168	819	186	2160	184	454	82
2	135	124	175	150	150	164	711	174	1330	164	196	77
3	129	110	794	159	158	160	618	192	995	151	146	189
4	115	105	1380	204	155	167	532	183	772	179	149	343
5	109	109	997	262	150	161	468	153	1020	168	146	180
6	231	106	729	232	148	150	417	136	6210	153	126	132
7	290	112	589	172	145	189	367	120	5120	148	111	120
8	126	98	475	167	146	305	327	128	2880	132	101	115
9	110	98	306	165	141	264	265	288	2130	231	281	106
10	104	95	404	159	145	175	268	256	1520	173	322	102
11	98	110	347	148	162	653	321	201	1120	139	225	180
12	110	124	283	164	151	783	311	169	877	122	235	146
13	115	132	261	136	142	569	259	150	670	148	178	117
14	99	130	237	226	152	609	169	141	526	137	166	101
15	109	120	206	277	180	511	154	134	441	167	155	94
16	147	115	174	203	425	429	147	187	292	295	145	92
17	195	108	170	166	208	378	182	177	241	206	168	105
18	277	102	169	175	159	351	330	149	203	168	245	113
19	212	98	159	152	162	388	418	138	265	145	253	124
20	162	96	195	148	161	388	369	134	344	126	186	112
21	114	104	172	142	148	341	300	136	283	114	148	92
22	108	382	171	139	150	318	294	134	227	102	130	93
23	121	1390	166	179	151	315	393	127	193	165	118	137
24	103	1210	161	630	150	301	312	155	222	260	105	132
25	110	743	151	545	178	289	391	167	250	167	99	125
26	104	446	152	306	292	373	360	167	201	169	95	157
27	102	332	146	212	347	2060	301	191	475	293	103	137
28	105	291	144	175	272	2170	263	175	398	192	118	143
29	139	262	190	156	223	1370	231	158	288	145	127	122
30	138	230	198	169	---	977	198	146	216	130	105	98
31	136	---	166	161	---	911	---	981	---	272	91	---
TOTAL	4298	7611	10067	6435	5305	16387	10495	5933	31869	5345	5227	3866
MEAN	139	254	325	208	183	529	350	191	1062	172	169	129
MAX	290	1390	1380	630	425	2170	819	981	6210	295	454	343
MIN	98	95	144	136	141	150	147	120	193	102	91	77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1992, BY WATER YEAR (WY)

MEAN	295	414	518	487	560	911	935	624	388	239	225	229
MAX	2369	1417	1543	1562	1654	2477	2995	2778	2177	1530	1520	1057
(WY)	1904	1956	1984	1979	1973	1983	1983	1989	1972	1945	1955	1971
MIN	40.2	52.3	34.8	39.2	149	118	62.7	110	62.9	34.2	34.2	46.7
(WY)	1981	1981	1981	1981	1969	1981	1985	1965	1965	1965	1966	1980

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1903 - 1992	
ANNUAL TOTAL	134777		112838			
ANNUAL MEAN	369		308		483	
HIGHEST ANNUAL MEAN					906	1952
LOWEST ANNUAL MEAN					117	1965
HIGHEST DAILY MEAN	3180	Mar 4	6210	Jun 6	28300	Oct 10 1903
LOWEST DAILY MEAN	52	Sep 13	77	Sep 2	.00	Aug 18 1904
ANNUAL SEVEN-DAY MINIMUM	56	Sep 8	100	Aug 27	1.7	Aug 14 1904
INSTANTANEOUS PEAK FLOW			6640	Jun 6	28300a	Oct 10 1903
INSTANTANEOUS PEAK STAGE			14.75	Jun 6	14.30b,c	Oct 10 1903
INSTANTANEOUS LOW FLOW			75	Sep 2	.00	Aug 18 1904
10 PERCENT EXCEEDS	870		536		1120	
50 PERCENT EXCEEDS	179		168		245	
90 PERCENT EXCEEDS	69		108		74	

a By computation of peak flow over dam, maximum observed.
b Site and datum then in use.
c Maximum stage at present site and datum was 24.47 ft, Apr. 6, 1984.

01388600 POMPTON RIVER AT PACKANACK LAKE, NJ

LOCATION.--Lat 40°56'36", long 74°16'47", Morris County, Hydrologic Unit 02030103, at bridge on State Highway 504 in Packanack Lake, and 2.2 mi downstream from confluence of Pequannock and Wanaque Rivers.

DRAINAGE AREA.--361 mi^2.

PERIOD OF RECORD.--Water years 1979 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
29...	1100	140	294	7.8	12.0	11.7	107	3.2	490	80
NOV										
19...	1100	100	357	9.2	6.0	16.8	135	4.2	--	--
DEC										
17...	1100	170	259	7.5	1.0	15.0	106	1.8	--	--
JAN 1992										
14...	1100	200	294	7.7	3.0	14.4	112	2.3	230	46
FEB										
19...	1100	170	332	7.6	1.5	15.9	115	2.4	--	--
MAR										
24...	1100	310	342	8.0	2.0	17.9	130	<1.0	<20	<10
APR										
24...	1200	310	263	7.5	14.5	11.6	116	--	--	--
MAY										
12...	1100	170	270	7.8	16.5	14.5	149	5.4	--	--
26...	1215	170	300	8.5	17.0	11.9	124	--	--	--
JUN										
11...	1115	1140	190	7.6	20.0	8.9	99	2.1	--	--
24...	1130	220	290	8.2	20.0	10.6	119	8.1	--	--
JUL										
22...	1200	110	346	8.0	24.0	8.5	101	E1.4	230	<100
AUG										
27...	1130	110	322	8.0	24.5	8.7	105	2.1	--	--
SEP										
08...	1100	120	326	7.8	21.5	9.5	108	E2.4	--	--
18...	1100	120	333	8.2	22.5	10.7	125	--	--	--

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 1991										
29...	83	23	6.3	23	1.6	57	21	35	0.1	6.3
NOV										
19...	100	28	7.5	28	1.8	72	24	52	0.1	3.6
DEC										
17...	70	19	5.5	20	1.4	47	20	37	0.1	8.4
JAN 1992										
14...	73	20	5.6	23	1.4	50	20	42	0.2	6.2
FEB										
19...	84	23	6.4	31	1.6	50	23	57	<0.1	6.6
MAR										
24...	73	20	5.5	36	1.2	45	20	64	<0.1	5.5
APR										
24...	69	19	5.3	21	1.2	44	21	39	0.2	5.5
MAY										
12...	76	21	5.8	21	1.3	49	22	38	<0.1	4.6
26...	80	22	6.2	23	1.5	54	22	41	0.1	4.1
JUN										
11...	54	15	4.0	14	0.90	33	14	27	<0.1	5.7
24...	87	24	6.5	22	1.5	57	19	41	<0.1	7.6
JUL										
22...	99	27	7.7	26	1.9	69	22	47	0.1	5.3
AUG										
27...	96	27	6.9	26	1.8	67	22	45	<0.1	4.8
SEP										
08...	98	27	7.4	24	1.7	68	17	33	<0.1	5.6
18...	94	26	7.1	25	1.6	68	21	48	0.1	2.9

01388600 POMPTON RIVER AT PACKANACK LAKE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
OCT 1991										
29...	154	0.04	0.05	0.75	0.74	0.14	0.14	0.70	0.40	1.5
NOV										
19...	192	0.04	0.05	0.80	0.83	0.09	0.09	0.80	0.30	1.6
DEC										
17...	144	0.02	0.02	0.81	0.81	0.17	0.15	0.60	0.30	1.4
JAN 1992										
14...	153	0.02	0.01	0.92	0.91	0.18	0.17	0.50	0.40	1.4
FEB										
19...	184	0.02	0.02	1.10	1.10	0.08	0.08	0.30	<0.20	1.4
MAR										
24...	182	0.02	0.01	0.74	0.72	0.03	0.03	0.20	<0.20	0.94
APR										
24...	142	0.02	0.01	0.69	0.69	0.03	0.03	0.40	<0.20	1.1
MAY										
12...	146	0.01	0.01	0.65	0.67	0.01	0.02	<0.20	<0.20	--
26...	156	0.02	0.02	0.73	0.73	0.01	0.01	0.40	0.20	1.1
JUN										
11...	102	<0.01	0.01	0.37	0.37	0.06	0.06	0.40	0.20	0.77
24...	159	0.02	0.02	0.74	0.72	0.03	<0.01	0.50	<0.20	1.2
JUL										
22...	183	0.03	0.02	1.10	1.00	0.06	0.04	0.40	0.30	1.5
AUG										
27...	178	0.02	0.02	0.91	0.90	0.02	0.03	0.40	<0.20	1.3
SEP										
08...	162	0.01	0.02	1.10	1.10	0.06	0.05	0.50	0.20	1.6
18...	176	0.01	0.01	0.81	0.80	0.02	0.02	0.50	0.30	1.3

DATE	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
29...	1.1	0.11	0.07	0.06	0.06	3.7	0.7	16	6.0
NOV									
19...	1.1	0.11	0.04	0.05	0.05	3.2	2.5	--	--
DEC									
17...	1.1	0.06	0.04	0.05	0.05	2.9	0.1	--	--
JAN 1992									
14...	1.3	0.12	0.05	0.05	0.04	2.7	--	5	2.7
FEB									
19...	--	0.07	0.04	0.02	0.04	2.8	--	--	--
MAR									
24...	--	0.06	0.03	0.03	0.02	2.5	0.3	10	8.4
APR									
24...	--	0.06	<0.01	0.02	0.01	2.6	0.7	--	--
MAY									
12...	--	0.03	<0.01	0.02	<0.01	3.0	--	--	--
26...	0.93	0.06	0.02	0.03	0.01	3.3	--	--	--
JUN									
11...	0.57	0.05	0.03	0.02	0.02	3.4	0.6	--	--
24...	--	0.07	<0.01	0.02	<0.01	2.8	1.0	--	--
JUL									
22...	1.3	0.07	0.04	0.04	0.02	3.0	0.8	8	2.4
AUG									
27...	--	0.08	0.06	0.04	0.03	3.2	0.6	--	--
SEP									
08...	1.3	0.08	0.05	0.03	0.04	3.0	--	--	--
18...	1.1	0.06	0.04	0.03	0.02	--	1.1	--	--

01388600 POMPTON RIVER AT PACKANACK LAKE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 29...	1100	14	1	<10	70	<1	<1	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 29...	200	2	80	<0.10	3	<1	<10

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ

LOCATION.--Lat 40°53'47", long 74°16'10", Passaic County, Hydrologic Unit 02030103, on right bank, in Two Bridges and 400 ft downstream from the Pompton River.

DRAINAGE AREA.--734 mi^2.

PERIOD OF RECORD.--Water years 1987 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1989 to current year.
WATER TEMPERATURE: August 1989 to current year.
DISSOLVED OXYGEN: August 1989 to current year.
Unpublished fragmentary water-quality records for the period March to July 1989 are available in the files of the district office.

INSTRUMENTATION.-- Three water-quality monitors are at the site; each measures the characteristics of water pumped from a single intake. Looking downstream, the "Left Intake" is 68 ft from the left bank, the "Middle Intake" is at midstream, and the "Right Intake" is 74 ft from the right bank. The distances are approximate values for low water conditions.

REMARKS.-- Interruptions in the daily record were due to malfunction of the pumps or instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,130 microsiemens from right intake, Jan.11, 1990; minimum, 123 microsiemens from left intake, Sept. 4, 1992.
WATER TEMPERATURE: Maximum, 29.5 °C from right and middle intakes, July 21, 1991; minimum, 0.0 °C from right intake, on several days during winters.
DISSOLVED OXYGEN: Maximum, 17.5 mg/l from left intake, Feb. 13, 1992; minimum, 1.3 mg/l from right intake, May 29, 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 929 microsiemens from right intake, Feb. 16; minimum, 123 microsiemens from left intake, Sept. 4.
WATER TEMPERATURE: Maximum, 27.0 °C from left intake, July 15; minimum, 0.0 °C from right intake, Jan. 18-20.
DISSOLVED OXYGEN: Maximum, 17.5 mg/l from left intake, Feb. 13; minimum recorded (more than 20% missing record), 2.7 mg/l from right intake, June 13,14, but may have been lower during period of equipment malfunction at right intake June 10-12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 1991												
30...	1020	181	600	7.7	12.5	7.0	66	3.0	150	37	13	59
NOV												
19...	1120	200	625	8.0	7.0	--	98	3.3	150	38	13	57
DEC												
17...	1130	400	402	7.8	3.0	11.2	84	1.8	96	24	8.7	32
JAN 1992												
14...	1200	590	--	7.7	5.5	13.2	112	--	97	26	7.8	31
FEB												
19...	1200	500	510	7.7	4.0	--	--	2.4	100	26	8.8	50
MAR												
23...	1145	830	520	7.9	4.0	13.7	106	2.7	97	26	7.9	58
APR												
21...	1200	830	360	7.6	10.0	11.3	100	5.7	94	25	7.7	29
MAY												
12...	1200	690	358	7.5	16.0	8.3	84	5.4	92	24	7.8	31
28...	1130	310	460	7.8	16.5	8.0	83	--	120	30	10	37
JUN												
24...	1145	570	380	7.8	--	--	98	2.6	100	27	8.4	31
JUL												
21...	1125	410	395	7.9	25.0	7.6	93	5.7	110	28	8.9	35
AUG												
27...	1100	330	520	8.1	24.5	9.9	120	3.3	130	34	11	45
SEP												
08...	1200	490	415	7.7	20.5	6.8	76	5.1	100	28	8.5	35
17...	1120	270	444	7.4	21.0	9.7	109	3.0	120	32	9.8	38

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT 1991												
30...	5.2	92	46	89	0.20	15	346	0.090	0.090	5.40	5.40	0.250
NOV												
19...	5.5	91	50	92	0.20	13	351	0.050	0.060	5.80	5.50	0.400
DEC												
17...	3.0	61	35	55	0.10	15	221	0.030	0.030	2.30	2.30	0.270
JAN 1992												
14...	2.6	60	33	52	0.20	10	211	0.020	0.020	2.40	2.40	0.270
FEB												
19...	2.6	50	31	94	<0.10	10	263	0.020	0.020	2.00	2.10	0.240
MAR												
23...	2.1	53	29	110	<0.10	7.0	281	0.030	0.020	1.80	1.90	0.080
APR												
21...	1.9	54	26	53	<0.10	8.7	194	0.030	0.020	2.10	2.10	0.130
MAY												
12...	2.4	59	26	46	<0.10	7.5	189	0.020	0.020	1.90	1.90	0.070
28...	3.3	72	31	63	0.20	9.5	245	0.050	0.050	3.50	3.60	0.180
JUN												
24...	2.5	63	26	51	0.20	13	208	0.040	0.030	2.50	2.40	0.090
JUL												
21...	3.1	71	28	59	<0.10	10	228	0.040	0.040	2.90	2.90	0.030
AUG												
27...	4.1	83	38	71	<0.10	11	284	0.020	0.020	4.20	4.30	<0.010
SEP												
08...	2.7	68	31	56	0.10	9.8	223	0.030	0.020	2.40	2.40	0.100
17...	3.4	80	33	64	<0.10	9.7	254	0.020	0.020	3.60	3.50	<0.010

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
OCT 1991											
30...	0.240	1.1	0.80	6.5	6.2	1.00	0.840	0.860	0.810	5.2	0.4
NOV											
19...	0.400	1.1	0.90	6.9	6.4	1.00	0.870	0.940	0.870	--	1.1
DEC											
17...	0.260	0.80	0.80	3.1	3.1	0.440	0.360	0.390	0.340	5.7	0.6
JAN 1992											
14...	0.260	0.80	0.50	3.2	2.9	0.500	0.350	0.390	0.340	3.9	0.4
FEB											
19...	0.240	0.70	0.80	2.7	2.9	0.350	0.280	0.240	0.280	5.7	--
MAR											
23...	0.080	0.40	0.30	2.2	2.2	0.280	0.200	0.210	0.180	3.6	0.4
APR											
21...	0.120	0.60	0.40	2.7	2.5	0.310	0.190	0.240	0.180	3.5	--
MAY											
12...	0.070	0.30	0.30	2.2	2.2	0.270	0.180	0.240	0.170	4.1	1.0
28...	0.180	0.70	0.70	4.2	4.3	0.520	0.430	0.490	0.420	5.7	1.2
JUN											
24...	0.080	1.0	0.30	3.5	2.7	0.420	0.210	0.270	0.200	3.4	1.5
JUL											
21...	0.020	0.40	0.30	3.3	3.2	0.390	0.330	0.340	0.300	4.5	1.4
AUG											
27...	<0.010	2.6	0.30	6.8	4.6	0.660	0.480	0.520	0.470	4.2	1.9
SEP											
08...	0.100	0.50	0.40	2.9	2.8	0.310	0.260	0.260	0.230	5.3	1.7
17...	<0.010	0.70	0.40	4.3	3.9	0.490	0.360	0.410	0.370	4.0	0.8

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), AT LEFT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	298	265	279	577	443	532	448	365	421	338	322	327
2	345	299	315	502	424	479	469	427	453	322	314	319
3	420	299	358	552	489	515	447	211	281	322	311	317
4	454	424	440	544	323	395	219	204	214	319	303	316
5	514	463	496	340	323	333	204	196	200	308	294	301
6	522	278	421	516	324	376	225	195	203	314	306	310
7	482	298	384	561	367	466	225	208	218	---	---	---
8	443	357	429	617	564	593	229	208	215	---	---	---
9	478	341	439	610	539	579	249	231	241	---	---	---
10	529	337	456	595	556	579	288	251	266	---	---	---
11	554	512	538	617	508	561	263	248	256	---	---	---
12	569	528	550	746	447	627	275	259	267	---	---	---
13	576	538	564	659	589	608	282	267	275	---	---	---
14	588	519	561	588	535	572	294	276	283	---	---	---
15	582	518	554	578	527	552	321	280	295	---	---	---
16	587	542	566	669	581	613	353	320	336	---	---	---
17	574	319	473	677	531	612	335	314	324	---	---	---
18	464	397	430	603	558	587	366	315	328	---	---	---
19	395	352	380	626	586	599	384	350	365	---	---	---
20	406	365	384	634	586	614	384	294	318	---	---	---
21	421	390	406	624	594	604	332	302	312	---	---	---
22	471	411	450	603	309	411	341	314	326	---	---	---
23	499	471	487	337	291	313	373	336	357	---	---	---
24	506	474	493	287	220	248	405	343	369	---	---	---
25	566	493	521	220	211	215	448	402	427	---	---	---
26	610	568	596	232	218	224	467	376	419	---	---	---
27	604	421	570	240	224	232	540	384	430	---	---	---
28	618	319	468	253	234	242	565	454	508	---	---	---
29	618	335	462	269	242	251	455	324	384	---	---	---
30	518	405	477	363	268	310	377	321	338	---	---	---
31	543	496	518	---	---	---	418	320	356	---	---	---
MONTH	618	265	467	746	211	461	565	195	322	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	405	374	387	---	---	---	286	277	281
2	---	---	---	406	395	401	---	---	---	287	275	281
3	---	---	---	440	403	421	---	---	---	290	279	284
4	---	---	---	440	314	400	---	---	---	291	279	284
5	---	---	---	314	304	309	---	---	---	305	285	294
6	---	---	---	313	301	307	---	---	---	307	293	300
7	---	---	---	310	302	305	---	---	---	345	295	311
8	313	300	307	303	281	288	---	---	---	317	301	310
9	321	305	313	289	282	285	---	---	---	298	264	277
10	381	311	329	297	283	291	291	287	289	291	268	284
11	450	373	412	291	255	271	290	281	285	293	285	289
12	602	413	509	265	250	259	289	282	287	295	282	289
13	623	537	587	251	242	249	299	289	294	301	288	294
14	568	504	535	241	232	235	311	296	305	315	296	306
15	590	421	552	236	231	233	318	304	310	320	308	313
16	453	350	382	243	236	238	318	304	311	310	286	300
17	649	397	568	247	243	245	313	302	308	285	275	280
18	618	485	541	252	247	249	301	291	294	299	279	290
19	506	460	477	346	251	276	296	294	295	310	293	301
20	492	464	482	358	313	339	299	296	297	315	302	307
21	508	472	493	311	299	305	300	294	298	318	304	310
22	472	461	467	301	293	296	296	289	294	528	307	370
23	478	461	469	399	303	339	288	260	270	561	518	543
24	481	467	473	399	362	380	278	269	273	530	317	476
25	479	445	463	358	346	349	275	262	268	504	311	368
26	444	416	428	352	344	347	270	262	267	507	321	409
27	413	335	375	346	298	317	274	269	271	333	315	325
28	384	363	373	---	---	---	278	274	276	353	329	338
29	379	362	369	---	---	---	280	274	278	410	352	381
30	---	---	---	---	---	---	283	274	278	451	407	430
31	---	---	---	---	---	---	---	---	---	422	213	320
MONTH	---	---	---	440	231	308	---	---	---	561	213	327

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), AT LEFT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	256	205	233	322	311	317	289	207	246	359	336	347
2	204	193	200	324	313	318	304	289	295	370	348	357
3	194	189	192	330	320	324	312	302	306	364	161	333
4	202	189	196	323	317	320	316	306	311	253	123	181
5	215	161	201	320	313	316	317	307	312	303	256	285
6	---	---	---	326	316	320	326	307	315	317	304	310
7	---	---	---	330	321	326	339	323	329	329	315	321
8	---	---	---	336	325	330	343	329	335	334	326	330
9	---	---	---	331	272	296	336	252	291	344	333	338
10	---	---	---	317	292	302	312	241	282	347	334	342
11	---	---	---	332	317	323	330	313	324	335	314	323
12	---	---	---	340	327	332	330	319	327	333	314	324
13	216	207	211	338	311	326	328	319	323	334	327	331
14	225	216	220	320	315	318	323	308	317	341	328	334
15	230	224	227	337	315	325	320	311	315	354	335	343
16	251	230	239	313	271	294	321	315	318	362	346	354
17	270	252	262	334	303	322	321	317	319	362	348	356
18	285	267	277	340	331	335	319	306	312	360	348	355
19	290	282	286	350	338	343	311	306	309	361	351	357
20	284	272	279	356	345	350	313	301	307	359	349	355
21	294	283	288	362	351	357	323	310	316	364	352	357
22	300	288	295	367	351	360	331	318	323	370	354	363
23	312	295	303	367	328	352	331	322	327	359	332	344
24	306	296	303	333	306	320	344	319	331	361	338	349
25	305	289	297	348	335	342	345	331	339	373	357	366
26	312	302	306	351	339	345	354	337	345	372	343	355
27	308	265	291	336	298	313	355	342	347	351	338	344
28	303	276	295	338	307	327	352	338	343	345	331	338
29	311	303	307	340	328	332	340	323	332	357	339	347
30	318	310	315	338	331	334	327	319	324	366	350	357
31	---	---	---	341	284	331	347	318	330	---	---	---
MONTH	---	---	---	367	271	327	355	207	318	373	123	337

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	294	260	274	623	580	603	---	---	---	443	396	412
2	339	295	310	619	562	583	---	---	---	400	380	391
3	413	342	370	672	611	632	---	---	---	407	390	398
4	447	417	433	684	414	521	---	---	---	427	351	396
5	506	455	489	446	371	413	---	---	---	434	322	391
6	514	463	507	653	399	517	---	---	---	356	324	343
7	541	431	491	664	610	637	---	---	---	344	308	319
8	435	412	425	696	644	670	---	---	---	351	325	335
9	490	424	461	696	623	657	---	---	---	391	353	372
10	522	478	504	657	616	641	---	---	---	418	379	395
11	550	518	534	719	644	676	---	---	---	434	410	420
12	567	526	548	740	666	722	---	---	---	444	431	439
13	574	542	563	654	585	603	423	405	413	464	436	450
14	585	536	566	584	532	568	441	413	426	470	441	456
15	577	537	551	574	523	548	446	422	434	467	392	436
16	583	538	562	666	575	609	446	400	415	406	377	393
17	570	410	482	678	654	667	411	382	394	374	354	365
18	463	394	437	689	670	679	462	397	423	423	370	382
19	394	350	378	675	649	663	461	433	447	---	---	---
20	404	363	382	681	646	664	492	422	480	533	451	500
21	419	387	403	665	645	655	532	495	517	539	520	532
22	467	408	447	653	387	600	555	519	539	542	518	532
23	495	468	484	352	294	324	581	553	570	553	518	533
24	501	470	489	290	235	253	561	541	551	668	532	579
25	563	489	518	275	236	255	573	524	559	693	497	571
26	605	564	591	---	---	---	545	519	532	490	401	451
27	600	541	584	---	---	---	589	505	540	398	367	380
28	614	422	532	---	---	---	589	538	573	445	402	427
29	629	564	601	---	---	---	533	511	520	454	428	443
30	642	616	628	---	---	---	550	480	518	475	451	462
31	622	604	615	---	---	---	509	451	477	494	471	482
MONTH	642	260	489	740	235	574	---	---	---	693	308	433

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	500	487	492	403	372	384	297	289	293	413	399	406
2	511	495	502	403	393	399	308	297	303	437	403	420
3	513	501	508	437	400	418	317	309	313	436	398	419
4	531	499	514	444	419	433	323	315	320	416	364	389
5	551	498	531	460	427	438	335	319	327	461	416	430
6	513	498	505	464	439	454	329	315	324	458	430	446
7	555	369	474	460	380	434	314	286	298	461	437	447
8	425	392	404	478	412	450	305	283	292	484	340	456
9	446	402	426	405	364	383	329	297	314	481	351	418
10	580	382	481	369	352	362	335	318	325	441	366	380
11	598	557	581	350	281	315	332	298	313	405	359	376
12	614	559	591	285	271	278	370	326	340	405	390	397
13	618	596	611	297	278	288	410	370	391	417	383	400
14	621	588	607	285	272	279	412	392	402	417	392	404
15	662	607	633	279	268	274	414	389	403	462	421	448
16	927	506	695	268	255	260	426	399	411	481	336	408
17	839	621	714	270	257	265	478	430	456	512	478	496
18	614	507	543	270	259	266	445	377	395	470	415	432
19	503	457	473	358	263	287	385	340	354	438	387	420
20	489	462	479	367	350	358	345	332	338	414	386	397
21	505	469	491	459	374	420	361	344	351	434	399	413
22	470	458	465	473	414	449	363	342	357	536	427	475
23	475	458	466	488	424	450	363	315	335	562	520	545
24	479	465	471	572	485	516	349	327	336	550	446	535
25	477	442	461	670	573	613	346	330	342	570	448	535
26	449	426	437	638	425	601	353	317	335	536	438	468
27	443	389	415	392	300	323	356	332	341	470	459	466
28	390	362	378	294	230	253	361	354	357	492	454	462
29	376	360	367	265	229	245	374	349	363	505	481	490
30	---	---	---	283	265	276	403	365	383	528	500	517
31	---	---	---	289	281	285	---	---	---	549	218	400
MONTH	927	360	507	670	229	370	478	283	347	570	218	442

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	258	209	235	369	354	360	357	212	283	443	383	406
2	213	207	209	376	353	363	277	244	259	493	431	460
3	240	209	225	383	365	371	315	246	274	498	172	408
4	272	240	257	536	366	437	345	318	332	282	155	209
5	285	166	258	559	410	482	342	325	334	246	180	221
6	---	---	---	422	391	406	360	342	350	302	226	254
7	---	---	---	402	384	392	390	363	375	386	306	358
8	---	---	---	407	374	391	407	389	396	439	385	408
9	---	---	---	492	305	391	410	271	310	422	388	411
10	---	---	---	457	301	353	332	271	308	416	382	406
11	---	---	---	289	281	283	357	334	347	451	346	397
12	---	---	---	333	283	302	357	338	346	451	376	405
13	198	182	190	350	332	336	356	347	351	460	395	434
14	218	198	207	409	355	380	368	330	348	426	387	407
15	242	219	230	437	343	415	379	364	370	449	406	427
16	263	243	255	389	317	348	387	359	370	462	406	438
17	294	264	280	373	336	344	399	355	378	480	436	453
18	332	293	314	365	333	349	426	391	408	479	418	449
19	342	323	334	384	367	373	431	349	390	453	368	415
20	396	334	365	395	380	385	363	343	351	389	359	371
21	352	323	336	421	395	405	391	355	365	498	385	427
22	337	328	333	447	407	425	394	356	375	564	464	514
23	372	333	347	429	367	401	382	362	371	568	503	541
24	375	338	361	479	395	436	406	366	384	563	389	466
25	433	367	400	398	344	369	449	388	414	421	374	400
26	394	329	369	404	351	391	475	425	449	607	367	439
27	393	274	314	346	310	324	575	452	506	642	454	551
28	317	286	303	366	332	354	576	399	519	455	419	435
29	338	317	323	386	365	373	447	395	420	433	384	403
30	355	335	342	401	376	389	452	386	422	451	423	437
31	---	---	---	409	291	382	417	384	397	---	---	---
MONTH	---	---	---	559	281	378	576	212	371	642	155	412

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), AT RIGHT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	490	447	471	453	418	427
2	---	---	---	---	---	---	470	447	457	439	418	425
3	---	---	---	---	---	---	464	372	439	472	442	458
4	---	---	---	---	---	---	347	227	272	490	429	467
5	---	---	---	---	---	---	224	212	216	438	324	394
6	---	---	---	---	---	---	224	212	219	358	326	345
7	---	---	---	690	675	680	255	225	239	346	310	321
8	---	---	---	714	692	700	275	256	268	354	326	337
9	---	---	---	700	649	674	293	268	279	395	358	378
10	---	---	---	665	639	654	370	286	305	418	383	397
11	---	---	---	723	666	692	448	388	409	434	410	420
12	---	---	---	745	673	727	425	397	415	444	431	439
13	---	---	---	660	589	607	424	407	415	464	436	450
14	---	---	---	588	535	571	444	415	428	470	441	456
15	---	---	---	579	526	551	448	424	436	467	392	436
16	---	---	---	670	580	613	447	402	417	406	377	393
17	---	---	---	683	658	672	413	384	396	374	354	365
18	---	---	---	693	674	684	465	400	426	423	370	382
19	---	---	---	680	655	667	464	436	450	---	---	---
20	---	---	---	685	653	668	496	462	487	533	451	500
21	---	---	---	669	649	659	535	498	520	539	520	532
22	---	---	---	658	609	631	558	522	542	542	518	532
23	---	---	---	595	315	445	584	557	572	553	518	533
24	---	---	---	310	262	283	564	544	554	668	532	579
25	---	---	---	289	267	276	576	528	562	693	497	571
26	---	---	---	304	279	289	547	522	535	490	401	451
27	---	---	---	335	302	314	593	508	542	398	367	380
28	---	---	---	386	336	354	592	542	577	445	402	427
29	---	---	---	422	389	408	537	514	525	454	428	443
30	---	---	---	467	428	453	554	483	521	475	451	462
31	---	---	---	---	---	---	519	458	484	494	471	482
MONTH	---	---	---	745	262	553	593	212	432	693	310	439

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	500	487	492	404	373	386	301	294	298	435	422	428
2	511	495	502	405	394	400	313	302	308	456	422	438
3	513	501	508	439	402	420	---	---	---	463	447	455
4	531	499	514	446	421	435	---	---	---	486	449	461
5	551	498	531	463	431	441	---	---	---	486	468	475
6	513	498	505	486	461	469	371	351	361	479	443	459
7	579	517	556	495	475	482	379	361	366	469	449	458
8	593	566	578	494	412	467	443	383	408	508	459	479
9	600	576	592	404	365	382	479	446	463	503	460	484
10	583	562	574	371	352	362	505	480	495	447	369	384
11	601	560	583	372	340	357	504	470	490	408	361	378
12	616	562	593	339	298	315	504	478	489	408	394	400
13	621	598	613	304	296	300	478	429	452	421	385	403
14	623	591	609	313	300	308	427	397	410	425	395	409
15	664	609	636	334	307	322	423	391	408	480	428	459
16	929	643	739	369	330	344	438	402	418	520	468	483
17	840	623	717	385	366	374	481	441	461	524	483	512
18	617	509	545	388	365	376	452	404	418	474	421	435
19	505	458	475	431	376	395	417	396	405	443	399	425
20	490	464	480	667	435	490	410	370	381	428	397	408
21	507	470	492	804	702	756	380	365	372	459	421	432
22	471	459	466	738	687	710	384	371	379	535	464	493
23	476	459	467	685	611	657	396	371	386	564	521	546
24	480	466	472	828	613	691	361	333	342	551	514	541
25	478	444	463	863	745	832	359	342	354	572	521	547
26	451	428	439	740	645	716	365	325	346	538	440	470
27	445	391	417	641	351	506	369	344	352	472	461	468
28	392	363	380	350	303	325	372	366	369	492	456	463
29	378	361	368	301	285	291	386	360	376	507	483	491
30	---	---	---	288	284	286	424	379	398	529	499	518
31	---	---	---	294	287	290	---	---	---	566	268	441
MONTH	929	361	528	863	284	448	505	294	396	572	268	459

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), AT RIGHT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	403	255	314	448	424	432	508	261	409	559	478	495
2	264	232	241	457	433	447	277	244	260	621	576	603
3	257	234	245	486	439	475	315	247	275	631	247	566
4	283	258	271	576	472	527	348	318	333	593	163	348
5	307	198	289	591	439	512	350	324	338	246	167	220
6	180	165	172	455	431	444	381	352	371	301	226	254
7	168	150	159	478	439	459	440	386	418	398	306	361
8	152	147	150	480	437	467	500	435	468	484	399	443
9	153	151	152	501	429	457	517	457	496	489	466	477
10	158	153	155	460	302	354	514	366	436	518	493	507
11	---	---	---	289	281	283	379	364	374	535	481	507
12	---	---	---	333	282	301	417	364	384	517	414	445
13	198	182	190	370	332	340	435	412	424	500	436	478
14	218	199	208	433	376	408	447	439	443	477	435	461
15	242	219	231	445	421	435	480	442	468	524	468	503
16	264	243	255	420	351	388	490	450	480	553	505	527
17	295	265	281	383	333	346	501	450	485	604	549	568
18	357	294	321	366	329	348	543	476	507	621	586	605
19	407	359	383	392	369	377	484	378	430	668	604	640
20	427	368	404	411	385	394	401	381	391	673	625	644
21	362	343	348	443	412	427	475	389	429	702	668	688
22	365	348	354	502	443	478	487	472	478	709	634	687
23	399	360	376	582	443	508	536	475	516	699	647	680
24	422	393	403	577	417	526	572	520	541	687	531	635
25	449	378	423	409	341	373	598	552	570	603	531	579
26	403	331	377	448	405	433	610	579	596	625	576	585
27	414	400	407	472	440	460	643	599	616	644	477	561
28	453	406	430	477	427	457	644	554	607	471	428	445
29	454	403	421	464	427	448	551	448	502	452	401	418
30	419	403	410	505	462	486	607	542	586	482	448	472
31	---	---	---	508	299	474	584	496	536	---	---	---
MONTH	454	147	299	591	281	428	644	244	457	709	163	513

WATER TEMPERATURE (DEG. C), AT LEFT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	13.0	13.5	12.0	11.5	11.5	9.0	8.0	8.5	2.0	1.5	2.0
2	15.5	13.5	14.5	13.0	12.0	12.5	10.0	9.0	9.5	3.0	2.0	2.5
3	17.0	15.5	16.5	13.5	12.0	12.5	9.5	7.5	8.0	4.5	3.0	3.5
4	18.5	17.0	17.5	12.0	11.0	11.5	7.5	6.5	7.0	5.0	4.5	5.0
5	19.5	18.0	18.5	11.0	9.5	10.0	6.5	4.5	5.0	5.5	5.0	5.5
6	19.0	18.0	19.0	9.5	8.0	9.0	4.5	4.0	4.5	5.0	4.5	4.5
7	18.0	16.5	17.0	8.5	8.0	8.0	4.5	4.0	4.5	---	---	---
8	16.5	14.5	15.5	8.0	7.5	7.5	5.5	4.0	4.5	---	---	---
9	15.5	14.0	15.0	7.5	7.0	7.0	7.0	5.5	6.0	---	---	---
10	15.5	14.0	14.5	7.0	6.5	6.5	7.0	6.5	7.0	---	---	---
11	14.5	14.0	14.0	7.0	6.5	7.0	6.5	6.0	6.0	---	---	---
12	15.0	13.5	14.0	7.5	6.5	7.0	7.0	6.0	6.5	---	---	---
13	14.5	13.0	13.5	8.0	7.0	7.5	8.0	7.0	7.5	---	---	---
14	14.0	12.5	13.0	8.5	7.0	7.5	8.5	8.0	8.0	---	---	---
15	13.0	12.0	12.5	8.5	7.5	8.0	8.0	6.0	7.0	---	---	---
16	13.5	12.0	12.5	9.0	8.0	8.5	6.0	4.5	5.5	---	---	---
17	13.5	12.5	13.0	8.5	7.5	8.0	4.0	3.5	3.5	---	---	---
18	13.5	12.5	13.0	8.0	7.0	7.5	3.5	2.5	3.0	---	---	---
19	13.5	12.5	13.0	8.0	6.5	7.5	2.5	1.0	2.0	---	---	---
20	13.0	12.5	12.5	9.0	7.5	8.0	2.0	1.0	1.5	---	---	---
21	12.0	11.0	12.0	11.0	9.0	10.0	2.5	2.0	2.0	---	---	---
22	12.0	11.0	11.5	11.5	10.5	11.0	3.5	2.5	3.0	---	---	---
23	12.0	11.0	11.5	11.5	10.5	10.5	4.0	3.0	3.5	---	---	---
24	13.0	11.5	12.5	11.0	10.5	11.0	4.0	3.0	3.5	---	---	---
25	14.5	12.5	13.5	10.5	8.5	9.5	3.5	2.5	3.0	---	---	---
26	15.5	14.0	14.5	8.5	7.5	7.5	3.5	2.5	2.5	---	---	---
27	16.5	15.0	15.5	7.0	6.0	6.5	3.0	2.0	2.5	---	---	---
28	16.5	15.0	15.5	6.5	6.0	6.5	3.0	1.5	2.5	---	---	---
29	15.0	12.5	14.0	7.5	6.5	7.0	4.0	2.5	3.5	---	---	---
30	13.0	11.5	12.0	8.0	7.0	7.5	4.5	4.0	4.0	---	---	---
31	11.5	11.0	11.5	---	---	---	4.0	2.0	3.0	---	---	---
MONTH	19.5	11.0	14.0	13.5	6.0	8.5	10.0	1.0	5.0	---	---	---

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

WATER TEMPERATURE (DEG. C), AT LEFT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	4.5	3.5	4.0	---	---	---	15.0	13.0	14.0
2	---	---	---	5.0	4.0	4.5	---	---	---	17.0	15.0	16.0
3	---	---	---	5.5	5.0	5.5	---	---	---	18.5	17.5	18.0
4	---	---	---	7.0	5.5	6.0	---	---	---	18.0	15.5	17.0
5	---	---	---	6.5	5.5	6.0	---	---	---	15.5	14.0	15.0
6	---	---	---	7.0	6.5	7.0	---	---	---	15.0	13.5	14.0
7	---	---	---	6.5	6.5	6.5	---	---	---	15.0	13.5	14.0
8	3.0	2.5	2.5	8.0	6.5	7.0	---	---	---	14.5	13.5	14.0
9	2.5	1.5	2.5	9.0	8.0	8.5	---	---	---	15.0	13.5	14.0
10	2.0	1.0	1.5	9.0	9.0	9.0	12.0	10.0	11.0	15.5	15.0	15.0
11	2.5	1.5	2.0	9.5	8.0	9.0	12.0	10.5	11.5	16.0	14.5	15.5
12	2.5	1.0	1.5	7.5	6.0	6.5	10.5	10.0	10.0	17.5	15.5	16.5
13	2.0	1.0	1.5	6.0	5.0	5.5	10.0	8.5	9.5	18.0	17.5	18.0
14	3.0	1.0	2.0	5.0	4.0	4.5	11.5	9.5	10.5	20.0	17.5	18.5
15	3.5	1.5	2.5	4.5	3.5	4.0	12.5	11.0	11.5	19.5	18.0	19.0
16	4.0	3.0	3.5	4.0	3.0	3.5	12.0	10.0	11.0	18.0	16.0	17.0
17	4.0	3.5	4.0	4.0	3.0	3.5	10.0	9.0	9.5	16.5	15.5	16.0
18	4.0	3.5	3.5	5.0	3.5	4.5	9.0	9.0	9.0	17.0	16.0	16.5
19	4.5	3.5	4.0	5.0	3.0	3.5	9.0	9.0	9.0	18.5	16.5	17.5
20	5.0	4.0	4.5	4.5	3.0	4.0	9.5	8.5	9.0	19.0	17.0	18.0
21	5.0	4.0	4.5	4.5	3.5	4.5	11.5	9.5	10.5	20.0	17.5	18.5
22	5.0	4.0	4.5	4.5	3.5	4.0	13.0	12.0	12.5	21.0	18.5	19.5
23	6.0	5.0	5.5	4.0	3.5	4.0	15.5	13.0	14.0	22.5	20.0	21.0
24	6.5	6.0	6.0	5.0	3.0	4.0	15.5	15.0	15.5	23.5	20.0	21.5
25	6.0	5.5	6.0	6.0	4.0	5.0	15.5	13.5	14.5	19.5	18.5	19.0
26	5.5	5.0	5.0	7.0	6.0	6.5	13.5	12.5	13.0	18.0	16.5	17.5
27	5.5	4.5	5.0	7.0	6.5	6.5	14.5	13.0	14.0	17.0	16.0	16.5
28	5.0	4.5	5.0	---	---	---	14.5	13.5	14.0	17.5	15.5	16.5
29	5.5	4.5	5.0	---	---	---	14.0	13.0	13.5	18.5	16.0	17.0
30	---	---	---	---	---	---	14.0	13.0	13.5	18.5	16.5	17.5
31	---	---	---	---	---	---	---	---	---	17.5	16.0	16.5
MONTH	---	---	---	9.5	3.0	5.5	---	---	---	23.5	13.0	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	16.0	16.0	24.0	23.0	23.5	22.5	21.5	22.0	23.0	21.0	22.0
2	17.5	15.5	16.5	24.5	23.5	23.5	22.5	21.5	22.0	22.0	20.5	21.5
3	18.5	17.0	18.0	23.5	21.5	23.0	23.0	22.5	22.5	21.5	21.0	21.5
4	20.0	18.0	19.0	22.0	21.0	21.5	23.5	22.5	23.0	22.0	20.5	21.5
5	19.5	18.0	19.0	22.5	21.5	22.0	23.0	22.0	22.5	22.0	21.5	22.0
6	---	---	---	24.0	22.5	23.0	23.5	22.0	22.5	21.5	20.5	21.0
7	---	---	---	24.0	23.0	23.5	24.5	22.0	23.0	20.5	20.5	20.5
8	---	---	---	24.5	23.0	23.5	23.5	22.0	22.5	22.0	20.5	21.0
9	---	---	---	24.0	23.0	23.5	22.5	22.0	22.0	23.0	21.5	22.0
10	---	---	---	24.5	23.5	24.0	23.5	22.0	22.5	24.0	22.5	23.0
11	---	---	---	26.0	24.5	25.0	24.0	23.0	23.5	23.0	22.0	22.5
12	---	---	---	25.5	24.0	25.0	23.5	23.0	23.5	22.0	20.5	21.5
13	21.0	20.0	20.5	25.5	23.5	24.5	23.5	22.5	22.5	21.5	20.0	20.5
14	21.0	20.0	20.5	26.0	24.5	25.0	22.5	22.0	22.0	21.0	19.0	20.0
15	21.0	20.5	21.0	27.0	25.0	26.0	22.0	20.5	21.5	21.0	19.0	20.0
16	22.0	20.5	21.0	25.5	24.5	25.0	20.5	19.5	20.0	22.0	19.5	20.5
17	22.5	21.5	22.0	24.5	23.0	24.0	19.5	19.5	19.5	22.5	20.5	21.5
18	22.0	21.0	21.5	24.0	23.0	23.5	21.0	19.5	20.0	23.0	21.0	22.0
19	21.0	20.5	20.5	24.5	23.5	23.5	21.5	20.5	21.0	22.5	21.0	22.0
20	21.5	20.0	20.5	25.0	23.5	24.5	21.5	20.5	21.0	21.5	20.0	20.5
21	21.5	20.5	21.0	26.0	24.0	25.0	22.0	20.5	21.0	20.5	19.0	20.0
22	21.5	19.5	20.0	26.0	24.0	24.5	22.5	21.0	21.5	21.5	20.0	20.5
23	20.0	18.5	19.0	24.5	22.0	23.5	23.5	21.0	22.0	21.5	19.5	20.5
24	20.0	19.5	19.5	22.0	21.5	21.5	23.5	21.0	22.0	19.5	17.5	18.5
25	20.0	19.0	19.5	23.0	21.5	22.0	24.0	21.5	23.0	17.5	16.5	17.0
26	21.0	20.0	20.5	22.5	21.5	22.5	25.0	23.0	24.0	17.0	16.5	16.5
27	21.5	20.5	21.0	22.5	21.5	22.0	25.0	23.5	24.5	17.5	17.0	17.0
28	22.5	20.5	21.5	24.0	22.0	23.0	26.0	24.0	25.0	18.0	17.0	17.5
29	23.0	21.5	22.5	24.0	22.5	23.0	25.0	23.0	24.0	18.0	16.5	17.5
30	23.0	22.0	22.5	24.5	23.0	23.5	23.5	22.0	22.5	16.5	15.5	16.0
31	---	---	---	23.5	22.5	23.0	23.5	21.5	22.5	---	---	---
MONTH	---	---	---	27.0	21.0	23.5	26.0	19.5	22.5	24.0	15.5	20.5

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

WATER TEMPERATURE (DEG. C), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	13.5	13.5	12.0	11.5	11.5	---	---	---	3.0	2.0	2.0
2	16.0	13.5	14.5	12.5	12.0	12.5	---	---	---	2.5	2.0	2.5
3	17.0	16.0	16.0	13.0	12.5	12.5	---	---	---	4.5	3.0	3.5
4	18.0	17.0	17.5	12.5	11.0	12.0	---	---	---	5.5	4.5	5.0
5	19.5	18.0	19.0	11.0	9.5	10.5	---	---	---	6.5	5.5	6.0
6	19.5	18.5	19.0	9.5	8.5	9.0	---	---	---	5.5	5.0	5.5
7	18.5	16.5	17.5	8.5	8.0	8.5	---	---	---	5.0	4.5	5.0
8	16.5	15.0	16.0	8.0	7.5	7.5	---	---	---	4.5	4.0	4.5
9	15.0	14.5	14.5	7.5	7.0	7.0	---	---	---	4.0	3.5	4.0
10	15.5	13.5	14.5	7.0	6.5	7.0	---	---	---	4.0	3.5	3.5
11	14.5	14.0	14.0	7.0	6.5	7.0	---	---	---	3.5	3.0	3.5
12	15.0	13.5	14.0	7.5	6.5	7.0	---	---	---	4.0	3.5	3.5
13	14.0	13.0	13.5	8.0	7.5	7.5	7.5	6.5	7.0	4.5	4.0	4.0
14	14.0	12.5	13.0	8.5	7.5	8.0	8.5	7.5	8.0	6.5	5.0	5.5
15	12.5	12.0	12.5	8.5	7.5	8.0	8.0	7.0	7.5	6.0	5.0	5.5
16	13.5	12.5	13.0	9.0	8.0	8.5	6.5	4.5	5.5	5.0	2.0	3.5
17	13.5	13.0	13.0	8.5	8.0	8.5	4.5	3.5	3.5	2.0	1.0	1.5
18	13.0	12.5	13.0	8.0	7.5	7.5	3.5	2.5	3.0	1.0	.5	.5
19	13.5	12.5	13.0	7.5	7.0	7.5	2.5	1.0	1.5	1.0	.5	.5
20	13.0	12.5	12.5	9.0	7.5	8.0	1.5	.5	1.0	.5	.5	.5
21	12.5	11.0	12.0	11.0	9.0	9.5	1.5	.5	1.0	1.0	.5	.5
22	12.0	11.0	11.5	12.5	11.0	11.5	3.0	2.0	2.5	1.5	.5	1.0
23	12.0	11.0	11.5	11.5	10.5	11.0	3.5	2.5	3.0	2.5	1.0	1.5
24	13.0	11.5	12.5	11.5	11.0	11.0	4.0	3.0	3.5	3.0	2.5	3.0
25	14.5	12.5	13.5	11.0	10.0	10.5	3.5	3.0	3.0	2.0	1.0	1.5
26	15.5	14.0	14.5	---	---	---	3.0	2.5	2.5	1.5	.5	1.0
27	16.5	15.0	15.5	---	---	---	3.0	2.0	2.5	1.0	.5	1.0
28	16.0	15.0	15.5	---	---	---	2.5	1.5	2.5	2.0	.5	1.5
29	15.0	13.5	14.5	---	---	---	3.5	2.5	3.0	2.5	1.5	2.0
30	13.5	12.0	12.5	---	---	---	4.5	3.5	4.0	3.0	2.0	2.5
31	12.0	11.5	11.5	---	---	---	4.0	3.0	3.5	3.5	3.0	3.0
MONTH	19.5	11.0	14.0	13.0	6.5	9.0	---	---	---	6.5	.5	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	2.5	3.0	4.5	3.5	4.0	8.5	7.0	8.0	15.0	13.5	14.5
2	2.5	2.0	2.5	5.5	4.0	4.5	8.0	7.0	7.5	17.5	15.0	16.0
3	2.0	1.5	1.5	5.5	5.5	5.5	7.5	6.5	7.0	18.5	17.5	18.0
4	2.5	1.5	2.0	6.0	5.5	6.0	8.0	6.5	7.5	18.5	16.5	17.5
5	3.0	2.0	2.0	7.0	6.0	6.5	8.5	7.0	8.0	16.5	14.5	15.5
6	2.5	2.0	2.0	7.5	7.0	7.5	9.5	7.5	8.5	15.0	13.5	14.5
7	2.5	2.0	2.0	7.5	7.0	7.5	10.0	8.5	9.0	14.5	13.5	14.0
8	3.0	2.5	2.5	8.5	7.0	7.5	11.5	9.0	10.0	14.0	13.5	14.0
9	3.0	1.5	2.5	9.5	8.0	9.0	11.0	10.0	10.5	15.0	13.5	14.0
10	2.5	1.0	1.5	9.5	9.0	9.0	12.5	10.0	11.0	15.5	14.5	15.0
11	2.0	.5	1.5	9.5	8.0	9.0	12.5	11.0	11.5	16.5	14.5	15.5
12	2.0	.5	1.5	8.0	6.0	7.0	11.0	10.5	10.5	17.5	15.5	16.5
13	2.0	1.0	1.5	6.0	5.0	5.5	10.5	9.5	10.0	18.0	17.0	17.5
14	2.5	.5	1.5	5.5	4.5	5.0	11.5	9.5	10.5	19.0	18.0	18.5
15	3.0	1.5	2.0	5.0	3.5	4.5	12.0	10.5	11.5	19.0	18.5	19.0
16	4.5	3.0	3.5	4.5	3.0	4.0	12.0	11.0	11.5	18.5	16.5	17.5
17	4.0	3.5	4.0	4.5	3.0	4.0	11.0	9.5	10.0	16.5	16.0	16.5
18	4.0	3.5	4.0	5.5	4.0	4.5	9.5	9.0	9.0	17.5	16.0	16.5
19	4.5	4.0	4.0	5.5	3.5	4.0	9.0	9.0	9.0	18.0	16.5	17.5
20	5.0	4.5	4.5	5.0	3.5	4.0	9.5	9.0	9.0	18.5	17.5	18.0
21	5.0	4.5	4.5	5.5	4.0	4.5	12.0	9.5	10.5	19.5	17.5	18.5
22	5.0	4.0	4.5	5.0	4.0	4.5	14.0	12.0	12.5	20.5	18.5	19.5
23	6.0	5.0	5.5	4.5	3.5	4.0	16.5	13.5	14.5	22.0	20.0	21.0
24	6.5	6.0	6.0	5.5	3.5	4.5	17.0	15.5	16.0	23.0	20.5	22.0
25	6.5	5.5	6.0	6.5	4.5	5.5	16.0	14.5	15.0	20.5	18.5	20.0
26	5.5	5.0	5.0	7.5	6.0	6.5	14.0	13.0	13.5	18.0	16.0	17.0
27	5.5	4.5	5.0	7.0	6.5	7.0	14.0	12.5	13.5	16.5	16.0	16.0
28	5.0	4.5	5.0	6.5	5.5	6.0	14.0	13.0	13.5	16.5	15.5	16.0
29	5.5	4.5	5.0	6.5	5.0	5.5	14.0	12.5	13.5	17.5	16.0	16.5
30	---	---	---	6.5	6.0	6.5	14.0	13.0	13.5	18.0	17.0	17.5
31	---	---	---	8.5	6.5	7.0	---	---	---	17.5	16.0	16.5
MONTH	6.5	.5	3.5	9.5	3.0	6.0	17.0	6.5	11.0	23.0	13.5	17.0

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

WATER TEMPERATURE (DEG. C), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	16.0	16.0	24.5	23.0	24.0	23.0	21.5	22.5	22.5	21.0	22.0
2	17.5	15.5	16.5	24.5	23.5	24.0	23.0	21.5	22.5	22.0	21.0	21.5
3	19.0	17.0	18.0	23.5	21.5	23.0	23.0	21.5	22.5	21.5	21.0	21.5
4	20.5	18.5	19.5	22.0	21.5	21.5	23.5	22.5	23.0	21.5	20.5	21.0
5	20.0	18.0	19.5	22.5	21.0	21.5	23.5	22.5	23.0	22.5	21.0	22.0
6	---	---	---	24.0	22.5	23.0	23.5	22.0	23.0	22.5	21.0	21.5
7	---	---	---	24.5	23.0	23.5	24.0	22.0	23.0	21.0	20.5	20.5
8	---	---	---	24.5	23.0	23.5	23.5	22.0	22.5	21.5	20.5	21.0
9	---	---	---	24.5	23.0	24.0	22.5	22.0	22.0	23.0	21.5	22.0
10	---	---	---	24.5	23.0	23.5	23.5	22.0	22.5	24.0	22.5	23.0
11	---	---	---	25.0	23.5	24.0	24.0	23.0	23.5	23.5	22.5	23.0
12	---	---	---	24.5	24.0	24.0	24.0	23.0	23.5	22.5	21.0	22.0
13	22.0	20.5	21.0	25.0	23.5	24.5	23.5	22.5	23.0	21.0	20.0	20.5
14	22.5	21.0	22.0	26.0	24.5	25.0	22.5	22.0	22.5	20.5	19.0	20.0
15	23.0	22.0	22.5	26.5	25.5	26.0	22.0	20.5	21.5	21.0	19.0	20.0
16	22.5	21.5	22.0	25.5	24.5	25.0	20.5	19.5	20.0	21.5	19.5	20.5
17	23.0	21.5	22.0	24.5	23.0	23.5	19.5	19.5	19.5	22.0	20.0	21.0
18	22.5	21.5	22.0	23.5	23.0	23.0	20.5	19.5	20.0	22.5	21.0	22.0
19	21.5	20.5	21.0	24.0	23.0	23.5	21.5	20.5	21.0	22.5	21.5	22.0
20	21.5	20.5	21.0	25.0	23.5	24.0	22.0	21.0	21.5	21.0	20.0	20.5
21	22.0	20.5	21.5	25.5	24.5	25.0	22.0	21.0	21.5	20.5	19.5	20.0
22	21.5	19.5	20.5	26.0	24.5	25.0	22.5	21.0	21.5	21.0	20.0	20.5
23	20.0	18.5	19.5	24.5	22.5	24.0	23.0	21.0	22.0	21.0	19.5	20.5
24	19.5	19.5	19.5	22.5	21.0	21.5	23.5	21.0	22.0	19.5	17.5	18.5
25	20.5	19.5	20.0	22.0	20.5	21.5	23.5	21.5	22.5	17.5	16.5	17.0
26	20.5	19.5	20.0	22.0	21.5	22.0	25.0	22.5	24.0	16.5	16.0	16.5
27	21.5	20.5	20.5	22.5	21.5	22.0	25.0	23.5	24.5	16.5	16.0	16.0
28	22.5	20.5	21.5	23.5	22.0	23.0	25.5	24.5	25.0	17.0	16.5	17.0
29	23.0	21.5	22.5	24.0	22.5	23.0	24.5	23.5	24.5	18.0	16.5	17.0
30	23.0	22.5	23.0	24.0	23.0	23.5	23.5	22.5	23.0	16.5	15.0	16.0
31	---	---	---	23.5	22.5	23.0	23.5	21.5	22.5	---	---	---
MONTH	---	---	---	26.5	20.5	23.5	25.5	19.5	22.5	24.0	15.0	20.0

WATER TEMPERATURE (DEG. C), AT RIGHT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	9.0	7.5	8.5	2.5	2.0	2.0
2	---	---	---	---	---	---	10.0	9.0	9.5	2.0	2.0	2.0
3	---	---	---	---	---	---	9.5	8.5	9.0	4.0	2.5	3.0
4	---	---	---	---	---	---	8.0	7.0	7.5	5.5	4.0	4.5
5	---	---	---	---	---	---	7.0	4.0	5.5	6.0	5.5	6.0
6	---	---	---	---	---	---	4.0	3.5	3.5	5.5	5.0	5.0
7	---	---	---	8.5	8.0	8.5	3.5	3.0	3.5	5.0	4.5	4.5
8	---	---	---	8.0	7.0	7.5	4.0	3.5	3.5	4.5	4.0	4.5
9	---	---	---	7.5	7.0	7.0	6.0	4.0	5.0	4.0	3.5	4.0
10	---	---	---	7.0	6.5	6.5	7.0	6.0	6.5	4.0	3.5	3.5
11	---	---	---	7.0	6.5	6.5	7.0	6.5	7.0	3.5	3.0	3.5
12	---	---	---	7.5	6.5	7.0	6.5	6.0	6.5	3.5	3.5	3.5
13	---	---	---	8.0	7.5	7.5	7.5	6.5	7.0	4.5	3.5	4.0
14	---	---	---	8.0	7.5	7.5	8.5	7.5	8.0	6.0	4.5	5.5
15	---	---	---	8.5	7.5	8.0	8.0	6.5	7.5	6.0	5.0	5.5
16	---	---	---	9.0	8.0	8.5	6.5	4.5	5.5	5.0	2.0	3.5
17	---	---	---	8.5	8.0	8.0	4.5	3.0	3.5	2.0	1.0	1.0
18	---	---	---	8.0	7.0	7.5	3.5	2.0	2.5	1.0	.0	.5
19	---	---	---	7.5	7.0	7.0	2.0	.5	1.5	.5	.0	.5
20	---	---	---	9.0	7.5	8.0	1.0	.5	.5	.5	.0	.5
21	---	---	---	11.0	9.0	9.5	1.5	.5	1.0	.5	.5	.5
22	---	---	---	12.5	11.0	11.5	2.5	1.5	2.5	.5	.5	.5
23	---	---	---	13.5	12.5	13.0	3.0	2.5	3.0	1.0	.5	1.0
24	---	---	---	13.0	12.5	13.0	3.5	3.0	3.5	3.5	1.0	3.0
25	---	---	---	12.0	9.5	11.0	3.5	2.5	3.0	3.0	1.0	2.0
26	---	---	---	9.5	7.0	8.5	3.0	2.0	2.5	1.0	.5	1.0
27	---	---	---	7.0	5.5	6.0	2.5	2.0	2.0	1.0	.5	.5
28	---	---	---	5.5	5.0	5.5	2.5	1.5	2.0	1.5	.5	1.0
29	---	---	---	6.0	5.5	6.0	3.5	2.5	3.0	2.0	1.5	2.0
30	---	---	---	7.5	6.5	7.0	4.5	3.0	4.0	2.5	2.0	2.0
31	---	---	---	---	---	---	4.0	3.0	3.0	3.0	3.0	3.0
MONTH	---	---	---	13.5	5.0	8.0	10.0	.5	4.5	6.0	.0	2.5

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

WATER TEMPERATURE (DEG. C), AT RIGHT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	2.5	3.0	4.5	3.5	4.0	8.5	7.0	8.0	15.0	13.5	14.5
2	2.5	2.0	2.0	5.5	4.0	4.5	8.5	7.0	7.5	17.5	15.0	16.0
3	2.0	1.0	1.5	5.5	5.5	5.5	---	---	---	19.0	17.5	18.0
4	1.5	1.0	1.5	6.0	5.5	6.0	---	---	---	19.0	17.0	18.0
5	2.0	1.5	2.0	7.0	6.0	6.5	---	---	---	17.0	14.5	16.0
6	2.0	1.5	2.0	7.5	7.0	7.5	10.5	8.0	9.0	14.5	13.5	14.0
7	2.0	1.5	2.0	7.5	7.0	7.5	10.0	8.5	9.5	14.0	13.5	14.0
8	2.5	2.0	2.0	8.5	7.0	7.5	11.5	10.0	11.0	14.0	13.5	14.0
9	2.5	1.5	2.0	9.5	8.0	9.0	11.5	11.5	11.5	14.5	13.5	14.0
10	2.0	1.0	1.5	9.5	9.0	9.0	13.0	11.5	12.0	15.5	14.5	15.0
11	1.5	.5	1.0	9.5	9.0	9.5	13.0	12.0	12.5	16.5	14.5	15.5
12	2.0	.5	1.0	8.5	6.0	7.5	12.0	11.0	11.5	17.5	15.0	16.5
13	2.0	1.0	1.5	6.0	5.0	5.5	11.0	10.0	10.5	18.0	16.5	17.5
14	2.0	.5	1.5	5.5	4.5	5.0	11.5	9.5	10.5	19.0	18.0	18.5
15	3.0	1.5	2.0	5.0	3.5	4.5	12.0	10.5	11.5	19.0	19.0	19.0
16	4.5	3.0	3.5	4.5	3.0	4.0	12.0	11.0	11.5	18.5	16.5	18.0
17	4.0	3.5	4.0	4.5	3.0	4.0	11.0	9.5	10.0	16.5	16.0	16.5
18	4.0	3.5	4.0	5.5	4.0	4.5	9.5	9.0	9.0	17.5	16.0	16.5
19	4.5	4.0	4.0	5.5	4.0	4.5	9.0	8.5	9.0	18.0	16.5	17.5
20	5.0	4.5	4.5	4.5	4.0	4.0	9.5	9.0	9.0	18.5	17.5	18.0
21	5.0	4.5	4.5	5.5	4.0	4.5	12.0	9.5	10.5	19.5	17.5	18.5
22	5.0	4.0	4.5	5.5	4.0	4.5	14.0	12.0	12.5	21.0	18.5	19.5
23	6.0	5.0	5.5	4.5	3.5	4.0	16.5	14.0	15.0	22.5	20.0	21.0
24	6.5	6.0	6.0	5.0	3.5	4.5	17.0	15.5	16.0	23.0	20.5	22.0
25	6.5	5.5	6.0	6.5	4.0	5.0	16.5	14.5	15.5	20.5	18.5	20.0
26	5.5	5.0	5.0	7.5	6.0	6.5	14.5	13.0	13.5	18.5	16.0	17.0
27	5.5	4.5	5.0	7.5	7.0	7.5	14.0	12.5	13.5	16.5	16.0	16.0
28	5.5	4.5	5.0	7.5	6.0	6.5	14.0	13.0	13.5	17.0	15.0	16.0
29	5.0	4.5	5.0	7.0	5.0	6.0	14.0	12.5	13.5	18.0	15.5	16.5
30	---	---	---	7.0	6.0	6.5	14.0	13.0	13.5	18.0	17.0	17.5
31	---	---	---	8.5	6.5	7.5	---	---	---	17.5	16.0	17.0
MONTH	6.5	.5	3.0	9.5	3.0	6.0	17.0	7.0	11.5	23.0	13.5	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	16.0	16.0	25.0	23.5	24.5	23.5	22.5	23.0	23.0	21.5	22.5
2	17.5	16.5	17.0	25.5	24.0	24.5	23.0	21.5	22.5	22.5	21.5	22.0
3	19.0	17.0	18.0	24.5	22.5	23.5	23.5	21.5	22.5	22.0	21.0	21.5
4	20.5	18.5	19.5	22.5	21.5	22.0	23.5	22.5	23.0	21.5	20.5	21.0
5	20.0	18.0	20.0	22.5	21.0	21.5	23.5	22.5	23.0	23.0	21.5	22.0
6	18.5	17.5	18.0	24.0	22.5	23.0	24.0	22.5	23.0	22.5	21.0	22.0
7	19.5	18.0	18.5	24.5	23.5	24.0	24.0	22.5	23.0	21.0	20.5	21.0
8	20.5	19.5	20.0	25.0	23.5	24.0	23.5	22.5	23.0	22.0	21.0	21.5
9	21.0	20.5	20.5	25.0	23.0	24.0	23.5	22.0	22.5	23.0	21.5	22.5
10	21.0	20.0	20.5	24.5	23.0	24.0	23.5	22.0	23.0	24.0	23.0	23.5
11	---	---	---	25.0	23.5	24.0	24.0	23.0	23.5	24.0	23.5	23.5
12	---	---	---	24.5	24.0	24.0	25.0	24.0	24.5	23.5	21.5	22.0
13	22.0	20.5	21.0	25.0	24.0	24.5	24.0	23.0	23.5	21.5	20.0	21.0
14	22.5	21.0	22.0	26.0	24.5	25.5	23.0	22.5	23.0	20.5	19.5	20.0
15	23.0	22.0	22.5	26.5	25.5	26.0	22.5	21.0	21.5	20.5	19.0	20.0
16	22.5	21.5	22.0	26.0	24.5	25.5	21.0	20.0	20.5	21.5	19.5	20.5
17	23.0	21.5	22.0	24.5	23.0	24.0	20.0	19.5	19.5	21.5	20.0	21.0
18	22.5	21.5	22.0	23.5	23.0	23.5	20.5	19.5	20.0	22.5	21.0	22.0
19	22.0	21.0	21.5	24.0	23.0	23.5	22.0	20.5	21.0	22.5	22.0	22.0
20	21.5	20.5	21.0	25.0	23.5	24.5	22.5	21.5	22.0	22.0	21.0	21.5
21	22.0	20.5	21.5	26.0	25.0	25.5	22.5	21.5	22.0	21.0	20.5	20.5
22	22.0	20.0	20.5	26.0	25.0	25.5	22.5	21.0	22.0	21.0	20.5	20.5
23	20.0	19.0	19.5	25.0	23.5	24.5	23.0	21.0	22.0	20.5	20.0	20.5
24	19.5	19.0	19.5	23.5	21.0	22.0	23.0	21.5	22.0	20.0	18.5	19.5
25	20.5	19.5	20.0	22.0	20.5	21.0	23.5	22.0	23.0	18.0	16.5	17.5
26	20.5	19.5	20.0	21.5	21.5	21.5	24.5	23.0	24.0	16.5	16.0	16.5
27	21.0	20.0	20.5	22.5	21.5	22.0	25.5	24.0	24.5	16.5	16.0	16.0
28	22.5	20.5	21.5	23.5	22.0	22.5	26.0	24.5	25.0	17.5	16.5	17.0
29	23.5	22.0	22.5	24.0	22.5	23.0	25.0	24.0	24.5	17.5	17.0	17.5
30	24.0	23.0	23.5	24.5	23.0	23.5	24.0	23.0	23.5	17.0	15.5	16.0
31	---	---	---	24.0	22.5	23.5	24.0	22.5	23.0	---	---	---
MONTH	24.0	16.0	20.5	26.5	20.5	23.5	26.0	19.5	22.5	24.0	15.5	20.5

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

OXYGEN, DISSOLVED (MG/L), AT LEFT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.9	6.6	6.8	8.4	6.8	7.5	9.6	8.7	9.1	12.7	12.2	12.6
2	7.1	6.7	6.9	8.3	7.0	7.5	8.7	7.5	8.0	13.0	12.3	12.7
3	8.6	6.4	7.2	7.9	6.6	7.2	10.5	7.7	9.7	12.6	12.0	12.3
4	6.8	6.1	6.3	11.0	7.0	9.1	11.1	10.5	10.8	12.3	10.8	11.6
5	7.0	5.7	6.3	11.7	9.1	10.2	12.0	11.1	11.6	11.9	10.6	11.0
6	7.7	5.7	6.6	12.2	9.2	10.5	12.2	11.9	12.0	12.2	11.3	11.7
7	9.1	5.6	7.1	11.8	9.0	10.1	12.2	11.8	12.0	---	---	---
8	8.3	5.5	6.3	10.3	8.8	9.6	12.1	11.9	12.0	---	---	---
9	9.5	6.4	7.6	11.0	9.0	9.9	11.9	11.1	11.4	---	---	---
10	9.3	6.8	8.2	10.7	9.4	10.1	11.2	10.6	10.9	---	---	---
11	7.6	6.4	7.0	11.9	9.5	10.6	11.7	11.1	11.3	---	---	---
12	7.7	6.3	6.8	11.0	8.5	9.8	11.2	10.9	11.1	---	---	---
13	8.2	6.3	6.8	8.5	7.2	7.9	11.2	10.5	10.7	---	---	---
14	8.5	6.3	6.9	8.5	6.7	7.5	10.4	9.8	10.0	---	---	---
15	8.0	6.4	7.2	7.8	6.7	7.1	10.3	9.9	10.1	---	---	---
16	8.0	6.9	7.3	9.1	6.7	7.7	10.8	10.0	10.4	---	---	---
17	8.5	6.4	6.9	12.6	7.5	9.7	11.2	10.8	11.0	---	---	---
18	7.5	7.0	7.3	12.0	9.2	10.6	11.6	11.1	11.3	---	---	---
19	7.5	7.0	7.3	11.7	9.7	10.7	11.6	11.1	11.3	---	---	---
20	7.6	6.9	7.2	11.8	9.2	10.5	12.6	11.3	12.2	---	---	---
21	8.1	7.1	7.5	10.6	9.4	10.0	12.7	11.6	12.3	---	---	---
22	8.4	7.6	7.9	10.5	9.0	9.7	12.1	11.6	11.8	---	---	---
23	8.6	7.6	8.0	10.8	9.1	10.0	11.8	11.2	11.5	---	---	---
24	8.3	7.0	7.6	10.2	9.9	10.0	11.7	11.0	11.3	---	---	---
25	7.9	6.4	7.1	10.5	9.9	10.2	11.5	10.7	11.0	---	---	---
26	7.2	5.8	6.4	10.9	10.3	10.5	12.0	10.6	11.2	---	---	---
27	7.6	5.7	6.3	11.3	10.7	11.0	12.3	10.9	11.5	---	---	---
28	8.7	5.1	6.9	11.3	10.9	11.2	11.9	10.8	11.3	---	---	---
29	9.7	4.9	7.3	11.2	10.8	11.0	12.3	11.2	11.5	---	---	---
30	8.7	6.5	7.6	10.8	9.6	10.2	11.5	10.6	11.2	---	---	---
31	8.6	6.7	7.6	---	---	---	12.1	10.5	11.3	---	---	---
MONTH	9.7	4.9	7.1	12.6	6.6	9.6	12.7	7.5	11.1	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	13.0	11.5	12.3	---	---	---	10.9	9.8	10.2
2	---	---	---	13.4	12.4	12.9	---	---	---	11.2	9.5	10.3
3	---	---	---	13.2	11.9	12.5	---	---	---	11.2	9.4	10.2
4	---	---	---	---	---	---	---	---	---	10.4	9.1	9.8
5	---	---	---	---	---	---	---	---	---	10.6	9.3	9.9
6	---	---	---	---	---	---	---	---	---	11.5	9.7	10.5
7	---	---	---	---	---	---	---	---	---	12.0	10.5	11.1
8	14.7	13.3	14.0	---	---	---	---	---	---	11.0	9.2	10.3
9	14.6	13.5	14.0	---	---	---	---	---	---	9.8	8.6	9.1
10	15.6	13.7	14.6	---	---	---	12.2	10.0	11.2	9.6	8.6	9.2
11	16.3	13.8	14.9	11.2	9.4	10.2	12.3	8.9	10.1	10.1	9.0	9.5
12	17.4	14.3	15.5	12.5	9.8	11.3	11.5	9.1	10.0	9.6	9.0	9.4
13	17.5	14.6	15.7	13.4	11.4	12.3	12.4	10.4	11.2	8.9	7.9	8.4
14	17.1	14.1	15.4	13.6	12.0	12.8	12.6	10.9	11.6	9.5	7.6	8.5
15	16.5	13.0	15.0	14.2	12.1	13.2	12.2	10.3	11.3	9.1	7.6	8.4
16	13.5	12.1	12.9	14.5	12.3	13.4	11.8	8.6	10.4	7.6	6.7	7.2
17	13.0	11.7	12.3	14.2	12.5	13.4	9.6	8.6	9.1	7.9	7.0	7.5
18	12.3	11.6	11.9	14.8	12.2	13.6	10.7	9.6	10.1	8.6	7.9	8.2
19	11.9	11.3	11.6	14.3	12.0	13.1	11.0	9.7	10.3	9.4	7.8	8.5
20	12.0	11.1	11.7	14.8	12.4	13.6	11.0	10.0	10.5	11.4	8.4	9.7
21	12.9	11.4	12.2	14.4	12.2	13.5	10.9	9.7	10.1	13.0	9.6	11.2
22	13.1	12.1	12.7	14.0	12.1	13.2	10.4	8.9	9.5	13.0	6.3	10.3
23	13.5	12.5	13.1	14.5	11.9	13.3	9.9	8.5	9.2	6.6	5.5	6.0
24	13.4	12.2	12.7	14.9	12.4	13.7	9.8	8.4	9.0	10.0	5.9	8.0
25	12.4	11.2	11.6	14.9	12.6	13.8	9.4	7.8	8.7	8.0	5.5	6.9
26	12.1	11.2	11.7	14.6	11.8	12.8	10.4	8.8	9.5	9.4	3.3	6.3
27	12.9	11.5	12.2	12.0	10.2	10.8	10.2	9.0	9.7	11.4	8.5	9.8
28	12.6	11.7	12.0	---	---	---	10.1	8.8	9.5	13.2	9.4	11.3
29	12.5	11.4	12.0	---	---	---	10.2	9.3	9.8	12.2	9.7	11.0
30	---	---	---	---	---	---	10.2	9.6	10.0	11.5	8.8	10.0
31	---	---	---	---	---	---	---	---	---	9.3	8.0	8.6
MONTH	---	---	---	---	---	---	---	---	---	13.2	3.3	9.2

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

OXYGEN, DISSOLVED (MG/L), AT LEFT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	10.7	8.1	9.1	8.6	6.4	7.4	9.5	6.9	8.0
2	---	---	---	11.7	8.1	9.6	10.0	7.2	8.7	9.0	6.8	7.9
3	---	---	---	9.4	6.1	7.9	11.7	9.1	10.2	8.1	6.9	7.4
4	---	---	---	6.5	5.9	6.1	12.4	9.1	10.6	7.2	6.1	6.6
5	---	---	---	7.2	6.3	6.8	13.0	10.1	11.3	7.7	6.8	7.2
6	---	---	---	7.1	6.3	6.7	12.9	9.4	10.8	7.7	7.1	7.3
7	---	---	---	7.9	6.3	7.1	12.4	8.7	10.3	7.7	7.1	7.4
8	---	---	---	9.0	6.9	7.8	11.5	8.0	9.5	8.6	6.9	7.6
9	---	---	---	7.5	7.1	7.3	8.1	6.7	7.1	9.3	7.2	8.1
10	---	---	---	9.3	7.1	8.0	8.6	6.5	7.3	9.2	7.1	7.9
11	---	---	---	10.1	7.9	8.8	8.1	6.8	7.6	7.6	6.7	7.2
12	---	---	---	9.4	7.2	8.3	10.5	6.6	8.5	8.7	7.4	8.0
13	9.2	7.2	8.1	9.0	6.5	7.6	9.6	8.1	8.9	10.2	8.1	9.1
14	9.5	7.1	8.3	10.1	7.0	8.5	9.6	8.1	8.8	11.2	8.3	9.5
15	9.0	7.5	8.4	10.5	7.6	8.8	8.9	7.6	8.5	11.4	8.2	9.6
16	8.7	7.4	8.2	7.4	5.1	6.4	8.0	7.4	7.6	11.3	8.1	9.5
17	9.0	7.8	8.4	6.8	5.5	6.1	7.7	7.1	7.3	11.1	7.9	9.3
18	8.7	7.6	8.1	7.2	6.0	6.6	8.1	7.2	7.6	10.7	7.9	9.0
19	8.2	6.2	7.1	8.2	6.6	7.2	8.3	7.6	7.9	9.5	7.5	8.3
20	7.7	6.2	6.8	8.8	6.6	7.5	8.8	7.4	8.1	9.2	7.2	8.1
21	7.7	6.7	7.3	8.9	6.6	7.6	10.5	8.3	9.1	10.2	7.7	8.8
22	8.6	7.0	7.7	10.1	6.2	7.9	11.4	8.8	9.8	10.4	7.8	8.9
23	10.9	8.4	9.6	7.6	5.5	6.7	12.5	8.9	10.2	9.6	7.5	8.4
24	10.4	8.6	9.8	7.2	5.5	6.4	13.6	8.9	10.8	9.5	8.0	8.7
25	11.9	8.1	9.7	8.0	6.9	7.4	12.4	9.0	10.4	10.6	8.6	9.5
26	10.4	8.8	9.7	7.8	6.6	7.3	10.9	7.5	9.0	9.7	8.5	9.1
27	9.7	7.2	8.0	7.7	6.3	7.0	9.0	6.6	7.6	8.6	8.0	8.4
28	10.1	6.8	8.3	9.0	6.9	7.9	8.6	5.8	7.1	8.8	7.9	8.3
29	10.8	7.1	9.0	10.9	7.7	8.9	7.3	6.1	6.7	9.7	8.5	9.1
30	9.5	7.5	8.7	13.1	8.8	10.5	8.4	6.2	7.2	10.4	8.5	9.4
31	---	---	---	11.5	7.9	10.0	9.5	6.7	7.9	---	---	---
MONTH	---	---	---	13.1	5.1	7.7	13.6	5.8	8.7	11.4	6.1	8.4

OXYGEN, DISSOLVED (MG/L), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.8	6.5	6.6	7.3	6.1	6.6	---	---	---	11.4	10.8	11.1
2	6.9	6.4	6.6	6.8	6.0	6.4	---	---	---	11.9	11.5	11.7
3	6.4	6.0	6.2	6.3	5.5	5.8	---	---	---	12.2	11.7	11.9
4	6.3	5.8	6.0	9.5	5.4	7.5	---	---	---	11.9	10.7	11.5
5	6.4	5.5	5.8	10.6	7.9	9.0	---	---	---	10.6	10.0	10.3
6	5.6	5.3	5.5	10.0	7.8	8.7	---	---	---	10.2	10.1	10.1
7	5.4	5.1	5.3	9.2	7.7	8.4	---	---	---	10.5	10.2	10.4
8	6.4	5.2	5.8	9.4	8.1	8.7	---	---	---	10.8	10.5	10.7
9	7.1	6.1	6.6	9.6	8.2	9.0	---	---	---	11.0	10.8	10.9
10	7.8	6.5	7.0	9.5	8.5	9.0	---	---	---	11.2	10.8	11.0
11	7.4	6.2	6.8	9.6	8.7	9.1	---	---	---	11.2	10.9	11.0
12	7.4	6.1	6.5	9.8	8.2	8.8	---	---	---	12.1	11.1	11.5
13	7.3	6.0	6.5	8.4	7.2	7.8	8.9	8.6	8.8	11.7	11.3	11.5
14	7.5	6.0	6.6	8.2	6.6	7.3	8.7	8.3	8.6	12.2	10.8	11.5
15	7.8	6.2	6.9	7.6	6.5	6.9	8.5	8.4	8.4	10.8	9.9	10.2
16	7.6	6.6	7.0	8.6	6.5	7.5	9.4	8.6	9.0	10.9	10.0	10.4
17	7.0	6.2	6.5	9.0	7.3	8.1	9.9	9.4	9.8	11.8	10.9	11.2
18	7.2	6.6	6.9	9.2	7.5	8.3	10.1	9.8	10.0	12.5	11.8	12.2
19	7.2	6.8	7.0	9.8	8.1	8.9	10.7	10.1	10.4	---	---	---
20	7.1	6.6	6.8	9.9	8.0	9.0	11.4	10.7	10.8	12.8	12.5	12.6
21	7.5	6.7	7.1	9.2	8.4	8.8	11.0	10.8	10.9	13.0	12.5	12.7
22	7.9	7.2	7.5	8.4	7.3	7.7	10.9	10.6	10.7	13.1	12.6	12.8
23	8.1	7.3	7.6	10.4	8.4	9.5	10.6	10.1	10.4	12.9	12.1	12.5
24	7.8	6.7	7.2	9.7	8.4	9.4	10.3	10.0	10.1	12.8	11.5	12.1
25	7.5	6.1	6.7	8.4	5.8	6.9	10.2	9.9	10.1	13.0	12.4	12.6
26	6.9	5.6	6.2	---	---	---	10.5	10.2	10.3	12.2	11.8	12.0
27	6.3	5.1	5.6	---	---	---	10.8	10.5	10.6	12.4	12.0	12.2
28	7.3	4.9	5.8	---	---	---	11.2	10.7	10.9	12.5	12.1	12.3
29	5.7	4.5	5.0	---	---	---	11.1	10.6	10.9	12.5	12.1	12.3
30	6.1	4.8	5.4	---	---	---	10.8	10.1	10.5	12.7	12.3	12.5
31	6.7	5.6	6.1	---	---	---	10.8	10.2	10.5	12.6	12.1	12.4
MONTH	8.1	4.5	6.4	10.6	5.4	8.1	---	---	---	13.1	9.9	11.6

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

OXYGEN, DISSOLVED (MG/L), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.5	11.9	12.2	---	---	---	9.6	8.8	9.2	9.0	8.5	8.7
2	12.8	11.8	12.3	---	---	---	10.0	9.0	9.4	8.7	8.0	8.3
3	---	---	---	---	---	---	10.6	9.6	10.0	8.5	7.6	8.0
4	---	---	---	---	---	---	11.1	10.4	10.8	8.4	7.7	8.0
5	---	---	---	---	---	---	12.0	10.7	11.2	8.1	7.5	7.8
6	---	---	---	---	---	---	12.5	10.7	11.6	8.6	7.5	8.0
7	---	---	---	---	---	---	13.5	10.7	12.0	8.8	8.1	8.4
8	---	---	---	---	---	---	13.3	10.5	12.0	9.1	8.2	8.4
9	---	---	---	---	---	---	13.0	10.5	11.4	8.9	7.7	8.4
10	---	---	---	---	---	---	12.5	10.1	11.3	8.0	7.0	7.5
11	---	---	---	11.5	9.9	10.6	13.0	9.1	10.4	7.7	7.0	7.3
12	---	---	---	13.1	11.3	12.3	11.0	9.4	10.0	8.1	7.0	7.5
13	---	---	---	12.9	12.0	12.4	10.9	9.9	10.3	7.8	6.8	7.1
14	---	---	---	13.5	12.5	13.0	10.8	10.1	10.5	7.0	6.5	6.7
15	---	---	---	14.3	12.7	13.5	10.8	10.1	10.5	6.7	6.4	6.5
16	---	---	---	15.1	13.2	14.1	10.7	9.4	9.9	7.4	6.4	6.8
17	---	---	---	14.4	13.1	13.8	9.9	9.1	9.5	7.0	6.5	6.8
18	---	---	---	15.2	12.5	13.8	10.4	9.4	9.8	7.2	6.6	6.9
19	---	---	---	14.3	11.8	13.0	11.1	9.6	10.2	7.3	6.8	7.0
20	---	---	---	14.6	12.3	13.5	11.0	10.0	10.5	7.6	7.0	7.3
21	---	---	---	14.2	11.8	13.0	10.7	9.6	10.1	9.3	7.1	8.0
22	---	---	---	13.8	11.8	12.9	10.1	8.9	9.3	9.4	6.5	7.4
23	---	---	---	15.1	11.6	13.0	9.7	8.5	9.0	6.8	5.7	6.2
24	---	---	---	15.8	13.6	14.7	8.5	7.6	8.0	7.3	5.9	6.5
25	---	---	---	16.0	12.8	14.7	8.4	7.5	7.9	6.9	5.4	6.1
26	---	---	---	15.9	13.5	14.2	8.9	7.6	8.3	5.4	3.7	4.6
27	---	---	---	12.9	10.2	11.0	9.1	8.2	8.7	6.6	5.5	6.2
28	---	---	---	12.7	10.9	11.7	9.1	8.1	8.6	6.8	6.1	6.5
29	---	---	---	12.3	10.6	11.7	9.2	8.3	8.8	7.4	6.6	7.0
30	---	---	---	10.5	9.5	9.8	9.1	8.5	8.8	7.4	6.8	7.1
31	---	---	---	9.9	9.3	9.5	---	---	---	8.7	6.9	7.8
MONTH	---	---	---	---	---	---	13.5	7.5	9.9	9.4	3.7	7.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.1	8.5	8.9	---	---	---	7.0	5.1	6.3	10.2	6.8	8.3
2	9.2	8.4	8.9	---	---	---	6.3	5.1	5.8	11.6	7.8	9.5
3	8.4	7.0	7.7	---	---	---	5.8	5.4	5.6	10.3	6.5	8.3
4	6.9	6.2	6.7	---	---	---	7.5	5.4	6.2	6.7	5.5	5.9
5	8.2	5.9	6.7	---	---	---	9.7	6.7	8.1	---	---	---
6	---	---	---	---	---	---	11.1	7.8	9.3	---	---	---
7	---	---	---	---	---	---	11.7	8.0	9.7	---	---	---
8	---	---	---	---	---	---	11.0	8.2	9.5	6.5	5.4	5.9
9	---	---	---	---	---	---	7.8	6.3	6.8	7.4	6.0	6.7
10	---	---	---	---	---	---	8.0	6.2	7.0	7.9	6.2	6.9
11	---	---	---	---	---	---	7.6	6.3	7.0	6.8	6.2	6.5
12	---	---	---	---	---	---	9.3	6.2	7.7	6.8	5.7	6.3
13	4.3	3.3	3.7	---	---	---	8.6	7.2	7.8	7.9	6.3	7.0
14	4.4	3.4	3.8	---	---	---	8.8	7.3	7.9	8.6	6.7	7.6
15	4.5	3.6	4.0	---	---	---	7.9	6.8	7.4	---	---	---
16	4.7	4.0	4.3	---	---	---	7.2	6.5	6.7	---	---	---
17	4.6	4.1	4.3	---	---	---	6.8	6.4	6.6	---	---	---
18	6.8	4.0	5.0	5.7	4.9	5.2	7.1	6.5	6.7	---	---	---
19	7.1	6.3	6.7	6.1	5.0	5.5	7.0	6.5	6.7	9.4	6.9	8.0
20	6.7	5.8	6.3	6.9	5.4	6.0	7.7	6.4	7.0	9.0	6.7	7.8
21	7.8	5.8	6.8	7.9	5.8	6.7	9.0	6.9	7.9	10.3	7.4	8.6
22	8.9	6.7	7.7	9.7	5.9	7.6	10.8	7.5	9.0	10.1	7.4	8.5
23	10.9	8.6	9.7	7.4	5.7	6.7	11.8	8.3	9.9	9.0	7.1	7.9
24	---	---	---	6.4	5.7	5.9	12.8	8.4	10.4	9.0	7.0	8.0
25	---	---	---	6.9	5.8	6.3	11.9	8.4	10.0	10.1	7.9	9.0
26	---	---	---	6.8	6.2	6.4	11.0	7.2	9.0	9.1	7.3	8.4
27	---	---	---	7.2	6.0	6.7	10.2	7.2	8.6	7.4	6.9	7.1
28	---	---	---	8.4	6.4	7.3	9.2	6.6	7.9	6.8	6.6	6.7
29	---	---	---	10.0	6.9	8.3	7.3	5.3	6.4	7.6	6.6	7.0
30	---	---	---	12.0	7.7	9.6	9.2	6.8	7.8	8.3	6.8	7.5
31	---	---	---	10.6	7.8	9.3	9.3	6.5	7.8	---	---	---
MONTH	---	---	---	---	---	---	12.8	5.1	7.8	---	---	---

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

OXYGEN, DISSOLVED (MG/L), AT RIGHT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	9.0	8.6	8.8	10.9	10.6	10.8
2	---	---	---	---	---	---	8.7	7.6	8.0	11.2	10.9	11.0
3	---	---	---	---	---	---	8.6	7.7	8.0	11.5	11.1	11.2
4	---	---	---	---	---	---	9.0	8.7	9.0	11.2	10.6	10.9
5	---	---	---	---	---	---	9.0	8.8	8.9	10.5	10.0	10.2
6	---	---	---	---	---	---	9.2	9.0	9.1	10.1	10.0	10.0
7	---	---	---	---	---	---	9.4	9.2	9.3	10.3	10.1	10.2
8	---	---	---	---	---	---	9.4	9.1	9.3	10.7	10.4	10.6
9	---	---	---	---	---	---	9.1	8.3	8.6	10.8	10.5	10.7
10	---	---	---	---	---	---	8.3	7.9	8.1	11.2	10.7	10.9
11	---	---	---	---	---	---	8.8	8.2	8.5	11.1	10.8	11.0
12	---	---	---	---	---	---	9.1	8.8	9.0	11.5	11.0	11.2
13	---	---	---	---	---	---	9.2	9.0	9.2	11.6	11.2	11.4
14	---	---	---	---	---	---	9.0	8.5	8.8	11.5	10.8	11.2
15	---	---	---	---	---	---	8.8	8.7	8.7	10.8	9.9	10.2
16	---	---	---	---	---	---	9.6	8.8	9.3	10.9	10.0	10.4
17	---	---	---	---	---	---	10.2	9.6	10.0	11.3	11.0	11.1
18	---	---	---	---	---	---	10.3	10.0	10.2	11.8	11.3	11.5
19	---	---	---	---	---	---	10.9	10.3	10.6	---	---	---
20	---	---	---	---	---	---	11.1	10.9	11.0	12.7	12.1	12.4
21	---	---	---	---	---	---	11.2	11.0	11.1	12.5	12.1	12.3
22	---	---	---	---	---	---	11.1	10.7	10.9	12.3	11.8	12.0
23	---	---	---	---	---	---	10.7	10.2	10.5	11.9	11.3	11.6
24	---	---	---	---	---	---	10.4	10.1	10.3	11.6	10.7	11.2
25	---	---	---	---	---	---	10.4	10.0	10.2	11.2	10.9	11.1
26	---	---	---	6.2	5.5	5.9	10.4	10.2	10.3	11.8	11.2	11.5
27	---	---	---	7.1	6.3	6.7	10.8	10.4	10.6	12.3	11.9	12.1
28	---	---	---	8.2	7.2	7.8	11.0	10.6	10.8	12.2	11.9	12.1
29	---	---	---	8.8	8.2	8.5	11.0	10.6	10.8	12.4	12.0	12.2
30	---	---	---	9.0	8.6	8.8	10.8	10.1	10.5	12.5	12.1	12.4
31	---	---	---	---	---	---	10.6	10.2	10.4	12.5	12.0	12.2
MONTH	---	---	---	---	---	---	11.2	7.6	9.6	12.7	9.9	11.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.2	11.7	12.0	12.4	11.0	11.8	---	---	---	9.3	8.4	8.8
2	12.5	12.0	12.2	12.7	11.7	12.3	---	---	---	9.0	8.2	8.5
3	13.1	12.3	12.6	12.6	11.6	12.0	---	---	---	8.3	7.6	7.8
4	13.5	12.6	12.9	12.8	11.7	12.1	---	---	---	7.6	6.8	7.1
5	13.4	12.6	12.9	12.9	12.1	12.6	---	---	---	7.3	6.9	7.1
6	13.7	12.7	13.1	13.0	11.1	12.1	---	---	---	8.5	7.4	8.1
7	14.0	12.8	13.3	12.2	10.3	11.3	---	---	---	8.7	8.3	8.5
8	13.8	12.9	13.2	11.0	9.9	10.5	---	---	---	8.5	8.1	8.3
9	14.1	12.9	13.3	10.7	9.5	10.1	---	---	---	8.3	7.6	8.1
10	14.5	13.0	13.7	10.6	9.7	10.1	9.8	8.9	9.2	8.1	7.0	7.5
11	15.3	13.3	14.2	10.0	8.9	9.6	9.1	8.1	8.7	7.6	7.0	7.3
12	15.8	13.9	14.6	10.2	8.9	9.6	8.2	7.7	7.9	8.0	7.0	7.5
13	16.2	14.0	14.8	10.6	10.2	10.4	10.3	8.2	8.9	7.8	6.9	7.2
14	16.0	13.9	14.7	11.2	10.4	10.9	11.0	9.9	10.4	7.1	6.3	6.5
15	15.5	13.5	14.5	11.7	11.1	11.4	11.0	10.1	10.4	6.5	6.0	6.3
16	13.5	11.0	12.7	12.1	11.1	11.6	10.7	9.1	9.7	6.1	5.9	6.0
17	11.7	10.9	11.2	12.4	11.7	12.0	9.9	9.0	9.5	6.5	5.9	6.3
18	11.4	10.9	11.1	12.8	11.9	12.3	10.1	8.9	9.5	6.9	6.3	6.6
19	11.4	10.6	11.0	12.7	12.0	12.2	10.3	9.0	9.7	6.9	6.5	6.7
20	11.4	10.4	11.0	13.4	11.9	12.5	10.6	9.4	9.9	6.9	6.5	6.7
21	12.1	10.7	11.5	13.6	12.3	13.0	10.5	9.5	10.0	7.4	6.6	6.9
22	12.4	11.4	12.0	13.8	12.3	13.2	10.2	8.9	9.5	7.4	6.2	6.7
23	12.6	11.7	12.3	14.2	12.5	13.4	9.6	8.2	8.9	6.9	5.5	6.1
24	12.7	11.8	12.1	14.7	12.9	13.8	8.6	7.6	8.1	7.9	5.8	6.5
25	11.8	10.7	11.1	15.2	13.3	14.2	8.3	7.4	7.8	6.1	5.0	5.7
26	11.5	10.5	11.1	15.1	12.5	13.9	8.8	7.2	8.0	4.9	3.1	4.0
27	11.5	10.5	11.0	12.1	10.2	11.0	9.1	8.1	8.6	6.3	5.1	5.7
28	11.7	10.9	11.3	10.4	9.7	10.2	9.4	8.0	8.6	6.5	5.5	6.1
29	11.8	10.8	11.3	10.1	9.6	9.8	9.5	8.3	8.9	7.3	6.2	6.7
30	---	---	---	9.8	9.1	9.3	9.5	8.6	9.0	7.3	6.3	6.7
31	---	---	---	9.1	8.6	8.9	---	---	---	8.7	6.4	7.2
MONTH	16.2	10.4	12.5	15.2	8.6	11.6	---	---	---	9.3	3.1	6.9

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

OXYGEN, DISSOLVED (MG/L), AT RIGHT INTAKE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.8	6.9	7.4	9.5	6.7	7.8	7.9	5.6	6.5	11.1	7.4	9.2
2	7.0	6.2	6.6	10.1	6.9	8.3	6.6	5.6	6.2	11.7	9.6	10.6
3	6.2	5.5	5.9	9.6	7.3	8.5	6.2	5.8	6.0	10.7	7.4	10.1
4	5.5	5.2	5.5	7.9	6.5	7.2	7.0	5.6	6.2	9.6	5.7	6.7
5	7.4	5.0	5.4	7.0	5.9	6.5	7.5	5.7	6.6	6.6	5.7	6.3
6	8.0	6.9	7.6	7.8	5.9	6.6	9.4	6.7	7.9	6.4	5.5	6.0
7	7.5	3.4	5.3	8.7	6.0	7.2	10.7	7.5	9.1	5.7	5.3	5.5
8	3.6	3.4	3.5	9.2	6.5	7.8	10.7	8.8	9.6	6.1	5.5	5.8
9	3.3	3.1	3.2	8.9	6.5	7.7	9.0	7.6	8.4	6.9	5.9	6.4
10	---	---	---	6.6	5.5	5.9	7.5	6.0	6.5	7.5	6.2	6.7
11	---	---	---	5.8	5.0	5.4	7.3	6.1	6.6	7.2	6.3	6.7
12	---	---	---	5.5	5.0	5.2	7.5	6.1	6.8	6.7	5.8	6.3
13	3.4	2.7	3.0	6.7	4.9	5.6	7.7	6.5	7.0	7.9	6.4	7.1
14	3.5	2.7	3.0	7.9	5.4	6.6	8.1	6.5	7.3	8.2	6.9	7.5
15	3.6	2.8	3.2	7.0	5.5	6.3	7.6	6.5	7.1	9.1	7.2	8.0
16	3.6	3.2	3.4	5.8	5.1	5.4	6.8	6.3	6.5	9.9	7.4	8.5
17	3.5	3.2	3.4	5.0	4.4	4.7	6.7	6.3	6.5	---	---	---
18	3.9	3.1	3.5	5.6	4.6	5.1	7.3	6.4	6.8	---	---	---
19	4.3	3.6	3.9	6.2	5.0	5.5	7.2	6.8	6.9	---	---	---
20	4.8	4.3	4.5	7.0	5.3	6.0	7.6	6.6	7.0	---	---	---
21	5.7	4.4	5.1	8.0	5.9	6.8	7.9	6.7	7.3	---	---	---
22	5.9	5.0	5.4	9.6	5.7	7.6	9.1	6.9	7.9	---	---	---
23	6.7	5.6	6.1	7.4	5.9	6.6	9.7	7.7	8.6	---	---	---
24	6.9	6.2	6.5	6.2	5.3	5.7	10.4	7.4	8.8	---	---	---
25	6.5	6.1	6.2	6.9	5.6	6.2	10.3	7.7	9.0	---	---	---
26	6.4	5.8	6.1	6.7	5.9	6.2	10.8	7.8	9.3	---	---	---
27	6.8	6.0	6.4	6.8	5.6	6.1	10.4	8.2	9.3	---	---	---
28	7.4	6.1	6.7	8.5	5.9	7.0	9.7	7.3	8.6	---	---	---
29	8.1	6.0	7.1	9.5	6.3	7.9	7.9	4.6	6.4	---	---	---
30	8.4	6.8	7.5	9.8	7.2	8.4	9.9	7.5	8.6	---	---	---
31	---	---	---	9.6	8.1	8.6	10.2	7.1	8.6	---	---	---
MONTH	8.4	2.7	5.2	10.1	4.4	6.7	10.8	4.6	7.5	---	---	---

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ
(National stream quality accounting network station)

LOCATION.--Lat 40°53'05", long 74°13'35", Passaic County, Hydrologic Unit 02030103, on left bank 0.6 mi downstream from Beattie's Dam in Little Falls, and 1.0 mi upstream from Peckman River.

DRAINAGE AREA.--762 mi^2. Area at site used prior to Oct. 1, 1955, 799 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1897 to current year. Monthly discharge only for September 1897, published in WSP 1302. Published as "at Paterson", September 1897 to September 1955.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 120.00 ft above sea level (levels by Passaic Valley Water Commission). Prior to Jan. 8, 1933, nonrecording gage and Jan. 8, 1933, to Sept. 30, 1955, water-stage recorder, at site 3.7 mi downstream at sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation at medium and low flow caused by hydroelectric plant at Beattie's Dam. Flow regulated by reservoirs in Rockaway, Pequannock, Wanaque, and Ramapo River subbasins (see Passaic River basin, reservoirs in). Large diversions for municipal supply from Passaic River above Beattie's Dam, and from Rockaway, Pequannock, Pompton, Ramapo, and Wanaque Rivers (see Passaic River basin, diversions and Hackensack River basin, diversions). In addition, the New Jersey-American Water Company (formerly Commonwealth Water Co.) diverts from Canoe Brook near Summit and from Passaic River (see Passaic River basin, diversions); that company, the city of East Orange, and others also divert water for municipal supply by pumping wells in the basin. Several measurements of water temperature, other than those published, were made during the year. National Weather Service rain-gage and gage-height and USGS satellite telemeters at station.

COOPERATION.--Gage-height record collected in cooperation with the Passaic Valley Water Commission. Analyses of fecal coliform by the MPN method and enterococcus bacteria by the membrane filtration method were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 7	2215	*6,410	*7.21	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	485	155	200	487	457	380	2310	578	2310	423	1190	172
2	229	117	174	417	437	262	2080	543	2290	362	989	155
3	240	100	1000	404	407	224	1830	537	2020	323	800	489
4	79	141	1910	562	389	298	1590	512	1780	410	619	1660
5	57	191	1830	843	384	463	1350	462	1970	478	479	1150
6	207	161	1630	876	369	448	1110	436	4590	419	355	967
7	293	105	1390	754	358	522	889	400	6050	373	275	658
8	96	93	1260	624	354	805	730	422	6250	312	239	437
9	55	87	977	569	352	890	605	714	5600	621	607	335
10	107	87	925	539	298	792	575	801	4780	723	734	287
11	90	132	839	504	160	1210	674	749	3940	641	618	517
12	86	188	673	477	143	1540	706	635	3290	497	554	505
13	107	133	595	416	120	1420	681	551	2780	454	444	382
14	70	109	571	566	130	1360	601	492	2330	414	417	289
15	75	87	530	778	174	1200	533	433	1940	485	396	234
16	206	84	440	734	640	968	505	493	1520	741	369	205
17	317	90	352	573	698	839	588	549	1120	665	413	207
18	406	105	289	487	601	777	762	544	773	589	565	214
19	339	100	239	400	470	770	885	480	658	493	641	218
20	190	98	230	387	406	828	899	422	791	408	545	222
21	79	101	225	350	337	838	807	380	764	347	413	189
22	77	473	213	323	235	805	763	284	633	284	322	187
23	104	1430	204	407	205	797	938	137	518	354	270	327
24	79	1670	202	932	193	771	984	191	510	586	239	302
25	80	1360	188	1120	243	741	1110	338	630	471	219	241
26	92	985	160	929	594	934	1070	285	592	391	191	402
27	87	685	149	756	769	2420	935	289	668	521	261	507
28	135	448	140	600	720	2940	799	247	680	441	288	480
29	97	308	209	527	564	2780	709	190	584	341	331	389
30	92	242	406	511	---	2570	633	151	487	292	255	298
31	85	---	468	483	---	2490	---	737	---	411	203	---
TOTAL	4741	10065	18618	18335	11207	34082	28651	13982	62848	14270	14241	12625
MEAN	153	335	601	591	386	1099	955	451	2095	460	459	421
MAX	485	1670	1910	1120	769	2940	2310	801	6250	741	1190	1660
MIN	55	84	140	323	120	224	505	137	487	284	191	155

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1992, BY WATER YEAR (WY)

MEAN	627	947	1255	1336	1438	2377	2077	1329	788	535	555	538
MAX	5613	4757	4497	4039	3787	6755	5760	4554	4290	3124	2859	3561
(WY)	1904	1908	1903	1979	1973	1936	1983	1989	1972	1945	1942	1971
MIN	44.5	79.2	111	104	178	423	228	227	84.6	60.3	30.4	28.9
(WY)	1931	1932	1981	1981	1901	1981	1985	1965	1965	1954	1923	1964

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1898 - 1992	
ANNUAL TOTAL	281429		243665			
ANNUAL MEAN	771		666		1149	
HIGHEST ANNUAL MEAN					2394	1903
LOWEST ANNUAL MEAN					269	1965
HIGHEST DAILY MEAN	3790	Mar 5	6250	Jun 8	28000	Oct 10 1903
LOWEST DAILY MEAN	41	Sep 7	55	Oct 9	.00	Jul 3 1904
ANNUAL SEVEN-DAY MINIMUM	55	Sep 7	84	Oct 9	13	Sep 19 1932
INSTANTANEOUS PEAK FLOW			6410	Jun 7	31700a	Oct 10 1903
INSTANTANEOUS PEAK STAGE			7.21	Jun 7	---	
INSTANTANEOUS LOW FLOW			36	Oct 9	.00	Jul 3 1904
10 PERCENT EXCEEDS	1880		1350		2780	
50 PERCENT EXCEEDS	453		472		635	
90 PERCENT EXCEEDS	91		131		128	

a Present site.

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to November 1986 (discontinued).
WATER TEMPERATURE: Water years 1963 to 1980 (once daily), September 1980 to November 1986 (discontinued).
DISSOLVED OXYGEN: October 1970 to September 1980 (once daily).
SUSPENDED-SEDIMENT DISCHARGE: August 1963 to July 1965.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Missing continuous water-quality records are the result of malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 965 microsiemens, Feb. 4, 1985; minimum, 99 microsiemens, April 6, 1984.
WATER TEMPERATURE: Maximum, 29.5°C, July 12, 1981; minimum, 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum daily, 14.4 mg/L, Jan. 7, 1973; minimum daily, 1.7 mg/L, June 23, 1976.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991												
30...	1230	97	605	7.9	12.5	--	10.6	100	E2.0	130	--	<20
NOV												
20...	1200	97	645	8.0	7.5	3.1	11.7	98	2.0	--	90	--
DEC												
19...	1200	243	446	7.7	1.0	--	15.0	105	0.5	--	--	--
JAN 1992												
22...	1200	329	458	7.8	2.0	2.8	15.5	112	E1.5	1300	--	140
FEB												
20...	1100	407	485	7.5	2.0	--	13.9	101	2.4	--	--	--
MAR												
24...	1400	766	515	8.0	4.5	23	14.3	111	--	--	--	--
APR												
20...	1230	900	353	7.8	8.0	--	12.6	106	1.2	--	--	--
MAY												
13...	1215	547	372	7.8	17.5	--	9.5	100	3.6	--	--	--
27...	1200	292	444	7.7	16.0	10	9.1	93	E1.4	490	300	60
JUN												
12...	1300	E3290	195	7.4	20.0	--	8.7	96	--	--	--	--
25...	1430	657	377	8.2	20.0	--	10.6	119	12	--	--	--
JUL												
22...	1130	303	404	7.9	24.5	5.0	9.0	108	--	140	200	100
AUG												
29...	1230	333	515	8.3	24.5	--	9.0	110	--	--	--	--
SEP												
09...	1200	337	440	8.1	21.5	--	8.5	97	4.8	--	--	--
17...	1200	208	485	8.3	21.0	5.7	9.5	107	--	--	760	--

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE IT-FLD (MG/L AS HCO3)	ALKALINITY, CARBONATE IT-FLD (MG/L AS CACO3)	ALKALINITY LAB (MG/L AS CACO3)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 1991												
30...	--	160	40	14	54	5.9	--	--	96	--	51	90
NOV												
20...	36	160	42	14	62	6.2	--	--	100	--	54	92
DEC												
19...	--	120	30	9.8	38	3.5	--	--	71	--	40	63
JAN 1992												
22...	200	120	31	10	39	3.3	--	--	75	--	36	65
FEB												
20...	--	110	28	9.5	48	2.9	--	--	57	--	31	86
MAR												
24...	--	100	28	8.2	61	2.3	70	58	55	60	30	110
APR												
20...	--	94	25	7.7	28	1.9	--	--	56	--	25	53
MAY												
13...	--	99	26	8.3	32	2.4	--	--	63	--	28	53
27...	110	110	29	9.8	39	3.6	90	74	71	74	30	64
JUN												
12...	--	53	14	4.4	14	1.9	--	--	34	--	13	20
25...	--	110	28	8.8	32	2.8	--	--	65	--	28	51
JUL												
22...	1200	110	29	9.1	33	2.9	86	70	74	74	28	57
AUG												
29...	--	130	33	11	43	4.5	--	--	80	--	36	66
SEP												
09...	--	110	30	9.4	38	3.0	--	--	74	--	32	61
17...	K380	120	32	10	40	3.7	98	80	80	80	32	66

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)
OCT 1991											
30...	0.2	15	357	0.08	0.07	6.10	6.10	0.17	0.16	1.0	0.8
NOV											
20...	0.2	14	378	0.05	0.04	6.50	6.70	0.24	0.24	0.9	1.0
DEC											
19...	0.2	15	258	0.04	0.03	3.30	3.30	0.33	0.32	0.9	0.9
JAN 1992											
22...	0.2	12	257	0.02	0.01	3.10	3.10	0.33	0.33	0.9	0.8
FEB											
20...	<0.1	11	262	0.02	0.02	2.30	2.40	0.25	0.26	0.8	0.6
MAR											
24...	<0.1	6.6	290	0.02	0.02	2.10	2.00	0.04	0.05	0.4	0.3
APR											
20...	0.1	7.9	191	0.04	0.03	1.90	1.90	0.13	0.13	0.7	0.4
MAY											
13...	0.2	8.2	206	0.03	0.03	2.20	2.20	0.07	0.08	0.4	0.2
27...	0.2	9.4	246	0.05	0.05	3.40	3.50	0.17	0.17	1.1	0.8
JUN											
12...	<0.1	7.3	97	0.02	0.02	0.43	0.44	0.06	0.07	0.6	0.5
25...	<0.1	13	216	0.04	0.03	2.80	2.80	0.03	0.02	0.4	0.3
JUL											
22...	0.2	10	225	0.03	0.03	2.90	2.90	0.03	0.01	0.9	0.4
AUG											
29...	0.2	9.8	272	0.03	0.03	4.00	4.30	0.03	0.03	0.5	0.4
SEP											
09...	0.2	10	241	0.01	0.02	2.80	2.80	0.06	0.05	0.8	0.4
17...	<0.1	9.4	260	0.01	0.02	3.90	3.80	0.01	<0.01	0.8	0.4

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1991											
30...	7.1	6.9	1.10	0.90	0.91	0.84	5.6	0.7	9	2.4	--
NOV											
20...	7.4	7.7	1.10	1.10	1.00	0.97	5.0	0.7	8	2.1	100
DEC											
19...	4.2	4.2	0.55	0.41	0.47	0.40	5.6	0.3	--	--	--
JAN 1992											
22...	4.0	3.9	0.50	0.42	0.44	0.38	4.3	0.3	5	4.4	E90
FEB											
20...	3.1	3.0	0.37	0.30	0.26	0.28	4.8	--	--	--	--
MAR											
24...	2.5	2.3	0.25	0.21	0.22	0.19	3.6	0.4	2	4.1	90
APR											
20...	2.6	2.3	0.26	0.16	0.18	0.14	3.7	0.7	--	--	--
MAY											
13...	2.6	2.4	0.24	0.24	0.27	0.21	4.3	1.2	--	--	--
27...	4.5	4.3	0.56	0.35	0.39	0.32	5.7	--	22	17	97
JUN											
12...	1.0	0.94	0.27	0.14	0.16	0.15	8.4	0.8	--	--	--
25...	3.2	3.1	0.29	0.21	0.25	0.20	4.1	1.5	--	--	--
JUL											
22...	3.8	3.3	0.45	0.29	0.32	0.30	5.1	1.2	20	16	95
AUG											
29...	4.5	4.7	0.63	0.56	0.52	0.50	4.5	1.9	--	--	--
SEP											
09...	3.6	3.2	0.42	0.28	0.30	0.30	4.8	1.5	--	--	--
17...	4.7	4.2	0.59	0.40	0.41	0.41	4.2	1.6	93	52	47

DATE	TIME	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 1991												
31...	1130	<1	1	4.3	330	440	<0.1	12	--	<1	--	<1
NOV												
20...	1200	--	--	--	--	--	--	--	<10	--	14	--
MAR 1992												
24...	1400	--	--	--	--	--	--	--	20	--	16	--
JUL												
22...	1130	--	--	--	--	--	--	--	<10	--	16	--
SEP												
17...	1200	--	--	--	--	--	--	--	20	--	17	--

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)
OCT 1991												
31...	9	--	<5	10	--	5800	30	--	--	100	0.16	--
NOV												
20...	--	<3	--	--	24	--	--	<4	26	--	--	<10
MAR 1992												
24...	--	<3	--	--	42	--	--	<4	59	--	--	<10
JUL												
22...	--	<3	--	--	<3	--	--	<4	46	--	--	<10
SEP												
17...	--	<3	--	--	11	--	--	<4	42	--	--	<10

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 1991 31...	--	<10	--	<1	--	--	--	100	150	<1.0	<0.1	12
NOV 20...	2	--	<1	--	<1.0	150	<6	--	--	--	--	--
MAR 1992 24...	2	--	<1	--	<1.0	100	<6	--	--	--	--	--
JUL 22...	2	--	<1	--	<1.0	100	<6	--	--	--	--	--
SEP												

DATE	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOT-TOM MA-TERIAL, (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 1991 31...	1.0	0.3	6.4	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<0.1	<1.00	<10
NOV 20...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 1992 24...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 22...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 17...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	ORGANIC HALOGEN TOT REC FROM BOT-TOM MAT-TERIAL (UG/G) AS CL
OCT 1991 31...	<0.25
NOV 20...	--
MAR 1992 24...	--
JUL 22...	--
SEP 17...	--

01389880 PASSAIC RIVER AT ROUTE 46 AT ELMWOOD PARK, NJ

LOCATION.--Lat 40°53'37", long 74°07'46", Passaic County, Hydrologic Unit 02030103, at bridge on U.S. Route 46 at Elmwood Park, and 0.8 mi upstream from Dundee Dam.

DRAINAGE AREA.--803 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-81, 1991 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991 30...	1100	97	543	8.0	11.0	8.9	80	3.4	5400	940
JAN 1992 15...	1100	820	434	7.6	2.0	11.9	86	E1.8	700	1060
MAR 25...	1100	780	605	7.6	3.0	18.0	133	2.9	1600	950
MAY 28...	1130	260	512	8.1	18.0	15.0	159	E2.0	>24000	210
JUL 23...	1130	370	412	8.1	25.0	7.5	91	4.0	>24000	1150

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991 30...	160	41	13	46	4.7	97	44	72	0.1
JAN 1992 15...	110	28	8.6	40	2.8	67	32	63	0.2
MAR 25...	110	29	8.7	69	2.1	59	29	120	<0.1
MAY 28...	130	34	11	46	3.8	85	37	74	0.2
JUL 23...	110	30	9.4	35	3.3	77	27	58	0.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991 30...	13	312	0.048	0.048	4.30	4.42	0.10	0.14	1.1
JAN 1992 15...	10	237	0.040	0.025	2.60	2.66	0.14	0.14	1.1
MAR 25...	5.9	308	0.020	0.018	1.95	1.93	0.07	0.08	0.59
MAY 28...	9.0	280	0.052	0.054	3.26	3.28	<0.03	<0.03	1.7
JUL 23...	6.8	225	0.024	0.022	2.11	2.07	0.05	0.05	1.4

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991 30...	1.1	5.4	5.5	0.47	0.49	5.6	0.6	17	4.5
JAN 1992 15...	0.62	3.7	3.3	0.36	0.28	4.9	0.5	10	22
MAR 25...	0.34	2.5	2.3	0.20	0.21	3.7	0.7	38	80
MAY 28...	0.70	5.0	4.0	0.12	0.24	5.3	1.8	39	27
JUL 23...	0.25	3.5	2.3	0.41	0.24	4.8	3.0	--	--

01389880 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 30...	1100	28	1	<10	170	<1	<1	6

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 30...	460	10	120	<0.10	4	<1	10

01390500 SADDLE RIVER AT RIDGEWOOD, NJ

LOCATION.--Lat 40°59'05", long 74°05'30", Bergen County, Hydrologic Unit 02030103, on left bank 15 ft upstream from bridge on State Highway 17 in Ridgewood and 2.8 mi upstream from Hohokus Brook.

DRAINAGE AREA.--21.6 mi^2.

PERIOD OF RECORD.--October 1954 to September 1974, October 1977 to current year. Operated as a maximum-stage gage water years 1975-77.

REVISED RECORDS.--WRD-NJ 1974: 1971.

GAGE.--Water-stage recorder. Datum of gage is 71.74 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--No estimated daily discharges. Records fair. The flow past this station is affected by pumpage from wells by Hackensack Water Co. and others. Several measurements of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of July 23, 1945, reached a discharge of 6,400 ft^3/s, at site 1.6 mi upstream, drainage area, 19.1 mi^2, by slope-area measurement.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 23	0100	478	4.14	June 6	0130	520	4.28
Mar. 27	0245	463	4.09	Sep. 3	2030	*689	*4.81
May 31	1930	574	4.45				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	6.1	8.6	12	12	12	35	22	110	15	49	9.5
2	2.0	6.0	9.9	12	11	12	34	23	42	13	15	8.6
3	1.8	6.4	171	12	11	12	31	26	32	13	13	125
4	1.7	5.8	96	23	10	11	28	22	27	31	28	57
5	22	5.8	31	20	10	11	27	21	98	16	15	18
6	44	5.9	21	14	9.2	10	26	20	193	14	11	14
7	8.8	6.2	19	13	9.2	25	25	20	53	12	10	13
8	5.2	5.7	17	12	9.2	26	25	27	53	10	9.9	13
9	4.3	5.9	17	13	9.1	14	24	59	46	48	103	12
10	3.9	6.0	36	15	9.3	21	25	27	34	15	29	11
11	9.6	12	19	12	8.7	166	40	23	28	12	34	45
12	14	12	16	11	9.0	49	27	20	26	11	27	15
13	5.5	8.7	18	11	11	30	23	20	23	16	14	12
14	4.6	7.8	19	34	9.0	24	22	19	21	17	22	12
15	10	6.7	16	19	24	22	22	17	19	48	16	11
16	14	6.9	15	14	75	19	23	33	17	57	19	10
17	40	6.4	14	13	18	19	34	21	18	17	26	11
18	19	5.9	14	12	13	19	44	18	15	16	50	12
19	8.4	6.2	13	12	13	23	45	17	41	12	22	19
20	6.6	5.9	12	11	12	23	30	15	28	11	16	12
21	6.8	7.4	13	11	11	23	28	14	21	10	14	9.8
22	7.1	143	13	11	10	21	28	13	17	9.1	13	14
23	6.8	125	12	46	10	22	31	12	15	51	12	36
24	6.4	22	12	73	9.8	20	26	19	37	28	11	12
25	6.0	15	12	31	12	26	57	31	21	13	11	11
26	6.2	12	11	21	49	66	32	15	15	18	10	24
27	7.3	11	11	16	20	216	27	16	83	48	25	26
28	6.7	9.9	11	13	15	61	24	13	32	14	15	23
29	7.0	8.9	21	12	13	41	24	12	19	12	18	14
30	6.6	8.8	20	12	---	34	22	11	16	13	12	13
31	6.7	---	14	12	---	46	---	224	---	42	11	---
TOTAL	301.2	501.3	732.5	553	442.5	1124	889	850	1200	662.1	680.9	622.9
MEAN	9.72	16.7	23.6	17.8	15.3	36.3	29.6	27.4	40.0	21.4	22.0	20.8
MAX	44	143	171	73	75	216	57	224	193	57	103	125
MIN	1.7	5.7	8.6	11	8.7	10	22	11	15	9.1	9.9	8.6
CFSM	.45	.77	1.09	.83	.71	1.68	1.37	1.27	1.85	.99	1.02	.96
IN.	.52	.86	1.26	.95	.76	1.94	1.53	1.46	2.07	1.14	1.17	1.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (WY)

MEAN	22.5	35.0	36.9	35.8	41.7	54.5	59.0	44.4	28.3	21.1	20.6	18.9
MAX	104	109	109	115	86.9	104	152	118	121	87.6	77.1	70.6
(WY)	1956	1978	1973	1979	1961	1983	1983	1989	1972	1984	1955	1971
MIN	5.80	8.41	7.49	6.43	11.8	15.6	11.0	14.8	7.46	3.23	3.30	2.34
(WY)	1983	1982	1981	1981	1980	1985	1985	1965	1965	1966	1980	1980

01390500 SADDLE RIVER AT RIDGEWOOD, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1955 - 1992		
ANNUAL TOTAL	9912.7		8559.4				
ANNUAL MEAN	27.2		23.4		34.8		
HIGHEST ANNUAL MEAN					58.7		1984
LOWEST ANNUAL MEAN					16.6		1965
HIGHEST DAILY MEAN	445	Mar 4	224	May 31	1250	Nov 8	1977
LOWEST DAILY MEAN	1.7	Oct 4	1.7	Oct 4	.20	Sep 17	1966
ANNUAL SEVEN-DAY MINIMUM	2.8	Sep 12	5.9	Nov 4	1.7	Jul 12	1966
INSTANTANEOUS PEAK FLOW			689	Sep 3	4650	Nov 8	1977
INSTANTANEOUS PEAK STAGE			4.81	Sep 3	12.25	Nov 8	1977
INSTANTANEOUS LOW FLOW			1.3	Oct 5	---		
ANNUAL RUNOFF (CFSM)	1.26		1.08		1.61		
ANNUAL RUNOFF (INCHES)	17.07		14.74		21.92		
10 PERCENT EXCEEDS	51		44		69		
50 PERCENT EXCEEDS	18		15		22		
90 PERCENT EXCEEDS	4.3		7.2		6.9		

01391000 HOHOKUS BROOK AT HO-HO-KUS, NJ

LOCATION.--Lat 40°59'52", long 74°06'48", Bergen County, Hydrologic Unit 02030103, on left bank 500 ft upstream from bridge on Maple Avenue in Ho-Ho-Kus, and 3.5 mi upstream from mouth.

DRAINAGE AREA.--16.4 mi^2.

PERIOD OF RECORD.--April 1954 to September 1973, October 1977 to current year. Operated as a crest-stage partial-record station, water years 1974-77.

REVISED RECORDS.--WDR NJ-77-1: 1955(M), 1968(M), 1976(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 120.09 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--No estimated daily discharges. Records good except those above 300 ft^3/s, which are fair. Some regulation and diurnal fluctuation at low and medium flows caused by unknown sources, possibly sewage treatment plant upstream of gage. Several measurements of water temperature were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 31	1515	541	2.79	Sep. 3	1930	*1,060	*3.41
June 5	2045	622	2.89				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	17	21	22	23	26	43	30	123	25	98	20
2	19	18	22	22	21	27	40	31	52	23	33	19
3	18	17	155	22	22	25	37	33	39	23	28	155
4	17	16	92	40	21	25	35	29	33	35	33	100
5	22	16	41	37	21	24	33	28	173	27	27	35
6	36	16	33	27	20	24	32	26	260	26	23	28
7	24	16	30	25	20	44	31	24	77	23	22	27
8	18	16	28	24	21	46	31	34	67	22	21	28
9	17	16	29	26	21	32	31	63	61	57	113	27
10	17	17	51	27	20	35	33	36	48	28	50	26
11	27	26	32	25	22	127	52	31	42	23	46	56
12	26	22	28	24	21	55	37	28	39	21	40	29
13	19	19	31	25	20	39	32	28	36	25	28	24
14	17	17	31	47	21	34	31	26	34	28	33	23
15	25	17	26	34	42	31	29	24	33	80	29	23
16	33	17	24	26	76	29	32	43	31	86	32	23
17	59	16	23	23	34	30	44	31	30	33	38	22
18	45	16	23	22	29	29	49	26	29	31	53	22
19	25	15	22	21	29	34	50	24	49	27	35	29
20	20	15	22	21	27	34	39	23	42	25	29	24
21	19	20	23	21	25	32	34	23	32	23	25	22
22	20	122	23	21	24	31	35	22	29	21	23	27
23	18	107	24	48	23	33	41	21	28	54	22	42
24	18	39	24	57	27	30	36	33	48	41	23	23
25	18	29	22	31	32	31	63	43	38	26	22	21
26	17	24	22	28	67	64	40	26	29	36	30	35
27	17	23	22	25	42	162	35	27	105	59	42	36
28	17	22	21	23	32	65	32	24	44	30	31	33
29	17	21	35	23	32	48	31	22	30	24	29	24
30	17	20	34	25	---	42	30	21	26	26	22	21
31	17	---	25	22	---	53	---	227	---	74	21	---
TOTAL	698	772	1039	864	835	1341	1118	1107	1707	1082	1101	1024
MEAN	22.5	25.7	33.5	27.9	28.8	43.3	37.3	35.7	56.9	34.9	35.5	34.1
MAX	59	122	155	57	76	162	63	227	260	86	113	155
MIN	17	15	21	21	20	24	29	21	26	21	21	19
CFSM	1.37	1.57	2.04	1.70	1.76	2.64	2.27	2.18	3.47	2.13	2.17	2.08
IN.	1.58	1.75	2.36	1.96	1.89	3.04	2.54	2.51	3.87	2.45	2.50	2.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (WY)

MEAN	24.8	34.8	35.2	33.3	40.9	49.1	51.8	41.0	30.1	24.8	25.4	23.1
MAX	82.4	102	91.7	80.9	90.0	89.6	130	108	101	85.5	84.9	96.5
(WY)	1956	1978	1984	1979	1973	1983	1983	1989	1972	1984	1955	1971
MIN	6.21	7.10	12.3	9.07	15.3	20.8	19.4	13.9	7.58	3.91	5.17	5.78
(WY)	1965	1965	1981	1981	1980	1981	1985	1955	1965	1966	1966	1964

01391000 HOHOKUS BROOK AT HO-HO-KUS, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1955 - 1992	
ANNUAL TOTAL	12949		12688			
ANNUAL MEAN	35.5		34.7		34.5	
HIGHEST ANNUAL MEAN					61.3	1984
LOWEST ANNUAL MEAN					16.1	1965
HIGHEST DAILY MEAN	432	Mar 4	260	Jun 6	1220	Nov 8 1977
LOWEST DAILY MEAN	13	Aug 8	15	Nov 19	2.5	Jul 13 1966
ANNUAL SEVEN-DAY MINIMUM	13	Sep 12	16	Nov 3	2.8	Aug 2 1966
INSTANTANEOUS PEAK FLOW			1060	Sep 3	3700	Nov 8 1977
INSTANTANEOUS PEAK STAGE			3.41	Sep 3	7.06	Nov 8 1977
INSTANTANEOUS LOW FLOW			9.3	Nov 6	1.9	Aug 2 1966
ANNUAL RUNOFF (CFSM)	2.16		2.11		2.10	
ANNUAL RUNOFF (INCHES)	29.37		28.78		28.56	
10 PERCENT EXCEEDS	54		52		62	
50 PERCENT EXCEEDS	28		28		24	
90 PERCENT EXCEEDS	16		19		9.8	

01391500 SADDLE RIVER AT LODI, NJ

LOCATION.--Lat 40°53'25", long 74°04'51", Bergen County, Hydrologic Unit 02030103, on left bank 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1923 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1031: 1940(M). WSP 1552: 1929(M), 1936(M), 1938. WRD-NJ 1969: 1967. WRD-NJ 1970: 1968, 1969.

GAGE.--Water-stage recorder. Concrete control since Nov. 2, 1938. Datum of gage is 25.00 ft above sea level. Prior to Nov. 2, 1938, at site 560 ft downstream at datum 2.54 ft lower.

REMARKS.--No estimated daily discharges. Records fair. Occasional regulation at low flow. Diversion upstream from station at Arcola by Hackensack Water Company, for municipal supply (records given herein). The flow past this station is affected by pumpage from wells by Hackensack Water Company and others. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 31	2045	1,440	5.06	Sep. 3	2345	*1,990	*6.13
June 6	0200	1,580	5.29				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	40	41	52	47	53	102	67	407	43	251	42
2	34	37	43	52	44	54	94	71	130	39	74	41
3	34	37	413	52	47	48	88	73	96	44	65	416
4	35	37	292	79	46	48	84	67	82	76	79	570
5	111	36	111	73	47	46	81	64	322	47	62	98
6	157	35	89	59	44	46	76	63	744	44	52	75
7	63	36	79	53	45	86	72	59	178	36	49	68
8	43	37	73	50	46	97	72	94	135	32	48	67
9	37	37	75	61	44	64	71	184	138	173	273	62
10	35	46	143	59	41	66	76	91	104	42	119	72
11	52	69	84	50	44	358	125	76	91	34	112	137
12	76	44	71	45	40	126	87	67	84	36	110	69
13	41	35	78	49	37	83	75	62	79	73	61	58
14	35	36	73	121	40	73	70	57	74	57	85	54
15	56	33	63	77	78	66	68	53	70	59	66	51
16	65	29	63	56	234	61	75	113	59	218	75	50
17	126	32	57	51	82	59	97	77	44	55	87	50
18	108	33	57	53	67	57	121	64	43	55	174	50
19	54	37	53	46	64	71	118	58	109	40	80	60
20	41	35	46	49	61	69	87	56	74	44	65	53
21	38	58	46	47	56	63	80	54	52	42	57	47
22	37	316	46	46	55	58	82	52	44	38	56	53
23	36	388	52	104	54	67	98	51	41	135	52	117
24	35	100	53	168	53	54	80	77	89	100	49	53
25	34	73	51	72	65	59	167	132	61	57	48	45
26	43	58	48	56	164	123	94	64	48	62	96	83
27	43	48	48	53	86	504	83	64	181	139	101	83
28	41	47	42	55	66	154	76	56	87	62	77	79
29	36	43	75	51	56	108	71	51	52	49	72	53
30	36	40	83	52	---	95	69	46	45	50	51	48
31	38	---	59	51	---	134	---	617	---	119	45	---
TOTAL	1654	1932	2607	1942	1853	3050	2639	2780	3763	2100	2691	2804
MEAN	53.4	64.4	84.1	62.6	63.9	98.4	88.0	89.7	125	67.7	86.8	93.5
MAX	157	388	413	168	234	504	167	617	744	218	273	570
MIN	34	29	41	45	37	46	68	46	41	32	45	41
(†)	10.6	13.7	6.88	5.24	8.24	13.2	0	2.23	10.8	16.3	0	0
MEAN*	64.0	78.1	91.0	67.8	72.1	112	88.0	91.9	136	84.0	86.8	93.5
IN*	1.35	1.59	1.92	1.43	1.42	2.36	1.79	1.94	2.77	1.77	1.83	1.91

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1992, BY WATER YEAR (WY)

MEAN	64.9	88.6	99.7	104	119	155	155	119	84.9	72.2	69.3	69.2
MAX	257	284	301	331	258	333	457	315	336	371	225	256
(WY)	1956	1978	1984	1979	1973	1953	1983	1984	1972	1945	1955	1971
MIN	16.5	25.5	17.0	12.1	38.1	40.1	32.9	44.9	31.8	14.1	15.1	11.4
(WY)	1936	1982	1981	1981	1980	1981	1985	1941	1965	1966	1966	1932

01391500 SADDLE RIVER AT LODI, NJ--Continued

WATER-DISCHARGE RECORDS--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1924 - 1992	
ANNUAL TOTAL	34969		29582			
ANNUAL MEAN	95.8		80.8		99.9	
ANNUAL MEAN*	99.9		88.8		102	
HIGHEST ANNUAL MEAN					187	1984
LOWEST ANNUAL MEAN					45.2	1981
HIGHEST DAILY MEAN	1490	Mar 4	737	Jun 6	2970	Apr 5 1984
LOWEST DAILY MEAN	12	Sep 18	29	Nov 16	6.0	Aug 4 1930
ANNUAL SEVEN-DAY MINIMUM	16	Sep 12	34	Nov 13	8.9	Sep 9 1932
INSTANTANEOUS PEAK FLOW			1990	Sep 3	4500	Nov 9 1977
INSTANTANEOUS PEAK STAGE			6.13	Sep 3	12.36a	Nov 9 1977
INSTANTANEOUS LOW FLOW			25	Nov 16	1.0	May 25 1938
ANNUAL RUNOFF (INCHES)	23.83	Unadjusted	20.15	Unadjusted	24.86	Unadjusted
ANNUAL RUNOFF (INCHES)*	25.23		22.31		---	
10 PERCENT EXCEEDS	159		124		191	
50 PERCENT EXCEEDS	75		59		69	
90 PERCENT EXCEEDS	34		38		26	

a From high-water mark in gage house.
† Diversion, equivalent in cubic feet per second, above station by Hackensack Water Company for municipal supply. Records provided by Hackensack Water Company.
* Adjusted for diversion.

01391500 SADDLE RIVER AT LODI, NJ--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
31...	1030	35	693	7.8	10.0	8.5	76	2.6	700	<200
JAN 1992										
16...	1100	49	675	7.6	0.5	12.2	86	--	330	3
APR										
02...	1200	91	600	8.0	9.0	12.9	114	3.2	50	<10
MAY										
21...	1100	52	630	7.6	19.0	9.0	96	E1.5	1700	60
JUL										
27...	1115	135	400	7.9	21.0	7.7	88	3.8	9200	--

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
31...	210	59	16	48	5.9	144	35	84	0.1
JAN 1992									
16...	190	54	14	51	4.7	144	35	95	0.1
APR									
02...	170	47	12	49	2.7	108	28	95	0.2
MAY									
21...	190	52	15	44	4.5	127	34	79	0.1
JUL									
27...	120	35	9.1	26	2.3	90	20	49	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
31...	13	377	0.429	0.428	6.47	6.54	1.04	0.87	--
JAN 1992									
16...	13	371	0.190	0.186	2.82	2.92	4.10	3.50	5.0
APR									
02...	8.2	323	0.051	0.049	3.74	3.48	0.45	0.53	1.2
MAY									
21...	9.8	340	0.295	0.300	5.32	5.21	2.28	1.57	2.3
JUL									
27...	8.1	213	0.064	0.061	2.16	2.15	0.11	0.13	0.8

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
31...	1.3	--	7.9	0.79	0.69	5.0	0.4	10	0.95
JAN 1992									
16...	3.7	7.8	6.6	0.35	0.04	5.0	0.1	6	0.79
APR									
02...	0.90	4.9	4.4	--	0.28	3.7	0.5	4	0.98
MAY									
21...	1.6	7.6	6.8	0.03	0.08	4.5	0.7	--	--
JUL									
27...	0.30	3.0	2.5	0.37	0.30	24	1.8	30	11

01391500 SADDLE RIVER AT LODI, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)
OCT 1991										
31...	1030	--	<1	1	12	290	310	<0.1	3.5	--
31...	1030	23	--	--	--	--	--	--	--	<1

DATE	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991										
31...	3	--	--	--	<1	--	5	5	10	--
31...	--	<10	120	<1	--	1	--	--	--	210

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991										
31...	3500	--	40	--	490	--	0.02	--	<10	--
31...	--	4	--	80	--	<0.10	--	1	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
31...	<1	--	50	160	<1.0	<0.1	74	3.4	3.9	3.3
31...	--	30	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
31...	1.2	<0.1	<0.1	<0.1	<1.0	<0.1	<10	<0.1	<1.00	10
31...	--	--	--	--	--	--	--	--	--	--

01392210 THIRD RIVER AT PASSAIC, NJ

LOCATION.--Lat 40°49'47", long 74°08'32", Passaic County, Hydrologic Unit 02030103, on right bank 400 ft upstream from bridge on State Highway 3, 0.8 mi south of Passaic, 1.2 mi upstream from Passaic River.

DRAINAGE AREA.--11.8 mi^2.

PERIOD OF RECORD.--May 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 22.15 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Some regulation from ponds upstream. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 550 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 31	1415	604	4.35	Aug. 9	0845	583	4.30
June 5	2015	*1,310	*6.07				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	5.8	7.5	6.7	6.6	7.2	13	9.7	21	12	18	e5.4
2	7.4	5.5	13	6.7	6.7	7.4	12	11	11	9.4	9.1	e5.6
3	7.3	5.9	141	6.5	6.5	7.3	11	9.6	9.9	19	11	e58
4	7.0	5.6	37	22	6.5	7.2	10	9.2	8.9	38	11	e18
5	17	5.5	12	10	6.5	7.0	9.9	9.9	363	10	7.5	e7.9
6	29	5.5	10	7.4	6.3	7.0	9.9	8.9	216	15	6.8	e6.6
7	8.6	5.4	9.2	6.9	6.3	31	9.8	8.9	30	9.5	5.3	e7.0
8	7.1	5.5	8.2	6.7	6.3	11	9.7	43	28	9.3	5.5	e6.9
9	7.0	5.4	13	11	6.0	7.8	10	32	17	65	e180	e6.5
10	7.0	8.0	34	8.2	6.3	17	9.9	17	14	11	e10	e22
11	13	24	9.0	6.6	6.7	83	25	10	13	9.5	e16	e33
12	13	7.9	8.3	6.4	7.4	12	9.8	9.2	15	9.6	e9.3	e9.4
13	6.9	6.4	23	6.4	9.9	9.6	8.8	8.9	14	10	e7.5	e9.0
14	6.5	5.9	11	50	7.7	9.2	8.7	8.8	12	19	e18	e7.5
15	13	5.9	8.3	9.0	49	8.7	8.6	8.4	12	19	e8.8	e6.8
16	11	5.5	7.9	7.5	35	8.6	15	16	11	23	e16	e6.2
17	45	5.0	7.7	9.7	9.3	8.4	16	9.7	11	8.3	e20	e6.2
18	10	5.1	7.5	6.7	8.9	8.1	11	8.5	11	11	e35	e6.5
19	7.4	5.3	7.4	6.9	10	14	11	8.6	40	7.6	e8.5	e7.6
20	6.5	5.6	7.3	6.9	7.9	16	9.2	8.3	14	8.1	e8.0	e5.4
21	6.5	19	6.6	6.9	7.3	11	9.5	8.1	11	7.2	e7.3	e5.3
22	6.6	138	6.9	6.7	7.1	9.7	12	7.5	11	7.1	e6.8	e10
23	22	43	6.7	41	7.0	14	11	7.0	11	27	e6.4	19
24	7.9	10	6.6	21	7.1	10	16	9.4	44	11	e6.1	5.8
25	6.0	8.4	6.4	7.9	11	12	32	12	30	7.7	e6.5	5.9
26	6.5	8.1	6.8	7.5	36	58	10	9.0	23	11	e16	46
27	6.1	7.5	6.0	7.4	9.4	76	9.8	8.6	46	11	e13	15
28	5.6	7.2	6.3	7.1	8.1	18	9.7	7.6	45	7.4	e8.1	9.0
29	5.8	7.0	29	7.0	7.6	14	9.4	7.1	34	6.6	e8.6	6.0
30	6.0	6.8	13	6.9	---	13	9.3	7.4	38	6.2	e6.0	5.6
31	5.7	---	7.4	6.9	---	24	---	183	---	39	e5.9	---
TOTAL	322.1	389.7	484.0	334.5	316.4	547.2	357.0	522.3	1164.8	464.5	502.0	369.1
MEAN	10.4	13.0	15.6	10.8	10.9	17.7	11.9	16.8	38.8	15.0	16.2	12.3
MAX	45	138	141	50	49	83	32	183	363	65	180	58
MIN	5.6	5.0	6.0	6.4	6.0	7.0	8.6	7.0	8.9	6.2	5.3	5.3
CFSM	.88	1.10	1.32	.91	.92	1.50	1.01	1.43	3.29	1.27	1.37	1.04
IN.	1.02	1.23	1.53	1.05	1.00	1.73	1.13	1.65	3.67	1.46	1.58	1.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

MEAN	16.4	22.6	20.4	22.3	19.3	24.6	28.4	28.7	18.8	17.6	19.2	16.1
MAX	34.3	66.1	60.2	64.3	31.0	48.1	70.4	56.4	38.8	31.7	44.1	29.3
(WY)	1990	1978	1984	1979	1984	1983	1983	1989	1992	1984	1978	1989
MIN	6.00	9.31	7.55	7.25	10.4	9.94	7.56	12.9	9.61	9.58	7.44	8.43
(WY)	1983	1982	1981	1981	1985	1985	1985	1982	1987	1977	1981	1982

01392210 THIRD RIVER AT PASSAIC, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1977 - 1992	
ANNUAL TOTAL	6777.1		5773.6			
ANNUAL MEAN	18.6		15.8		21.2	
HIGHEST ANNUAL MEAN					32.7	1978
LOWEST ANNUAL MEAN					13.7	1985
HIGHEST DAILY MEAN	267	Mar 4	363	Jun 5	798	Nov 8 1977
LOWEST DAILY MEAN	4.5	Sep 18	5.0	Nov 17	3.9	Sep 16 1980
ANNUAL SEVEN-DAY MINIMUM	5.0	Aug 2	5.5	Nov 14	4.4	Sep 10 1980
INSTANTANEOUS PEAK FLOW			1310	Jun 5	2300a	Nov 8 1977
INSTANTANEOUS PEAK STAGE			6.07	Jun 5	8.25	Nov 8 1977
INSTANTANEOUS LOW FLOW			1.8	Dec 27	.84	Jul 3 1981
ANNUAL RUNOFF (CFSM)	1.57		1.34		1.80	
ANNUAL RUNOFF (INCHES)	21.37		18.20		24.46	
10 PERCENT EXCEEDS	33		30		39	
50 PERCENT EXCEEDS	10		8.9		11	
90 PERCENT EXCEEDS	5.5		6.1		6.2	

a From rating curve extended above 700 ft^3/s by culvert computation at bridge on Kingsland Street, 0.2 mi upstream of gage.
e Estimated.

RESERVOIRS IN PASSAIC RIVER BASIN

01379990 SPLITROCK RESERVOIR.--Lat 40°57'40", long 74°27'45", Morris County, Hydrologic Unit 02030103, at dam on Beaver Brook, 2 mi northeast of Hibernia. DRAINAGE AREA, 5.50 mi^2. PERIOD OF RECORD, September 1925 to September 1931, December 1948 to September 1950, October 1953 to current year. Monthend contents only 1925-31, 1948-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, water-stage recorder. Datum of gage is sea level.
REMARKS.--Reservoir is formed by a concrete gravity dam with earth embankment; present dam constructed 1946-48 and sluice gate first closed Dec. 22, 1948. Prior to 1946, reservoir was formed by earthfill dam with crest about 20 ft lower. Capacity of spillway level, 3,310,000,000 gal, elevation, 835 ft. Flow is regulated by two 30-inch sluice gates. Flow is released for diversion for municipal supply of Jersey City.
COOPERATION.--Records provided by Jersey City, Bureau of Water.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,652,500,000 gal, Apr. 5, 1973, elevation, 836.75 ft; minimum, 1,522,800,000 gal, Jan. 4, 1954, elevation, 824.20 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,445,000,000 gal, June 6, elevation, 835.70 ft; minimum, 3,058,000,000 gal, Nov. 10, 14-21, elevation, 833.75 ft.

01380900 BOONTON RESERVOIR.--Lat 40°53'45", long 74°23'55", Morris County, Hydrologic Unit 02030103, at dam on Rockaway River at Boonton. DRAINAGE AREA, 119 mi^2. PERIOD OF RECORD, April 1904 to September 1950, October 1953 to current year. Monthend contents only 1904-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. REVISED RECORDS.--WDR NJ-85-1: 1984. GAGE, hook gage. Datum of gage is sea level.
REMARKS.--Reservoir is formed by a cyclopean masonry dam with earth wings; dam completed and storage began in 1904. Total capacity at spillway level, 7,620,000,000 gal elevation, 305.25 ft of which 7,366,000,000 gal is usable contents above elevation 259.75 ft, sill of lowest outlet gate. Spillway is topped with two Bascule gates, 2 ft high; prior to 1952, flashboards were used. Flow regulated by Bascule gates, three outlets in gatehouse at head of conduit and by two 48-inch pipes (bottom of sluice pipes at elevation 205 ft). Water is diverted from reservoir for municipal supply of Jersey City.
COOPERATION.--Records provided by Jersey City, Bureau of Water.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,545,600,000 gal, May 31, 1984, elevation, 308.81 ft; minimum, 1,445,000,000 gal, Jan. 31, 1981, elevation 274.71 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,291,000,000 gal, June 6, elevation, 308.42 ft; minimum, 4,570,000,000 gal, Nov. 21, 22, elevation, 292.94 ft.

01382100 CANISTEAR RESERVOIR.--Lat 41°06'30", long 74°29'30", Sussex County, Hydrologic Unit 02030103, at dam on Pacock Brook, 1.8 mi northeast of Stockholm. DRAINAGE AREA, 5.6 mi^2. PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents 1923-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is sea level.
REMARKS.--Reservoir is formed by earth-embankment type dam, completed about 1896. Capacity at spillway level, 2,407,000,000 gal, elevation, 1,086.0 ft. Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and for diversion at Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply for City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam.
COOPERATION.--Records provided by City of Newark, Division of Water Supply.

01382200 OAK RIDGE RESERVOIR.--Lat 41°02'30", long 74°30'10", Passaic County, Hydrologic Unit 02030103, at dam on Pequannock River, 0.9 mi southwest of Oak Ridge. DRAINAGE AREA, 27.3 mi^2. PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents only 1924-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is sea level.
REMARKS.--Reservoir is formed by earthfill dam with concrete-core wall and ogee overflow section; dam constructed between 1880-92; dam raised 10 ft during 1917-19. Capacity at spillway level, 3,895,000,000 gal, elevation, 846.0 ft. Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and diversion at Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply of City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam.
COOPERATION.--Records provided by City of Newark, Division of Water Supply.

01382300 CLINTON RESERVOIR.--Lat 41°04'30", long 74°27'00", Passaic County, Hydrologic Unit 02030103, at dam on Clinton Brook, 2.0 mi north of Newfoundland. DRAINAGE AREA, 10.5 mi^2. PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents only 1923-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is sea level.
REMARKS.--Reservoir is formed by earthfill dam constructed between 1889-92. Capacity at spillway level, 3,518,000,000 gal, elevation, 992.0 ft. Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and for diversion at Charlotteburg Reservoir since May 21, 1961, for municipal supply of City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam.
COOPERATION.--Records provided by City of Newark, Division of Water Supply.

01382380 CHARLOTTEBURG RESERVOIR.--Lat 41°01'34", long 74°25'30", Passaic County, Hydrologic Unit 02030103, at dam on Pequannock River, 1.1 mi upstream from Macopin River, and 1.5 mi southeast of Newfoundland, NJ. DRAINAGE AREA, 56.2 mi^2. PERIOD OF RECORD, May 1961 to current year. REVISED RECORDS.--WRD NJ-74: Station number. GAGE, water-stage recorder. Datum of gage is sea level.
REMARKS.--Reservoir is formed by concrete-masonry dam and earth embankment, with concrete spillway at elevation 738.00 ft; storage began May 19, 1961. Spillway equipped with Bascule gate 5 ft high. Capacity, 2,964,000,000 gal, elevation, 743.00 ft, top of Bascule gate. No dead storage. Outflow is controlled by sluice and automatic Bascule gates. Water diverted from reservoir since May 21, 1961, for municipal supply of City of Newark.
COOPERATION.--Records provided by City of Newark, Division of Water Supply.

RESERVOIRS IN PASSAIC RIVER BASIN--Continued

01382400 ECHO LAKE.--Lat 41°03'00", long 74°24'30", Passaic County, Hydrologic Unit 02030103, at Echo Lake Dam on Macopin River, 1.6 mi north of Charlotteburg, and 1.9 mi upstream from mouth. DRAINAGE AREA, 4.35 mi^2. PERIOD OF RECORD, October 1927 to September 1950, October 1953 to current year. Monthend contents only 1928-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is sea level.
REMARKS.--Lake is formed by earth-embankment type dam completed about 1925. Capacity at spillway level, 1,583,000,000 gal, elevation, 893.0 ft, with provision for additional storage of 180,000,000 gal at elevation 894.9 ft with flashboards. Usable contents, 1,045,000,000 gal above elevation 880.0 ft. Lake used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and water diverted to Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply of City of Newark. Outflow to Macopin River controlled by operation of gates in gatehouse at dam and water released through pipe and canal to Charlotteburg Reservoir.
COOPERATION.--Records provided by City of Newark, Division of Water Supply.

01383000 GREENWOOD LAKE.--Lat 41°09'36", long 74°20'03", Passaic County, Hydrologic Unit 02030103, in gatehouse near right end of Greenwood Lake Dam on Wanaque River at Awosting. DRAINAGE AREA, 27.1 mi^2. PERIOD OF RECORD, June 1898 to November 1903, June 1907 to current year (gage heights only prior to October 1953). GAGE, water-stage recorder. Datum of gage is 608.86 ft above sea level (levels from New Jersey Geological Survey bench mark). Prior to Oct. 1, 1931, staff gage on former railroad bridge at site 100 ft upstream at datum 89.75 ft lower.
REMARKS.--Reservoir is formed by earthfill dam with concrete spillway; dam completed about 1837 and reconstruction completed in 1928 with crest of spillway 0.25 ft lower. Usable capacity, 6,860,000,000 gal between gage heights -4.00 ft, sill of gate, and 10.00 ft, crest of spillway. Dead storage, 7,140,000,000 gal. Outflow mostly regulated by two gates, 3.5 by 5.0 ft. Records given herein represent usable capacity. Lake used for recreation.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,528,000,000 gal, Oct. 9-14, 1903, gage height, 14.25 ft, present datum; minimum, 3,160,000,000 gal, several days in November 1900, gage height, 3.50 ft, present datum.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,104,000,000 gal, June 6, gage height, 11.99 ft; minimum, 6,738,000,000 gal, Oct. 2, gage height, 9.80 ft.

01384002 MONKSVILLE RESERVOIR.--Lat 41°07'20", long 74°17'49", Passaic County, Hydrologic Unit 02030103, at dam on Wanaque River at Monks. DRAINAGE AREA, 40.4 mi^2. PERIOD OF RECORD, September 1988 to current year. GAGE, measurement from reference point. Datum of gage is sea level.
REMARKS.--Reservoir is formed by a Roller Compacted Concrete dam constructed in 1988. Total capacity at spillway level, 7,000,000,000 gal, elevation 400.0 ft. Reservoir used for storage and water released to Wanaque Reservoir. Outflow is controlled by a 60-inch fixed-cone valve in a 72-inch pipe and 10-inch cone valve which can discharge directly into Wanaque Reservoir or into the 72-inch pipe.
COOPERATION.--Records provided by North Jersey District Water Supply Commission.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,140,000,000 gal, Nov. 21, 1989, elevation 400.9 ft; minimum, 860,000,000, Sept. 28, 1988 (first filling), elevation 339.0 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 7,000,000,000 gal, many days, elevation 400.0 ft; minimum, 7,000,000,000 gal, many days, elevation 400.0 ft.

01386990 WANAQUE RESERVOIR.--Lat 41°02'42", long 74°17'44", Passaic County, Hydrologic Unit 02030103, at Raymond Dam on Wanaque River at Wanaque. DRAINAGE AREA, 90.4 mi^2. PERIOD OF RECORD, February 1928 to September 1950, October 1953 to current year. Monthend contents only 1928-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, water-stage recorder. Datum of gage is sea level (levels by North Jersey District Water Supply Commission).
REMARKS.--Reservoir is formed by earthfill with concrete-core wall main dam and seven secondary dams; dams completed in 1927 and storage began in March 1928. Total capacity at spillway level, 29,630,000,000 gal, revised, elevation, 302.4 ft, revised, prior to 1986, 300.3 ft. Capacity available by gravity at spillway level, 27,850,000,000 gal, revised. Outflow mostly controlled by sluice gates in intake conduits in gage house. Water is diverted from reservoir for municipal supply. Diversion to reservoir from Posts Brook, Pompton River, and Ramapo River (see Passaic River basin, diversions).
COOPERATION.--Records provided by North Jersey District Water Supply Commission.
REVISED RECORDS.--WDR NJ-85-1: 1984 (M).
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,280,000,000 gal, Apr. 5, 1984, elevation, 304.52 ft; minimum, 5,110,000,000 gal, Dec. 26, 1964, elevation, 256.06 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 30,380,000,000 gal, June 6, elevation, 303.37 ft; minimum, 12,230,000,000 gal, Oct. 1, elevation, 274.50 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)*	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)*	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01379990 SPLITROCK RESERVOIR			01380900 BOONTON RESERVOIR			01382100 CANISTEAR RESERVOIR		
Sept. 30...	834.10	3,128	--	297.65	5,607	--	1,084.00	2,202	--
Oct. 31...	833.90	3,088	-2.0	295.73	5,173	-21.7	1,084.00	2,202	0
Nov. 30...	834.20	3,148	+3.1	294.88	4,987	-9.6	1,075.10	1,369	-43.0
Dec. 31...	835.05	3,316	+8.4	300.87	6,383	+69.7	1,070.00	940	-21.4
CAL YR 1991			-.3			-5.3			-6.3
Jan. 31...	835.15	3,336	+1.0	305.40	7,515	+56.5	1,068.50	825	-5.7
Feb. 29...	835.20	3,346	+.5	305.37	7,507	-.4	1,062.70	432	-21.0
Mar. 31...	835.35	3,375	+1.4	306.10	7,693	+9.3	1,067.90	779	+17.3
Apr. 30...	835.15	3,336	-2.0	307.42	8,032	+17.5	1,072.90	1,180	+20.7
May 31...	835.15	3,336	0	307.25	7,988	-2.2	1,074.90	1,351	+8.5
June 30...	835.05	3,316	-1.0	307.44	8,037	+2.5	1,079.90	1,803	+23.3
July 31...	835.05	3,316	0	307.06	7,939	-4.9	1,080.90	1,896	+4.6
Aug. 31...	834.90	3,286	-1.5	306.69	7,844	-4.7	1,081.40	1,944	+2.4
Sept. 30...	834.90	3,286	0	306.73	7,854	+.5	1,081.40	1,944	0
WTR YR 1992			+.7			+9.5			-1.1

RESERVOIRS IN PASSAIC RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)
	01382200 OAK RIDGE RESERVOIR			01382300 CLINTON RESERVOIR			01382380 CHARLOTTEBURG RESERVOIR		
Sept. 30...	825.70	1,410	--	978.40	1,888	--	732.90	1,916	--
Oct. 31...	812.90	483	-46.3	977.30	1,774	-5.7	732.70	1,899	-0.8
Nov. 30...	824.30	1,283	+41.2	977.20	1,764	-.5	731.60	1,802	-5.0
Dec. 31...	831.80	2,049	+38.2	981.50	2,218	+22.7	731.00	1,750	-2.6
CAL YR 1991			-7.9			-5.7			-5.4
Jan. 31...	832.50	2,130	+4.0	984.70	2,573	+17.7	734.25	2,040	+14.5
Feb. 29...	836.50	2,618	+26.0	985.30	2,644	+3.8	734.35	2,049	+.5
Mar. 31...	843.60	3,558	+46.9	986.30	2,768	+6.2	740.65	2,692	+32.1
Apr. 30...	846.00	3,895	+17.4	986.30	2,768	0	743.10	2,977	+14.7
May 31...	846.10	3,909	+.7	990.30	3,300	+26.5	742.60	2,918	-2.9
June 30...	846.10	3,909	0	992.10	3,531	+11.9	739.40	2,557	-18.6
July 31...	846.10	3,909	0	991.10	3,403	-6.4	733.00	1,925	-31.5
Aug. 31...	846.00	3,895	-.7	986.50	2,795	-30.3	732.05	1,841	-4.2
Sept. 30...	836.80	2,657	-63.8	986.00	2,728	-3.5	737.05	2,308	+24.1
WTR YR 1992			+5.3			+3.6			+1.7

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)**	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)
	01382400 ECHO LAKE			01383000 GREENWOOD LAKE			01384002 MONKSVILLE RESERVOIR		
Sept. 30...	892.90	1,574	--	9.82	6,750	--	400.0	7,000	--
Oct. 31...	891.60	1,458	-5.8	10.15	6,953	+10.1	400.0	7,000	0
Nov. 30...	888.70	1,210	-12.8	10.25	7,015	+3.2	400.0	7,000	0
Dec. 31...	886.70	1,046	-8.2	10.15	6,953	-3.1	400.0	7,000	0
CAL YR 1991			-2.4			-.8			-.4
Jan. 31...	887.80	1,138	+4.6	a10.31	7,052	+4.9	400.0	7,000	0
Feb. 29...	888.50	1,193	+2.9	10.24	7,009	-2.3	400.0	7,000	0
Mar. 31...	890.30	1,344	+7.5	10.48	7,158	+7.4	400.0	7,000	0
Apr. 30...	891.40	1,440	+5.0	10.21	6,990	-8.7	400.0	7,000	0
May 31...	892.20	1,511	+3.5	10.59	7,226	+11.8	400.0	7,000	0
June 30...	893.10	1,592	+4.2	10.22	6,996	-11.9	400.0	7,000	0
July 31...	893.10	1,592	0	10.14	6,947	-2.4	400.0	7,000	0
Aug. 31...	893.00	1,583	-.5	10.09	6,916	-1.5	400.0	7,000	0
Sept. 30...	891.20	1,423	-8.3	10.00	6,860	-2.9	400.0	7,000	0
WTR YR 1992			-.6			+.5			0

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)
	01386990 WANAQUE RESERVOIR		
Sept. 30...	274.28	12,130	--
Oct. 31...	279.54	14,750	+131
Nov. 30...	280.96	15,490	+38.2
Dec. 31...	290.70	21,280	+289
CAL YR 1991			-23.7
Jan. 31...	292.83	22,690	+70.4
Feb. 29...	296.90	25,510	+150
Mar. 31...	300.18	27,920	+120
Apr. 30...	301.54	28,970	+54.1
May 31...	300.78	28,380	-29.4
June 30...	300.61	28,250	-6.7
July 31...	295.73	24,680	-178
Aug. 31...	291.58	21,800	-144
Sept. 30...	286.93	18,890	-150
WTR YR 1992			+28.6

a Observed.
* Elevation at 0900.
** Gage height at 2400.
† Elevation at 0800 on first day of following month.

DIVERSIONS WITHIN PASSAIC RIVER BASIN

01368720 North Jersey District Water Supply Commission diverts water from Upper Greenwood Lake (Hudson River basin) near Moe, NJ to the Green Brook, a tributary of Greenwood Lake, for municipal supply. Consult North Jersey District Water Supply Commission for data available.

01379510 New Jersey-American Water Company diverts water from Passaic River, 1.2 mi upstream from Canoe Brook for municipal supply. These figures also include water diverted from the Passaic River by the Bernards Division of the Commonwealth Water Company. Records provided by New Jersey-American Water Company.

01379530 New Jersey-American Water Company diverts water from Canoe Brook near Summit, 0.5 mi from mouth, for municipal supply. Records provided by New Jersey-American Water Company.

01380800 Jersey City diverts water from Boonton Reservoir on Rockaway River at Boonton for municipal supply. Records provided by Jersey City, Bureau of Water.

01382370 City of Newark diverts water from Charlotteburg Reservoir on Pequannock River since May 21, 1961 for municipal supply. Prior to May 21, 1961 water was diverted from reservoir formed by Macopin intake dam on Pequannock River (former diversion 01382490). Records provided by City of Newark, Division of Water Supply.
REVISED RECORDS.--WDR NJ-82-1: Station number.

01386980 North Jersey District Water Supply Commission diverts water for municipal supply from Wanaque Reservoir on Wanaque River. Records provided by North Jersey District Water Supply Commission.

01387020 North Jersey District Water Supply Commission diverts water from Post Brook near Wanaque into Wanaque Reservoir for municipal supply. Records not available.

01387990 North Jersey District Water Supply Commission diverts water from Ramapo River by pumping from Pompton Lakes into Wanaque Reservoir. Records provided by North Jersey District Water Supply Commission.

01388490 Passaic Valley Water Commission supplements the dependable yield of its supply at Little Falls by diverting water at high flows at the Jackson Avenue Pumping Station into Point View Reservoir on Haycock Brook for release as required to sustain minimum flow requirements. Also water may be released into Haycock Brook for maintenance of flow in that stream. These diversions and releases occur upstream of Pompton Plains gaging station. Records provided by Passaic Valley Water Commission. No diversion or release during the year.
REVISED RECORDS.--WDR NJ-82-1: Station number.

01388980 North Jersey District Water Supply Commission diverts water from the Wanaque South pumping station on the Pompton River at Two Bridges, 750 ft upstream from the Passaic River, to Wanaque Reservoir since January 1987. Record provided by the North Jersey District Water Supply Commission.

01388981 Hackensack Water Company diverts water from the Wanaque South pumping station on the Pompton River at Two Bridges, 750 ft upstream from the Passaic River, to Oradell Reservoir. Water can also be diverted from Wanaque Reservoir to Oradell Reservoir in the Hackensack River basin. Figures given herein include diversion from both sources. Prior to water year 1989, diversion was from Ramapo River at Pompton Lakes. Records provided by the Hackensack Water Company.

01389490 The Passaic Valley Water Commission diverts water from Passaic River above Beattie's Dam at Little Falls for municipal supply. Records provided by Passaic Valley Water Commission.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	01379510 NJ-AMERICAN WATER COMPANY FROM PASSAIC RIVER	01379530 NJ-AMERICAN WATER COMPANY FROM CANOE BROOK	01380800 JERSEY CITY	01382370 NEWARK
October	3.94	7.47	72.7	91.3
November	9.67	7.56	72.7	65.6
December	16.2	7.04	76.2	63.5
CAL YR 1991	11.1	6.36	73.2	77.3
January	10.4	8.12	72.4	65.9
February	18.7	12.3	73.1	65.7
March	16.3	10.1	73.8	50.9
April	3.68	7.90	70.3	55.3
May	1.20	11.9	70.1	53.9
June	2.59	12.7	73.1	78.5
July	.81	11.4	76.3	78.3
August	0	9.31	75.5	73.2
September	0	12.4	75.6	75.8
WTR YR 1992	6.93	9.80	73.5	68.2

DIVERSIONS WITHIN PASSAIC RIVER BASIN--Continued

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992, Continued

MONTH	01386980 WANAQUE RESERVOIR	01387990 RAMAPO RIVER TO WANAQUE RESERVOIR	01388980 POMPTON RIVER TO WANAQUE RESERVOIR	01388981* POMPTON RIVER TO ORADELL RESERVOIR	01389490 PASSAIC VALLEY WATER COMMISSION
October.....	166	61.9	221	15.0	80.5
November.....	163	9.4	147	14.5	70.1
December.....	162	100	189	1.4	70.1
CAL YR 1991.....	166	14.3	61.6	17.1	75.6
January.....	166	94.7	.4	0	75.4
February.....	174	73.0	164	0	61.2
March.....	179	71.2	40.2	40.5	61.2
April.....	169	91.3	0	29.5	75.9
May.....	166	91.3	48.3	58.6	72.6
June.....	172	0	6.2	29.4	76.1
July.....	168	0	0	42.7	75.7
August.....	168	0	0	11.6	81.8
September.....	165	0	0	0	79.2
WTR YR 1992.....	168	49.4	68.0	20.3	73.4

* Diversion is to the Hackensack River basin.

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ

LOCATION.--Lat 40°40'30", long 74°13'20", Union County, Hydrologic Unit 02030104, on left bank at Ursino Lake Dam in Elizabeth, 75 ft upstream of bridge on Trotters Lane and 3.8 mi upstream from mouth.

DRAINAGE AREA.--16.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year.

REVISED RECORDS.--WSP 1552: Drainage area, 1922-23, 1927-29(M), 1932, 1933-34(M), 1938(P), 1942(M) 1944(P), 1945(M), 1948(P), 1952-53(M). WDR NJ-84-1: 1974.

GAGE.--Water-stage recorder, two crest-stage gages, and two concrete weirs. The right concrete weir was lowered 5 ft on Dec. 18, 1985. Datum of gage is sea level (levels by Corps of Engineers). Prior to Oct. 1, 1922, nonrecording gage at site 2,800 ft downstream at datum 4.14 ft higher and Oct. 1, 1922 to May 18, 1923, at same site at datum 5.23 ft higher. May 19, 1923 to Dec. 27, 1972, at site 2,800 ft downstream at datum 5.23 ft higher and published as "Elizabeth River at Elizabeth" (station 01393500), drainage area 18.0 mi^2.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversion by pumpage from Hammock Well Field in Union for municipal supply by Elizabethtown Water Co., probably reduces the flow past the station. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	2030	*2,080	*19.58	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	5.0	9.5	6.6	5.2	5.3	11	6.8	31	6.5	20	4.5
2	6.8	5.0	20	6.0	4.7	5.5	9.4	8.2	15	6.0	7.4	4.6
3	6.5	4.5	249	5.9	5.0	5.7	8.1	6.2	9.4	53	14	52
4	6.1	4.8	45	33	5.1	5.4	7.2	6.6	7.5	37	9.6	12
5	28	4.8	15	10	6.7	5.3	6.7	8.0	568	8.0	7.0	6.0
6	27	5.0	10	7.3	5.1	5.0	6.8	6.6	238	32	6.1	4.5
7	8.0	4.7	8.1	6.3	5.1	51	7.8	6.5	44	6.9	5.8	4.5
8	6.5	4.7	7.1	5.9	6.5	9.3	7.4	60	31	6.1	5.7	4.6
9	6.3	4.5	13	19	4.9	6.9	9.4	25	15	154	38	4.7
10	5.9	9.6	49	7.4	5.0	27	8.2	29	11	16	10	45
11	26	48	9.1	5.8	5.3	73	35	9.2	9.6	8.6	17	42
12	9.6	7.3	7.5	5.3	5.2	11	8.0	7.2	8.9	6.9	8.7	14
13	5.6	6.1	34	5.6	5.2	7.5	6.5	7.1	8.2	9.7	6.2	8.7
14	5.5	5.1	20	42	9.2	6.5	6.3	6.6	7.6	61	26	6.6
15	19	5.0	9.5	8.7	53	5.8	6.4	6.1	7.9	105	11	5.6
16	9.8	e4.8	7.4	7.0	37	5.8	35	69	7.4	31	24	4.9
17	57	e4.7	6.7	6.5	9.4	5.7	27	12	7.4	11	28	4.8
18	e12	e4.8	6.4	6.0	7.7	5.6	12	8.0	7.1	13	58	4.5
19	e6.1	e4.9	5.9	15	8.8	26	14	6.5	34	7.7	8.1	5.0
20	6.0	5.1	5.8	5.8	6.4	32	7.9	6.2	13	7.2	6.0	4.1
21	5.9	11	5.9	5.7	5.8	14	7.5	5.8	7.4	6.8	5.5	4.1
22	5.6	171	5.6	5.6	5.4	10	19	6.0	6.8	7.1	5.1	12
23	5.7	34	5.9	51	5.2	24	10	5.7	6.6	69	4.7	23
24	5.5	12	5.6	23	5.8	11	30	18	40	12	4.9	6.0
25	5.4	7.8	5.3	8.2	14	12	15	12	8.7	6.9	5.5	5.5
26	5.1	6.5	5.3	7.2	52	118	7.0	9.3	6.8	7.5	30	114
27	5.0	5.8	5.3	6.5	8.6	76	7.7	7.8	27	8.7	13	46
28	4.9	5.2	5.9	6.3	6.9	20	7.3	5.9	7.3	6.6	8.2	14
29	5.0	5.1	58	6.0	5.9	12	6.7	5.7	6.7	5.7	6.2	7.3
30	5.0	5.0	23	5.8	---	10	6.7	5.6	6.5	5.5	4.4	5.4
31	5.1	---	8.5	5.9	---	32	---	267	---	70	4.6	---
TOTAL	322.5	411.8	672.3	346.3	310.1	644.3	357.0	649.6	1204.8	792.4	408.7	479.9
MEAN	10.4	13.7	21.7	11.2	10.7	20.8	11.9	21.0	40.2	25.6	13.2	16.0
MAX	57	171	249	51	53	118	35	267	568	154	58	114
MIN	4.9	4.5	5.3	5.3	4.7	5.0	6.3	5.6	6.5	5.5	4.4	4.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	20.4	24.7	23.1	23.2	26.4	31.7	29.6	27.3	23.1	27.1	28.5	25.7
MAX	60.1	90.6	85.1	86.3	55.1	75.5	97.0	83.8	57.4	83.1	195	102
(WY)	1928	1973	1984	1979	1971	1983	1983	1968	1972	1922	1971	1966
MIN	1.58	5.05	6.25	3.71	6.56	6.03	10.3	5.97	3.94	3.24	.068	1.99
(WY)	1922	1923	1981	1925	1934	1981	1963	1923	1923	1923	1923	1923

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	8921.0		6599.7			
ANNUAL MEAN	24.4		18.0		25.9	
HIGHEST ANNUAL MEAN					48.3	1971
LOWEST ANNUAL MEAN					10.2	1923
HIGHEST DAILY MEAN	335	Sep 25	568	Jun 5	1900	Aug 28 1971
LOWEST DAILY MEAN	4.5	Nov 3	4.1	Sep 20	.00	Jul 14 1922
ANNUAL SEVEN-DAY MINIMUM	4.7	Nov 3	4.7	Nov 3	.00	Aug 7 1923
INSTANTANEOUS PEAK FLOW			2080	Jun 5	4110	Aug 28 1971
INSTANTANEOUS PEAK STAGE			19.58	Jun 5	18.7a	Aug 28 1971
INSTANTANEOUS LOW FLOW			3.6	Sep 20		
10 PERCENT EXCEEDS	47		37		51	
50 PERCENT EXCEEDS	11		7.2		11	
90 PERCENT EXCEEDS	5.6		5.0		5.5	

a From floodmark, site and datum then in use, from rating curve extended above 1,100 ft^3/s on basis of contracted-opening measurement of peak flow. Maximum gage height at current site and datum was 25.77 ft, Aug. 2, 1973.
e Estimated.

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
15...	1100	5.0	--	7.9	13.0	7.3	--	4.0	1300	<200
JAN 1992										
23...	1115	5.4	--	7.8	3.5	11.6	--	3.5	490	70
APR										
01...	1230	9.7	600	7.9	11.0	13.7	126	E1.9	490	10
JUN										
04...	1230	7.2	725	8.0	22.0	--	--	--	500	140
JUL										
29...	1145	5.7	790	8.6	22.0	14.9	173	E1.7	50	10

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
15...	250	79	14	39	2.5	156	72	87	<0.1
JAN 1992									
23...	280	89	15	89	2.5	156	74	180	0.1
APR									
01...	140	46	7.2	56	1.5	84	40	110	0.2
JUN									
04...	230	72	12	46	2.7	136	63	96	<0.1
JUL									
29...	240	74	13	54	2.6	133	74	130	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
15...	17	408	0.031	0.035	0.82	0.77	0.07	0.11	0.57
JAN 1992									
23...	14	568	0.048	0.048	2.48	2.52	0.09	0.10	0.65
APR									
01...	8.7	326	0.026	0.025	1.40	1.42	0.06	0.07	0.56
JUN									
04...	14	395	0.049	0.049	1.69	1.72	0.20	0.12	0.56
JUL									
29...	11	444	0.039	0.039	1.28	1.29	<0.03	<0.03	0.38

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
15...	0.31	1.4	1.1	0.04	<0.02	4.1	0.3	4	0.05
JAN 1992									
23...	0.41	3.1	2.9	0.05	<0.02	2.6	0.3	6	0.09
APR									
01...	0.52	2.0	1.9	0.05	0.03	4.1	0.4	3	0.08
JUN									
04...	0.46	2.3	2.2	0.07	0.06	4.7	--	3	0.06
JUL									
29...	0.33	1.7	1.6	0.06	0.02	33	0.3	1	0.02

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 04...	1230	2	<10	100	<1	<1	8

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 04...	310	4	60	<0.10	5	<1	20

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ

LOCATION.--Lat 40°41'11", long 74°18'44", Union County, Hydrologic Unit 02030104, on left bank 50 ft 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to current year.

REVISED RECORDS.--WSP 1622: 1945. WRD-NJ 1973: 1938(M), 1968(M), 1971(M).

GAGE.--Water-stage recorder. Former concrete control is no longer effective. Datum of gage is 66.17 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Water for municipal supply diverted from river by city of Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, Short Hills Water Co., and Springfield station of Elizabethtown Water Co. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	2215	*3,460	*8.63	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	16	13	8.7	8.8	9.6	26	9.3	57	8.6	23	e6.5
2	9.8	19	17	8.6	8.5	9.4	19	10	15	7.8	7.9	e5.0
3	10	13	279	8.9	8.7	9.5	15	8.8	11	33	36	e12
4	9.6	12	123	47	8.7	9.3	14	8.6	10	44	15	e32
5	17	12	24	15	8.7	9.2	13	10	860	9.0	7.9	e8.5
6	44	13	16	12	8.9	9.0	12	8.7	1330	29	7.3	e6.5
7	10	14	13	10	9.0	49	12	9.2	76	8.5	6.5	e6.0
8	9.3	15	11	9.8	9.7	14	11	32	37	8.1	6.6	e6.5
9	9.3	14	14	20	9.1	9.9	11	39	27	144	32	e6.0
10	9.9	14	57	11	9.0	30	13	23	19	11	13	e70
11	14	57	15	9.2	8.8	145	37	12	15	8.5	14	e40
12	14	11	12	8.6	8.2	28	12	11	13	8.2	9.5	e10
13	8.6	8.7	36	8.5	8.5	16	10	10	12	10	6.1	e7.0
14	8.6	8.5	23	56	11	14	10	9.8	11	51	23	e6.0
15	24	8.6	16	15	53	12	10	9.3	12	72	8.5	e5.0
16	16	9.1	14	12	56	11	29	51	9.7	31	13	e5.2
17	69	10	12	11	11	10	25	10	9.7	9.7	12	e5.0
18	14	11	11	9.5	11	9.2	17	9.3	9.7	14	38	e5.2
19	8.6	12	9.8	8.5	12	22	15	8.8	36	7.8	7.7	e5.0
20	12	12	10	8.8	12	28	12	8.5	18	7.3	6.6	e4.5
21	13	16	10	8.7	9.9	18	12	8.6	9.9	7.2	6.5	e4.0
22	14	179	10	8.5	8.8	15	18	9.4	9.2	7.4	6.6	e10
23	13	88	10	71	8.8	25	11	7.9	9.1	55	6.6	e42
24	13	16	10	50	8.7	15	33	15	29	9.5	7.0	e8.0
25	14	11	11	14	12	19	29	16	11	7.0	7.1	e20
26	14	9.7	9.5	11	55	97	14	8.9	9.0	7.6	20	e100
27	14	8.6	9.3	9.7	18	298	11	10	12	9.7	13	e40
28	15	8.5	9.2	9.5	13	55	10	7.9	8.6	6.7	7.4	e18
29	16	8.5	56	9.7	10	25	10	7.7	8.5	6.7	e8.5	e11
30	19	8.7	28	10	---	19	10	7.8	8.5	6.6	e7.5	e8.6
31	15	---	10	9.8	---	51	---	250	---	97	e7.0	---
TOTAL	487.7	643.9	898.8	510.0	424.8	1091.1	481	647.5	2702.9	742.9	390.8	513.5
MEAN	15.7	21.5	29.0	16.5	14.6	35.2	16.0	20.9	90.1	24.0	12.6	17.1
MAX	69	179	279	71	56	298	37	250	1330	144	38	100
MIN	8.6	8.5	9.2	8.5	8.2	9.0	10	7.7	8.5	6.6	6.1	4.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

MEAN	17.1	26.7	29.8	29.0	34.2	45.7	42.1	34.9	23.6	24.4	23.4	21.2
MAX	65.3	107	129	116	77.7	112	139	112	110	138	112	100
(WY)	1990	1973	1984	1979	1939	1953	1983	1989	1972	1975	1942	1975
MIN	2.17	2.73	4.02	4.26	7.01	8.08	7.37	6.31	4.14	2.23	2.10	2.97
(WY)	1964	1950	1940	1966	1954	1981	1963	1965	1965	1966	1964	1964

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1939 - 1992	
ANNUAL TOTAL	11456.8		9534.9			
ANNUAL MEAN	31.4		26.1		29.3	
HIGHEST ANNUAL MEAN					55.9	1973
LOWEST ANNUAL MEAN					10.0	1965
HIGHEST DAILY MEAN	609	Mar 4	1330	Jun 6	1620	Aug 28 1971
LOWEST DAILY MEAN	6.0	Jul 18	4.0	Sep 21	.40	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	6.4	Jul 14	4.8	Sep 15	.71	Oct 8 1970
INSTANTANEOUS PEAK FLOW			3460	Jun 5	5430a	Aug 2 1973
INSTANTANEOUS PEAK STAGE			8.63	Jun 5	9.76b	Aug 2 1973
INSTANTANEOUS LOW FLOW			6.0	Aug 7	.10	Sep 11 1966
10 PERCENT EXCEEDS	55		43		59	
50 PERCENT EXCEEDS	14		11		10	
90 PERCENT EXCEEDS	8.2		7.7		3.2	

a From rating curve extended above 1,600 ft^3/s on basis of slope-area measurement of peak flow.
b From floodmark.
e Estimated.
* Instantaneous low flow probably occurred during period of estimated daily discharges.

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
17...	1045	9.2	--	7.8	12.0	5.5	--	E2.0	5400	>2400
JAN 1992										
27...	1045	9.2	950	7.9	1.0	12.7	89	<1.1	330	130
APR										
06...	1045	12	625	7.8	7.5	13.9	116	E1.4	9200	130
JUN										
16...	1100	9.2	567	7.6	20.0	10.0	110	<1.0	1100	9000
JUL										
15...	1100	7.8	335	7.7	24.5	--	--	<1.0	3500	290

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
17...	130	41	7.2	19	2.8	95	26	40	<0.1
JAN 1992									
27...	180	56	9.9	94	1.9	106	36	190	<0.1
APR									
06...	200	60	11	46	1.8	104	38	110	0.1
JUN									
16...	190	57	11	37	1.9	112	39	89	<0.1
JUL									
15...	110	33	5.9	17	1.9	75	25	38	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
17...	12	209	0.009	0.015	1.05	0.97	0.05	0.07	0.65
JAN 1992									
27...	15	473	0.014	0.014	1.59	1.56	0.05	<0.03	0.33
APR									
06...	9.5	344	0.021	0.018	1.28	1.25	<0.03	0.05	0.35
JUN									
16...	16	324	0.031	0.031	1.28	1.26	0.05	0.05	0.56
JUL									
15...	9.8	180	0.025	0.025	0.97	0.97	0.26	0.08	0.79

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
17...	0.59	1.7	1.6	0.06	<0.02	6.2	0.5	6	0.15
JAN 1992									
27...	0.32	1.9	1.9	0.03	<0.02	2.9	0.2	2	0.05
APR									
06...	0.26	1.6	1.5	<0.02	<0.02	3.7	1.3	3	0.10
JUN									
16...	0.38	1.8	1.6	0.06	0.03	4.7	0.3	78	1.9
JUL									
15...	0.35	1.8	1.3	0.11	0.08	5.0	0.7	5	0.11

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 17...	1045	22	<1	<10	30	<1	11	10
JUN 1992 16...	1100	15	<1	<10	90	<1	<1	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 17...	400	7	120	<0.10	8	<1	30
JUN 1992 16...	330	3	100	<0.10	<1	<1	<10

01395000 RAHWAY RIVER AT RAHWAY, NJ

LOCATION.--Lat 40°37'05", long 74°17'00", Union County, Hydrologic Unit 02030104, on left bank 100 ft upstream from St. Georges Avenue bridge in Rahway and 0.9 mi upstream from Robinsons Branch.

DRAINAGE AREA.--40.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1908 to April 1915 (gage heights and discharge measurements only), October 1921 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23(M), 1924, 1930-31(M), 1937. WDR NJ-79-1: 1978.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8.77 ft above sea level. Prior to Aug. 25, 1934, nonrecording gage at site 40 ft downstream from Church Street and 1,500 ft downstream from present site at datum 2.77 ft lower.

REMARKS.--No estimated daily discharges. Records good. Water for municipal supply diverted from river by Rahway and Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, Short Hills Water Co., Springfield station of Elizabethtown Water Co, and by storage in the Lenape Park flood control reservoir (since 1980). Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 31	1630	634	3.25	July 9	0545	980	3.87
June 5	2215	*2,890	*6.25				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	6.9	12	11	11	10	42	14	198	9.0	111	4.5
2	10	7.4	17	9.7	9.5	10	29	16	28	8.1	13	6.1
3	9.6	10	358	10	9.1	9.7	23	14	15	15	9.4	25
4	9.3	8.3	258	63	9.8	9.2	21	12	13	100	52	46
5	11	6.5	42	42	9.5	10	20	15	723	17	12	9.8
6	72	6.6	23	17	8.9	10	18	14	2280	45	8.6	7.5
7	30	7.0	19	13	9.5	59	17	13	548	13	8.0	9.2
8	8.4	7.8	15	11	10	42	16	25	57	11	7.9	8.9
9	6.7	7.7	13	17	11	13	15	87	37	410	11	8.0
10	7.4	8.4	85	27	8.3	15	21	38	28	33	36	90
11	9.0	67	25	13	9.3	192	53	23	25	15	17	104
12	14	29	17	10	9.3	50	24	16	20	12	26	14
13	10	12	38	11	8.9	23	15	13	18	15	30	8.8
14	6.8	11	48	60	13	17	16	13	17	121	46	7.0
15	13	9.4	29	32	30	15	16	11	15	64	10	6.8
16	35	7.1	17	14	140	12	25	82	15	133	15	6.7
17	66	6.6	16	11	23	13	55	24	12	21	25	6.2
18	64	4.7	14	9.8	15	11	39	14	11	21	67	6.5
19	16	6.3	12	8.5	18	29	26	12	51	14	20	6.5
20	7.9	6.5	12	8.3	15	46	21	10	48	11	12	6.1
21	6.8	7.7	13	8.0	13	37	19	8.9	13	10	8.4	4.6
22	8.5	125	13	8.1	11	26	25	8.7	13	9.8	6.7	13
23	8.6	225	13	45	10	38	21	11	10	94	8.6	72
24	10	28	13	117	15	31	17	13	33	48	6.2	9.1
25	8.4	15	12	25	14	26	52	31	25	5.4	5.7	32
26	9.6	9.6	13	14	85	62	21	11	12	8.5	38	138
27	8.8	8.9	11	11	27	477	16	14	18	16	26	52
28	6.6	9.0	11	11	17	103	15	9.8	13	23	15	40
29	5.2	8.5	71	12	14	41	15	9.1	9.3	9.8	13	12
30	6.0	11	51	12	---	28	16	9.3	8.9	8.0	11	8.5
31	7.9	---	21	12	---	59	---	298	---	33	6.1	---
TOTAL	502.5	683.9	1312	673.4	584.1	1523.9	729	889.8	4314.2	1353.6	681.6	768.8
MEAN	16.2	22.8	42.3	21.7	20.1	49.2	24.3	28.7	144	43.7	22.0	25.6
MAX	72	225	358	117	140	477	55	298	2280	410	111	138
MIN	5.2	4.7	11	8.0	8.3	9.2	15	8.7	8.9	5.4	5.7	4.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	27.1	42.8	46.3	49.2	58.5	76.9	68.2	53.2	36.6	41.0	40.3	36.0
MAX	130	221	255	211	156	190	246	199	173	268	242	175
(WY)	1928	1973	1984	1979	1925	1983	1983	1989	1972	1975	1971	1975
MIN	1.48	3.05	3.27	1.41	12.5	12.6	7.80	6.20	3.32	.33	.43	2.26
(WY)	1964	1966	1981	1981	1954	1981	1963	1965	1965	1966	1964	1964

01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	18716.3		14016.8			
ANNUAL MEAN	51.3		38.3		47.9	
HIGHEST ANNUAL MEAN					105	1973
LOWEST ANNUAL MEAN					15.0	1965
HIGHEST DAILY MEAN	1220	Mar 4	2280	Jun 6	3450	Aug 28 1971
LOWEST DAILY MEAN	1.7	Jul 31	4.5	Sep 1	.00	Oct 9 1964
ANNUAL SEVEN-DAY MINIMUM	6.9	Nov 15	6.2	Sep 15	.00	Jul 10 1981
INSTANTANEOUS PEAK FLOW			2890	Jun 5	5420a	Aug 2 1973
INSTANTANEOUS PEAK STAGE			6.25	Jun 5	7.88	Aug 2 1973
INSTANTANEOUS LOW FLOW			1.2	Feb 8		
10 PERCENT EXCEEDS	99		62		98	
50 PERCENT EXCEEDS	22		14		18	
90 PERCENT EXCEEDS	7.4		7.9		3.2	

a From rating curve extended above 3,000 ft^3/s.

01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1952, 1962, 1967-70, and February 1979 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
21...	1030	6.4	332	--	10.5	8.9	79	E1.5	200	200
JAN 1992										
27...	1330	10	560	7.9	3.0	14.6	108	<1.2	330	110
APR										
06...	1315	23	580	8.7	10.5	17.3	156	2.7	20	<10
JUN										
17...	1130	12	532	7.9	22.0	11.5	131	E2.1	130	110
JUL										
16...	1130	19	210	7.8	24.0	7.3	87	3.6	3200	4900

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
21...	130	40	6.4	14	2.0	88	31	31	<0.1
JAN 1992									
27...	120	38	5.9	52	1.8	76	30	98	0.1
APR									
06...	170	54	9.7	46	1.7	103	40	100	0.2
JUN									
17...	200	61	11	29	2.1	123	43	66	0.1
JUL									
16...	64	20	3.4	10	1.6	42	13	19	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
21...	11	192	0.010	0.009	0.76	0.76	0.14	0.21	0.56
JAN 1992									
27...	8.6	284	0.019	0.017	0.99	0.95	<0.03	0.05	0.49
APR									
06...	8.1	325	0.019	0.018	0.76	0.77	<0.06	0.07	0.56
JUN									
17...	14	303	0.024	0.023	0.73	0.74	<0.03	<0.03	0.83
JUL									
16...	5.6	102	0.037	0.034	0.87	0.84	0.16	0.11	0.95

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
21...	0.35	1.3	1.1	0.05	<0.02	4.2	0.6	7	0.12
JAN 1992									
27...	0.33	1.5	1.3	0.06	0.03	3.8	0.5	4	0.11
APR									
06...	0.29	1.3	1.1	0.05	<0.02	3.1	0.4	6	0.37
JUN									
17...	0.43	1.6	1.2	0.06	<0.02	3.6	0.8	14	0.45
JUL									
16...	0.48	1.8	1.3	0.18	0.08	5.0	1.6	24	1.2

01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 21...	1030	14	<1	<10	60	<1	8	5
JUN 1992 17...	1130	15	<1	<10	90	<1	1	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 21...	260	4	160	<0.10	3	<1	<10
JUN 1992 17...	230	2	140	<0.10	<1	<1	<10

01396000 ROBINSONS BRANCH AT RAHWAY, NJ

LOCATION.--Lat 40°36'20", long 74°17'57", Union County, Hydrologic Unit 02030104, on right bank of Milton Lake, 2,000 ft upstream from Maple Avenue in Rahway, 3,200 ft downstream from Middlesex Reservoir Dam, and 1.6 mi upstream from mouth.

DRAINAGE AREA.--21.6 mi^2.

PERIOD OF RECORD.--September 1939 to current year. September 1939 to September 1978, published as "Robinsons Branch Rahway River at Rahway." October 1978 to September 1985, published as "Robinsons Branch Rahway River at Maple Avenue, at Rahway" (station 01396001).

REVISED RECORDS.--WDR NJ-75-1: 1973(P). WDR NJ-87-1: 1986(M).

GAGE.--Water-stage recorder. Datum of gage is 19.99 ft above sea level (levels from New Jersey Geological Survey bench mark). From Sept. 26, 1978 to Sept. 30, 1985, water-stage recorder 2,000 ft downstream at Maple Avenue at datum 8.69 ft lower.

REMARKS.--No estimated daily discharges. Records fair except those below 2 ft^3/s, which are poor. Water diverted for municipal supply by Middlesex Water Co., from Middlesex Reservoir, capacity, 89,000,000 gal, 1.0 mi above station. No diversion this year. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	2100	*2,280	*5.62	July 9	0415	1,400	5.27

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	1.8	2.7	5.5	5.8	6.3	16	5.8	88	2.2	29	2.0
2	5.3	2.7	3.5	5.0	4.8	7.7	13	6.4	14	2.1	7.5	1.4
3	4.7	3.4	177	5.0	4.4	7.7	11	5.9	6.7	6.1	4.7	5.8
4	4.0	3.8	139	27	4.5	8.8	10	5.4	4.6	36	6.2	16
5	6.1	4.9	26	26	4.9	12	9.5	5.9	592	6.0	4.4	5.3
6	17	5.4	12	12	4.4	13	7.1	7.1	598	24	3.1	3.5
7	9.7	5.1	9.4	7.6	5.0	28	6.7	6.4	214	5.5	2.6	3.6
8	5.0	6.1	6.8	4.9	5.4	28	8.4	14	54	2.6	2.4	4.9
9	4.3	5.3	7.0	8.1	5.7	16	7.6	32	18	363	3.3	4.0
10	4.8	4.6	32	10	4.5	16	9.6	22	14	75	5.0	31
11	7.6	20	14	6.4	4.4	64	22	16	7.5	10	15	45
12	12	5.9	8.3	5.0	4.5	24	16	9.3	.72	4.1	18	12
13	7.0	3.3	14	5.0	4.3	14	9.4	7.9	.47	5.2	6.0	6.2
14	6.0	2.3	21	17	5.9	9.1	8.4	7.8	.41	26	22	3.6
15	9.0	2.4	12	10	17	7.8	7.2	5.5	.75	33	10	.65
16	17	4.3	7.5	6.2	64	6.4	12	65	1.2	38	16	.40
17	43	3.7	5.8	2.9	24	5.9	24	32	1.6	8.4	19	.36
18	19	2.7	5.9	3.6	18	6.3	20	9.0	1.6	6.3	43	.36
19	4.4	3.4	4.5	2.8	20	15	17	5.4	4.8	6.3	13	.43
20	2.2	6.2	3.8	2.8	18	22	12	4.4	28	6.6	7.2	.49
21	1.9	7.2	4.5	3.1	13	20	10	3.9	15	5.7	4.4	.42
22	2.1	72	4.4	3.1	10	16	11	3.6	5.2	4.0	3.5	2.5
23	1.9	78	5.0	21	9.7	22	10	3.4	3.4	32	3.1	27
24	1.9	9.3	5.3	53	8.9	20	7.8	5.1	10	20	2.9	2.9
25	2.5	3.4	4.4	18	9.8	19	7.7	8.2	8.5	6.9	2.8	.94
26	2.8	3.2	4.3	10	41	50	7.6	4.4	3.4	5.0	4.0	63
27	3.0	2.7	4.3	6.2	20	186	7.0	4.1	4.2	13	5.8	36
28	3.5	2.1	4.3	5.2	12	46	6.6	3.4	3.4	8.3	3.5	22
29	2.4	1.9	24	5.0	11	19	6.3	3.0	2.6	4.4	3.9	6.1
30	2.9	1.9	23	5.0	---	14	5.9	2.7	2.3	4.1	2.7	1.7
31	2.5	---	10	5.1	---	24	---	153	---	21	2.4	---
TOTAL	220.0	279.0	605.7	307.5	364.9	754.0	326.8	468.0	1708.35	790.8	276.4	309.55
MEAN	7.10	9.30	19.5	9.92	12.6	24.3	10.9	15.1	56.9	25.5	8.92	10.3
MAX	43	78	177	53	64	186	24	153	598	363	43	63
MIN	1.9	1.8	2.7	2.8	4.3	5.9	5.9	2.7	.41	2.1	2.4	.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

MEAN	12.9	25.7	28.4	29.9	35.8	44.1	37.6	30.9	17.5	18.4	17.9	16.4
MAX	60.3	98.8	142	118	77.0	108	129	116	76.8	143	90.9	118
(WY)	1959	1973	1984	1979	1973	1953	1983	1989	1972	1975	1942	1975
MIN	.22	.48	1.03	.87	7.24	8.49	.45	.27	.15	.000	.13	.020
(WY)	1954	1965	1966	1966	1954	1981	1963	1963	1957	1954	1953	1955

01396000 ROBINSONS BRANCH AT RAHWAY, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	9964.0		6411.00			
ANNUAL MEAN	27.3		17.5		26.2	
HIGHEST ANNUAL MEAN					52.2	1984
LOWEST ANNUAL MEAN					5.79	1965
HIGHEST DAILY MEAN	563	Mar 4	598	Jun 6	1240	Jul 15 1975
LOWEST DAILY MEAN	1.8	Nov 1	.36	Sep 17	.00	Jan 9 1942
ANNUAL SEVEN-DAY MINIMUM	2.2	Oct 20	.44	Sep 15	.00	Oct 5 1947
INSTANTANEOUS PEAK FLOW			2280	Jun 5	3110a	Jul 15 1975
INSTANTANEOUS PEAK STAGE			5.62	Jun 5	6.02	Aug 15 1969
INSTANTANEOUS LOW FLOW			.34	Sep 17	.00	Many days
10 PERCENT EXCEEDS	56		28		58	
50 PERCENT EXCEEDS	11		6.3		7.6	
90 PERCENT EXCEEDS	3.9		2.5		.60	

a From rating curve extended above 750 ft^3/s on basis of flow-over-dam computation.

01396280 SOUTH BRANCH RARITAN RIVER AT MIDDLE VALLEY, NJ

LOCATION.--Lat 40°45'40", long 74°49'18", Morris County, Hydrologic Unit 02030105, at bridge on Middle Valley Road in Middle Valley, 6.9 mi downstream from Drakes Brook.

DRAINAGE AREA.--47.6 mi^2.

PERIOD OF RECORD.--Water years 1964-65, 1967, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
13...	1130	40	255	8.6	6.5	13.6	112	<1.2	50	33
FEB 1992										
03...	1045	46	280	8.3	0.5	14.8	105	E1.0	20	<10
MAR										
17...	1230	66	254	8.3	2.0	14.5	107	1.2	20	<10
JUN										
02...	1200	84	193	8.0	14.0	10.6	103	E1.1	460	--
JUL										
22...	1030	39	280	8.5	18.5	9.5	103	<1.0	330	90

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
13...	100	22	11	11	1.8	79	13	22	<0.1
FEB 1992									
03...	92	21	9.7	15	1.4	63	14	27	0.1
MAR									
17...	74	17	7.7	12	1.2	52	15	27	0.1
JUN									
02...	61	14	6.3	10	1.2	46	12	21	<0.1
JUL									
22...	100	22	11	14	1.5	80	11	27	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
13...	12	149	0.012	0.012	2.06	2.06	0.07	--	0.32
FEB 1992									
03...	12	147	0.010	0.013	2.10	2.10	<0.03	<0.03	0.20
MAR									
17...	12	131	0.006	0.006	1.60	1.68	0.10	0.10	0.20
JUN									
02...	11	108	0.012	0.012	1.13	1.15	<0.03	<0.03	0.49
JUL									
22...	12	155	0.009	0.012	1.90	1.83	<0.03	<0.03	0.06

DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
13...	0.16	2.4	2.2	0.15	0.06	--	0.3	2	0.22
FEB 1992									
03...	0.18	2.3	2.3	0.06	0.05	2.0	0.3	1	0.12
MAR									
17...	0.18	1.8	1.9	0.03	0.03	2.0	0.2	8	1.4
JUN									
02...	0.42	1.6	1.6	0.04	0.10	5.0	0.4	12	2.7
JUL									
22...	<0.03	2.0	--	0.11	0.12	2.1	0.8	8	0.84

01396280 SOUTH BRANCH RARITAN RIVER AT MIDDLE VALLEY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)
NOV 1991										
13...	1130	--	<1	1	3.7	220	410	0.5	3.5	--
13...	1130	12	--	--	--	--	--	--	--	<1

DATE	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
13...	<1	--	--	--	<1	--	5	<5	10	--
13...	--	<10	20	<1	--	<1	--	--	--	100

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
13...	5200	--	10	--	190	--	<0.01	--	<10	--
13...	--	<1	--	<10	--	<0.10	--	2	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
13...	<1	--	40	1	<1.0	<0.1	2.0	0.1	<1.0	0.5
13...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
13...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
13...	--	--	--	--	--	--	--	--	--	--

01396500 SOUTH BRANCH RARITAN RIVER NEAR HIGH BRIDGE, NJ

LOCATION.--Lat 40°40'40", long 74°52'46", Hunterdon County, Hydrologic Unit 02030105, on left bank 1.0 mi northeast of High Bridge, and 4.4 mi upstream from Spruce Run.

DRAINAGE AREA.--65.3 mi^2.

PERIOD OF RECORD.--October 1918 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 601: 1924. WSP 781: Drainage area. WSP 1552: 1919(M), 1920(M), 1921, 1923, 1924(M), 1927-28(M), 1934(M), 1941(M).

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Sept. 28, 1930. Datum of gage is 282.10 ft above sea level (levels from New Jersey Geological Survey bench mark). Prior to Sept. 30, 1921, reference point at same site and datum.

REMARKS.--Records good. Occasional regulation from unknown source. Several measurements of water temperature were made during the year. New Jersey Water-Supply Authority gage-height and USGS satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Outstanding floods occurred on Feb. 6, 1896, in February 1902, and October 1903. At High Bridge, according to reports of the New Jersey State Geologist, the discharges for these floods respectively were 7,560 ft^3/s, 3,840 ft^3/s, and 2,670 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 27	0900	1,110	8.57	June 5	2345	*1,850	*9.32

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	40	52	58	68	73	147	86	280	70	218	42
2	42	40	55	58	60	76	139	86	126	66	84	42
3	41	38	360	56	64	73	129	83	90	66	65	47
4	40	39	321	66	62	72	120	79	77	85	63	248
5	40	38	122	93	61	71	113	78	362	71	60	77
6	41	38	91	70	57	69	107	78	1060	86	54	57
7	43	38	81	62	60	95	103	74	290	68	52	57
8	39	39	76	59	61	169	102	78	248	62	51	58
9	37	38	75	59	57	101	97	118	321	209	85	54
10	37	38	122	69	54	91	102	101	167	91	70	55
11	38	45	89	61	58	340	135	96	144	70	57	87
12	40	56	76	58	56	157	111	83	129	64	73	58
13	40	47	77	56	59	119	97	79	118	71	57	49
14	37	44	89	125	59	107	92	77	110	121	56	48
15	43	42	81	121	63	99	89	72	102	78	56	46
16	91	41	69	75	181	91	89	82	95	87	55	44
17	89	40	61	68	98	91	121	85	91	72	79	44
18	119	39	62	74	81	91	123	76	87	81	96	43
19	63	39	56	e57	86	99	111	72	179	67	71	42
20	52	39	60	e59	87	99	102	67	165	61	58	43
21	47	41	59	e65	77	93	97	65	103	58	53	41
22	46	125	57	e64	72	90	109	62	90	56	50	42
23	44	274	56	104	70	91	131	59	85	82	49	53
24	43	99	56	296	74	86	106	57	99	94	48	44
25	42	72	53	107	77	89	149	63	139	66	47	41
26	41	61	48	91	157	165	111	61	91	60	55	54
27	42	56	50	84	122	724	102	65	86	77	55	64
28	41	54	48	78	92	250	94	61	81	64	49	64
29	40	52	73	73	85	180	91	57	74	56	57	49
30	40	51	106	71	---	158	88	56	71	54	48	44
31	40	---	71	72	---	163	---	296	---	76	44	---
TOTAL	1481	1703	2752	2509	2258	4272	3307	2552	5160	2389	2015	1737
MEAN	47.8	56.8	88.8	80.9	77.9	138	110	82.3	172	77.1	65.0	57.9
MAX	119	274	360	296	181	724	149	296	1060	209	218	248
MIN	37	38	48	56	54	69	88	56	71	54	44	41
CFSM	.73	.87	1.36	1.24	1.19	2.11	1.69	1.26	2.63	1.18	1.00	.89
IN.	.84	.97	1.57	1.43	1.29	2.43	1.88	1.45	2.94	1.36	1.15	.99

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1992, BY WATER YEAR (WY)

MEAN	73.3	108	131	136	153	200	190	143	98.0	85.6	78.0	72.2
MAX	257	335	382	480	301	466	528	337	401	295	285	195
(WY)	1928	1928	1974	1979	1925	1936	1983	1989	1972	1975	1942	1979
MIN	21.8	26.9	36.5	31.8	54.0	79.5	70.7	50.5	27.6	20.7	20.4	20.8
(WY)	1964	1966	1966	1981	1934	1965	1965	1965	1965	1965	1965	1964

01396500 SOUTH BRANCH RARITAN RIVER NEAR HIGH BRIDGE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1919 - 1992	
ANNUAL TOTAL	37511		32135			
ANNUAL MEAN	103		87.8		122	
HIGHEST ANNUAL MEAN					213	1928
LOWEST ANNUAL MEAN					46.2	1965
HIGHEST DAILY MEAN	645	Mar 4	1060	Jun 6	3340	Jan 25 1979
LOWEST DAILY MEAN	31	Sep 18	37	Oct 9	13	Aug 11 1966
ANNUAL SEVEN-DAY MINIMUM	32	Sep 12	38	Oct 8	18	Aug 11 1965
INSTANTANEOUS PEAK FLOW			1850	Jun 5	6910	Jan 25 1979
INSTANTANEOUS PEAK STAGE			9.32	Jun 5	12.23a	Feb 24 1979
INSTANTANEOUS LOW FLOW			37	Oct 9	6.6	Oct 11 1930
ANNUAL RUNOFF (CFSM)	1.57		1.34		1.87	
ANNUAL RUNOFF (INCHES)	21.37		18.31		25.45	
10 PERCENT EXCEEDS	191		129		234	
50 PERCENT EXCEEDS	75		71		86	
90 PERCENT EXCEEDS	38		42		36	

a Ice jam.
e Estimated.

01396535 SOUTH BRANCH RARITAN RIVER AT ARCH STREET AT HIGH BRIDGE, NJ

LOCATION.--Lat 40°39'49", long 74°53'52", Hunterdon County, Hydrologic Unit 02030105, at bridge on Arch Street in High Bridge, 0.9 mi northeast of Mariannes Corner, 1.0 mi downstream from Lake Solitude dam, and 4.3 mi northeast of Norton.

DRAINAGE AREA.--68.8 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
14...	1100	40	272	8.5	6.5	13.1	108	E1.5	80	33
FEB 1992										
03...	1330	62	272	8.4	1.5	14.5	104	E1.7	20	<10
MAR										
17...	1030	93	233	8.4	1.5	13.7	99	1.3	60	10
JUN										
02...	1000	130	--	7.8	14.5	10.5	--	E1.3	490	650
JUL										
22...	1230	53	267	8.5	21.0	8.8	100	<1.0	40	200

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
14...	100	22	11	11	1.6	83	14	21	<0.1
FEB 1992									
03...	96	22	10	12	1.3	69	13	22	0.1
MAR									
17...	80	18	8.5	12	1.3	57	16	24	0.1
JUN									
02...	55	13	5.4	8.9	1.2	41	12	17	<0.1
JUL									
22...	100	22	11	11	1.6	84	12	21	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
14...	9.4	148	0.007	0.008	1.77	1.75	0.12	<0.03	0.28
FEB 1992									
03...	12	142	0.007	0.006	1.79	1.78	<0.03	<0.03	0.15
MAR									
17...	11	132	0.008	0.008	1.59	1.58	0.06	0.07	0.14
JUN									
02...	11	97	0.018	0.016	0.94	0.94	<0.03	<0.03	0.57
JUL									
22...	11	147	0.017	0.016	1.52	1.49	0.06	0.04	0.08

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
14...	0.16	2.1	1.9	<0.02	<0.02	--	0.3	1	0.11
FEB 1992									
03...	0.12	1.9	1.9	0.02	0.02	1.6	0.2	1	0.17
MAR									
17...	0.12	1.7	1.7	0.02	0.02	2.0	0.2	4	1.0
JUN									
02...	0.44	1.5	1.4	0.07	0.03	5.6	0.4	5	1.8
JUL									
22...	<0.03	1.6	--	0.08	0.07	2.5	0.4	6	0.86

01396535 SOUTH BRANCH RARITAN RIVER AT ARCH STREET AT HIGH BRIDGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)
NOV 1991										
14...	1100	--	<1	<1	3.3	210	550	0.7	5.6	--
14...	1100	14	--	--	--	--	--	--	--	<1

DATE	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
14...	2	--	--	--	<1	--	20	<5	30	--
14...	--	<10	10	<1	--	<1	--	--	--	120

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
14...	9900	--	40	--	740	--	<0.01	--	10	--
14...	--	4	--	20	--	<0.10	--	2	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
14...	<1	--	80	4	<1.0	<0.1	6.0	0.1	<1.0	0.4
14...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
14...	0.1	<1.0	<1.0	<0.1	<1.0	<0.1	<10	<0.1	<10.0	<10
14...	--	--	--	--	--	--	--	--	--	--

01396580 SPRUCE RUN AT GLEN GARDNER, NJ

LOCATION.--Lat 40⟩41'29", long 74⟩56'15", Hunterdon County, Hydrologic Unit 02030105, on right downstream wingwall of bridge on Sanatorium Road in Glen Gardner, 0.8 mi downstream from Alpaugh Brook, and 2.0 mi upstream from Spruce Run Reservoir.

DRAINAGE AREA.--12.3 mi^2.

PERIOD OF RECORD.--March 1978 to September 1988, December 1991 to September 1992.

REVISED RECORD.--WDR NJ-86-1: 1983-85(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 389.10 ft above sea level.

REMARKS.--Records good except those above 200 ft^3/s and for estimated daily discharges, which are fair. Some regulation from unknown sources uptream. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 11	0500	553	4.13	June 6	0015	*1,390	*5.82
Mar. 26	2400	806	4.51				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	18	10	11	20	11	28	7.7	23	4.3
2	---	---	---	10	22	10	19	11	18	6.9	9.9	4.2
3	---	---	---	9.5	16	9.6	17	10	9.6	8.4	8.3	5.3
4	---	---	---	12	14	9.2	16	9.1	7.1	13	7.7	5.6
5	---	---	---	12	11	9.1	15	8.8	207	8.7	7.2	4.9
6	---	---	---	10	11	8.8	14	8.6	265	16	6.3	4.9
7	---	---	---	9.1	13	20	14	8.2	42	8.8	5.8	8.0
8	---	---	---	8.4	6.3	22	13	11	34	7.2	5.6	6.4
9	---	---	---	9.7	8.1	14	13	17	41	51	13	5.3
10	---	---	---	11	8.7	15	14	14	23	12	8.9	5.8
11	---	---	12	9.5	7.9	132	25	12	19	8.6	7.3	10
12	---	---	9.9	8.7	10	28	17	9.9	16	7.6	7.6	5.2
13	---	---	13	8.4	10	21	13	9.3	14	11	6.1	4.3
14	---	---	15	35	8.4	18	12	8.1	13	53	7.6	4.1
15	---	---	13	e20	12	16	12	7.3	12	16	6.6	4.0
16	---	---	10	e8.7	37	16	13	12	11	17	7.2	3.9
17	---	---	17	e7.7	15	15	16	10	10	11	12	3.9
18	---	---	14	e7.9	12	14	16	8.7	10	21	18	3.7
19	---	---	20	e6.8	16	17	15	7.9	31	11	10	3.5
20	---	---	19	e8.5	13	16	13	6.9	23	8.8	8.0	3.2
21	---	---	14	e8.6	11	15	13	6.3	13	7.6	6.6	3.2
22	---	---	7.9	e20	9.7	14	17	5.9	11	6.9	6.0	4.8
23	---	---	8.1	33	9.6	14	14	5.5	10	27	5.7	8.5
24	---	---	8.1	44	11	13	16	5.1	16	17	5.4	4.0
25	---	---	7.4	40	12	17	34	5.7	13	11	5.3	3.8
26	---	---	8.9	27	41	103	17	5.9	10	9.5	5.4	8.7
27	---	---	6.9	12	19	196	15	6.7	9.9	16	6.2	9.1
28	---	---	9.6	9.4	14	35	13	5.8	9.3	10	7.4	8.7
29	---	---	16	6.3	12	25	12	5.2	8.0	8.0	8.8	5.7
30	---	---	18	6.6	---	23	12	5.2	8.3	7.2	5.6	4.6
31	---	---	13	7.9	---	24	---	83	---	31	4.8	---
TOTAL	---	---	---	445.7	400.7	900.7	470	341.1	942.2	455.9	253.3	161.6
MEAN	---	---	---	14.4	13.8	29.1	15.7	11.0	31.4	14.7	8.17	5.39
MAX	---	---	---	44	41	196	34	83	265	53	23	10
MIN	---	---	---	6.3	6.3	8.8	12	5.1	7.1	6.9	4.8	3.2
CFSM	---	---	---	1.17	1.12	2.36	1.27	.89	2.55	1.20	.66	.44
IN.	---	---	---	1.35	1.21	2.72	1.42	1.03	2.85	1.38	.77	.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1992, BY WATER YEAR (WY)

MEAN	11.0	18.0	21.8	25.3	27.2	31.8	36.0	27.4	15.4	12.3	6.95	9.13
MAX	34.1	34.6	49.2	106	44.7	51.5	73.7	61.3	31.4	46.9	11.4	29.5
(WY)	1980	1986	1984	1979	1979	1983	1983	1984	1992	1984	1978	1979
MIN	3.54	5.60	6.96	5.66	9.93	12.8	9.74	11.0	8.34	4.97	3.35	1.88
(WY)	1983	1985	1981	1981	1980	1981	1985	1992	1987	1983	1980	1980

01396580 SPRUCE RUN AT GLEN GARDNER, NJ--Continued

SUMMARY STATISTICS	DECEMBER 1991 TO SEPTEMBER 1992		WATER YEARS 1978 - 1992		
ANNUAL MEAN	---		20.7		
HIGHEST ANNUAL MEAN	---		33.2		1984
LOWEST ANNUAL MEAN	---		13.2		1981
HIGHEST DAILY MEAN	279	Jun 6	570	Jan 21	1979
LOWEST DAILY MEAN	3.2	Sep 20	1.2	Oct 1	1982
ANNUAL SEVEN-DAY MINIMUM	---		1.5	Oct 1	1982
INSTANTANEOUS PEAK FLOW	1390	Jun 6	1820a	Jan 24	1979
INSTANTANEOUS PEAK STAGE	5.82	Jun 6	7.60b	Jan 24	1979
INSTANTANEOUS LOW FLOW	3.2	Sep 19	1.1	Oct 1	1982
ANNUAL RUNOFF (CFSM)	---		1.68		
ANNUAL RUNOFF (INCHES)	---		22.82		
10 PERCENT EXCEEDS	---		40		
50 PERCENT EXCEEDS	---		11		
90 PERCENT EXCEEDS	---		4.0		

a From rating curve extended above 700 ft^3/s on basis of slope-conveyance computation.
b From high-water mark.
e Estimated.

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 of 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.--15.5 mi^2.

PERIOD OF RECORD.--Water years 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
07...	1100	4.2	185	7.9	5.5	13.0	103	E1.7	20	5
FEB 1992										
05...	1330	16	197	7.6	1.5	14.5	105	E1.0	50	<10
MAR										
17...	1315	24	185	7.6	3.0	13.8	104	0.4	20	<10
MAY										
19...	1330	10	184	8.0	17.0	10.3	106	E1.8	110	130
JUL										
21...	1245	9.5	181	7.9	20.5	9.5	107	<1.0	220	270

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
07...	66	16	6.3	9.7	1.3	45	21	18	0.2
FEB 1992									
05...	61	15	5.6	9.8	1.1	32	21	17	0.1
MAR									
17...	57	14	5.4	11	1.2	25	22	19	0.2
MAY									
19...	54	13	5.2	11	1.3	33	19	18	<0.1
JUL									
21...	58	14	5.6	11	1.5	40	19	17	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
07...	19	123	0.003	0.003	0.98	0.95	0.06	0.10	0.13
FEB 1992									
05...	17	113	0.005	0.006	1.54	1.56	<0.03	<0.03	0.10
MAR									
17...	16	111	0.007	0.007	1.63	1.65	0.05	0.08	0.12
MAY									
19...	16	109	0.017	0.018	1.14	1.15	<0.03	0.12	0.21
JUL									
21...	16	113	0.003	0.005	1.04	1.00	<0.03	<0.03	<0.03

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
07...	0.11	1.1	1.1	0.02	0.08	1.4	0.2	<1	--
FEB 1992									
05...	0.04	1.6	1.6	0.02	0.03	1.2	0.1	<1	--
MAR									
17...	<0.03	1.7	--	0.03	0.03	1.2	0.1	2	0.13
MAY									
19...	0.20	1.4	1.4	0.05	0.07	1.8	--	6	0.16
JUL									
21...	0.09	--	1.1	0.06	0.06	1.7	0.2	3	0.08

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991											
07...	1100	--	<1	<1	5.6	90	210	0.1	1.8	--	<1
07...	1100	11	--	--	--	--	--	--	--	1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
07...	--	--	--	<1	--	6	40	--	20	--
07...	<10	<10	<1	--	<1	--	--	10	--	120

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
07...	6200	--	<10	--	330	--	<0.01	--	<10	--
07...	--	1	--	50	--	<0.10	--	2	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
07...	<1	--	30	1	<1.0	<0.1	1.0	<0.1	<0.1	0.2
07...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
07...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
07...	--	--	--	--	--	--	--	--	--	--

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ

LOCATION.--Lat 40°38'51", long 74°58'09", Hunterdon County, Hydrologic Unit 02030105, on left bank downstream side of bridge on Jutland Road, 0.2 mi south of Van Syckel, 0.8 mi north of Perryville, and 0.3 mi upstream from Spruce Run Reservoir.

DRAINAGE AREA.--11.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1973-77. July 1977 to current year.

REVISED RECORDS.--WDR-NJ 89-1: 1978(P), 1979(P), 1980(P), 1981(P), 1982(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 280.25 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0100	*876	*4.16	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	3.8	6.3	7.4	e8.9	8.2	17	10	20	6.8	6.4	3.9
2	3.7	3.8	7.4	7.5	9.3	8.4	16	10	14	6.4	5.7	3.8
3	3.6	3.8	91	7.5	9.2	8.0	14	9.7	9.7	8.7	5.7	6.9
4	3.6	3.7	35	10	9.1	7.6	14	8.9	8.0	10	5.8	5.4
5	3.5	3.6	14	9.5	9.0	7.4	13	8.7	124	7.1	5.5	4.4
6	3.8	3.6	11	7.9	8.6	7.1	12	8.4	156	9.7	5.2	4.3
7	3.5	3.6	9.7	7.2	8.7	14	12	8.1	28	6.7	5.2	15
8	3.4	3.7	8.6	6.8	8.8	13	12	15	20	6.4	5.2	6.0
9	3.4	3.7	9.7	9.1	8.2	9.8	12	19	15	39	11	4.8
10	3.5	3.7	25	9.0	7.7	16	12	14	12	8.5	6.3	4.8
11	4.1	6.3	12	7.6	7.9	90	20	12	11	6.9	6.7	8.3
12	4.5	4.4	9.6	7.1	7.5	22	14	10	10	6.8	6.0	4.3
13	3.8	4.0	14	6.9	7.6	16	12	9.5	9.5	6.7	5.3	4.0
14	3.6	3.8	15	27	7.7	13	11	8.6	9.0	9.6	6.7	4.0
15	11	3.6	11	14	15	12	11	8.4	8.6	12	5.7	3.9
16	9.3	3.6	9.1	9.1	41	11	12	12	8.2	10	5.9	3.9
17	35	3.5	8.1	e8.1	18	11	14	10	7.9	7.4	15	3.9
18	13	3.4	7.7	e9.0	11	11	14	9.7	7.9	9.3	13	3.9
19	6.1	3.4	6.6	e8.9	13	14	14	8.6	24	6.8	6.7	3.9
20	4.4	3.3	6.5	e12	11	13	13	7.8	16	6.2	5.6	3.6
21	4.0	4.5	7.3	e11	9.3	12	12	7.4	9.6	6.0	4.8	3.8
22	3.9	47	7.1	e8.8	8.3	12	19	7.0	8.6	5.8	4.7	4.3
23	3.8	28	7.2	e13	8.4	12	14	6.5	8.2	17	4.5	5.4
24	3.6	11	6.9	e51	8.5	12	12	6.3	12	9.7	4.4	3.5
25	3.6	7.7	6.4	e11	10	19	12	7.3	9.3	7.5	4.3	3.6
26	3.7	6.4	6.0	e12	31	64	12	7.2	8.0	7.2	4.4	10
27	3.8	5.8	6.1	e11	14	98	13	7.7	7.5	18	4.3	9.9
28	3.8	5.5	5.9	e9.2	11	29	11	6.7	7.1	8.0	6.2	6.2
29	3.6	5.4	15	e9.7	9.6	21	11	6.2	6.8	6.6	5.2	4.4
30	3.7	5.3	14	e9.4	---	19	10	6.5	7.3	6.2	4.3	3.9
31	3.8	---	8.9	e9.4	---	19	---	52	---	6.7	4.0	---
TOTAL	171.8	202.9	408.1	347.1	337.3	629.5	395	329.2	603.2	289.7	189.7	158.0
MEAN	5.54	6.76	13.2	11.2	11.6	20.3	13.2	10.6	20.1	9.35	6.12	5.27
MAX	35	47	91	51	41	98	20	52	156	39	15	15
MIN	3.4	3.3	5.9	6.8	7.5	7.1	10	6.2	6.8	5.8	4.0	3.5
CFSM	.47	.57	1.12	.95	.99	1.72	1.12	.90	1.70	.79	.52	.45
IN.	.54	.64	1.29	1.09	1.06	1.98	1.25	1.04	1.90	.91	.60	.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

MEAN	11.8	16.5	20.0	23.6	24.6	28.0	35.0	28.8	18.8	13.0	9.49	9.54
MAX	35.6	32.6	47.9	79.2	40.2	47.9	94.1	59.2	61.1	53.2	25.3	22.8
(WY)	1990	1986	1984	1979	1979	1978	1984	1984	1989	1984	1990	1989
MIN	4.55	6.34	5.61	5.01	11.1	10.2	6.88	10.6	7.11	5.05	2.84	2.85
(WY)	1983	1985	1981	1981	1980	1985	1985	1992	1991	1991	1980	1980

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1977 - 1992		
ANNUAL TOTAL	4990.0		4061.5				
ANNUAL MEAN	13.7		11.1		19.9		
HIGHEST ANNUAL MEAN					35.2		1984
LOWEST ANNUAL MEAN					11.1		1992
HIGHEST DAILY MEAN	122	Apr 21	156	Jun 6	700	Apr 5	1984
LOWEST DAILY MEAN	2.4	Sep 1	3.3	Nov 20	1.5	Sep 12	1980
ANNUAL SEVEN-DAY MINIMUM	2.5	Sep 9	3.5	Nov 14	1.6	Sep 7	1980
INSTANTANEOUS PEAK FLOW			876	Jun 6	3590a	Sep 20	1989
INSTANTANEOUS PEAK STAGE			4.16	Jun 6	7.41	Sep 20	1989
INSTANTANEOUS LOW FLOW			3.0	Nov 19	1.1	Sep 23	1980
ANNUAL RUNOFF (CFSM)	1.16		.94		1.69		
ANNUAL RUNOFF (INCHES)	15.73		12.80		22.96		
10 PERCENT EXCEEDS	28		16		37		
50 PERCENT EXCEEDS	8.9		8.2		12		
90 PERCENT EXCEEDS	3.1		3.8		4.3		

a From rating curve extended above 200 ft^3/s.
e Estimated.

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
06...	1100	3.6	224	8.2	6.0	13.0	105	<1.0	110	33
FEB 1992										
05...	1045	9.6	219	8.0	1.5	14.6	106	E1.1	<20	10
MAR										
17...	1045	11	--	7.9	2.0	14.0	--	0.3	50	<10
MAY										
19...	1045	8.9	217	8.1	15.5	10.8	108	E1.7	310	70
JUL										
21...	1045	6.3	218	8.0	20.0	9.7	108	<1.0	170	800

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
06...	94	23	8.8	8.2	1.2	81	20	14	0.1
FEB 1992									
05...	80	21	6.8	8.5	1.1	56	20	14	0.1
MAR									
17...	73	19	6.2	8.3	1.1	49	19	14	0.2
MAY									
19...	78	20	6.7	9.1	1.1	59	16	15	<0.1
JUL									
21...	85	22	7.4	9.1	1.3	69	15	14	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
06...	16	144	0.004	0.004	0.88	0.99	0.13	0.09	0.14
FEB 1992									
05...	14	124	0.003	0.003	1.18	1.20	<0.03	0.03	0.17
MAR									
17...	14	117	<0.003	0.003	1.23	1.19	0.09	0.06	0.11
MAY									
19...	14	122	0.007	0.007	0.980	0.960	0.04	<0.03	0.28
JUL									
21...	15	130	0.004	0.004	1.04	0.990	<0.03	<0.03	<0.03

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
06...	0.11	1.0	1.1	<0.02	<0.02	1.3	0.1	<1	--
FEB 1992									
05...	--	1.4	--	<0.02	<0.02	1.1	0.1	<1	--
MAR									
17...	0.13	1.3	1.3	<0.02	0.05	1.4	0.1	3	0.09
MAY									
19...	0.19	1.3	1.2	<0.02	<0.02	2.0	0.2	1	0.02
JUL									
21...	<0.03	--	--	0.04	0.02	1.4	0.2	5	0.08

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991											
06...	1100	--	1	3	4.1	140	220	<0.1	2.4	--	4
06...	1100	10	--	--	--	--	--	--	--	1	--
MAY 1992											
19...	1045	10	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
06...	--	--	--	<1	--	3	<5	--	3	--
06...	<10	20	<1	--	<1	--	--	6	--	40
MAY 1992										
19...	<10	10	<1	--	<1	--	--	1	--	160

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
06...	3100	--	<10	--	170	--	<0.01	--	<10	--
06...	--	2	--	10	--	<0.10	--	2	--	2
MAY 1992										
19...	--	<1	--	40	--	<0.10	--	1	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
06...	<1	--	20	3	<1.0	<0.1	<1.0	<0.1	<0.1	<0.1
06...	--	<10	--	--	--	--	--	--	--	--
MAY 1992										
19...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
06...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
06...	--	--	--	--	--	--	--	--	--	--
MAY 1992										
19...	--	--	--	--	--	--	--	--	--	--

01396800 SPRUCE RUN AT CLINTON, NJ

LOCATION.--Lat 40°38'21", long 74°54'58", Hunterdon County, Hydrologic Unit 02030105, 1,800 ft downstream from dam at Spruce Run Reservoir, 0.2 mi north of Clinton, 0.3 mi upstream from mouth, and 2.2 mi southwest of High Bridge.

DRAINAGE AREA.--41.3 mi^2.

PERIOD OF RECORD.--May 1959 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Mar. 15, 1964. Datum of gage is 193.5 ft above sea level. May to Nov. 24, 1959, nonrecording gage; Nov. 25, 1959 to July 23, 1961, water-stage recorder at site 1,800 ft upstream and at datum 1.41 ft lower; July 24, 1961 to Mar. 14, 1964, water-stage recorder at site 1,500 ft upstream at datum 1.41 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Spruce Run Reservoir (see Raritan River basin, reservoirs in). Several measurements of water temperature, other than those published, were made during the year. New Jersey Water Supply Authority gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	43	25	7.4	50	6.5	6.9	7.4	7.7	7.6	7.1	67
2	54	43	15	7.4	48	6.7	7.0	7.4	7.4	7.0	6.9	76
3	67	41	9.4	7.4	65	7.0	7.1	7.3	7.4	7.2	6.9	69
4	69	44	8.0	7.4	64	7.4	7.2	7.3	7.4	7.0	6.9	7.5
5	76	45	7.4	7.2	74	7.4	7.0	7.4	10	6.9	6.9	7.4
6	87	45	7.4	7.4	93	7.2	7.0	7.4	11	7.0	7.2	7.4
7	82	45	7.4	7.1	95	7.5	7.4	7.3	7.7	7.1	13	8.0
8	76	47	7.4	6.9	95	7.4	7.3	7.6	7.9	30	23	7.4
9	89	51	7.5	7.2	100	7.4	7.4	7.4	7.6	23	15	7.4
10	95	51	7.5	7.4	115	7.6	7.4	7.6	7.4	7.1	6.6	19
11	96	48	7.4	7.4	122	8.2	7.7	7.4	7.6	7.4	7.6	8.2
12	95	23	7.4	7.4	127	7.7	7.3	7.4	7.4	7.4	8.1	7.4
13	95	14	7.5	7.2	124	7.4	7.2	7.4	7.1	7.8	6.9	32
14	95	9.8	7.5	7.7	120	6.9	7.4	7.3	6.7	7.2	7.1	66
15	66	12	7.3	7.1	106	6.8	7.4	7.4	6.6	7.1	6.9	74
16	8.2	26	7.2	56	20	8.5	7.4	7.4	6.5	6.9	6.9	69
17	8.9	40	6.9	98	5.9	5.4	7.5	7.4	6.9	7.1	7.4	72
18	8.4	39	7.0	96	6.6	5.1	7.4	7.4	6.6	7.5	7.3	76
19	8.3	51	66	95	7.0	15	7.4	6.9	7.4	7.4	6.9	76
20	8.1	44	87	94	6.9	11	7.4	7.0	6.9	7.3	6.9	77
21	5.3	41	69	92	6.9	28	7.2	7.2	6.8	7.1	12	99
22	.89	20	69	80	6.9	28	7.2	7.9	7.0	24	24	105
23	.68	7.6	56	35	6.9	16	7.0	20	7.4	19	35	82
24	26	7.4	35	8.1	6.9	6.9	5.6	35	7.8	7.6	42	72
25	63	7.1	35	10	6.9	6.9	5.1	26	7.4	7.0	63	83
26	64	8.2	35	11	7.0	7.5	7.1	16	7.4	7.1	56	48
27	67	8.0	35	12	6.8	8.1	6.6	7.8	7.4	7.3	38	9.0
28	73	7.4	35	9.9	6.5	7.0	6.7	7.5	7.4	6.9	23	7.8
29	73	7.4	25	7.7	6.3	6.9	6.9	7.4	7.4	6.9	12	24
30	65	17	8.5	9.8	---	6.9	6.7	7.6	7.6	7.0	32	64
31	40	---	7.4	22	---	6.9	---	9.1	---	7.6	63	---
TOTAL	1710.77	892.9	723.1	846.1	1505.5	283.2	211.9	298.6	224.8	290.5	571.5	1427.5
MEAN	55.2	29.8	23.3	27.3	51.9	9.14	7.06	9.63	7.49	9.37	18.4	47.6
MAX	96	51	87	98	127	28	7.7	35	11	30	63	105
MIN	.68	7.1	6.9	6.9	5.9	5.1	5.1	6.9	6.5	6.9	6.6	7.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

MEAN	57.8	32.3	45.0	60.8	64.1	78.7	97.0	72.0	59.8	69.5	51.6	76.0
MAX	290	96.2	196	258	162	158	342	225	278	244	132	241
(WY)	1990	1990	1974	1979	1971	1983	1983	1984	1972	1975	1983	1989
MIN	.000	.000	.000	.000	.000	.19	.86	.81	2.60	4.24	4.32	.50
(WY)	1964	1964	1964	1964	1964	1964	1964	1964	1981	1964	1963	1963

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1959 - 1992	
ANNUAL TOTAL	26469.27		8986.37			
ANNUAL MEAN	72.5		24.6		63.7	
HIGHEST ANNUAL MEAN					107	1983
LOWEST ANNUAL MEAN					3.81	1964
HIGHEST DAILY MEAN	336	Jan 17	127	Feb 12	2060	Jul 7 1984
LOWEST DAILY MEAN	.68	Oct 23	.68	Oct 23	.00a	Aug 22 1963
ANNUAL SEVEN-DAY MINIMUM	5.8	Oct 17	5.8	Oct 17	.00a	Aug 22 1963
INSTANTANEOUS PEAK FLOW			127	Feb 11	6410	Apr 2 1970
INSTANTANEOUS PEAK STAGE			1.97	Feb 11	5.17	Apr 2 1970
INSTANTANEOUS LOW FLOW			.65	Oct 23	.00a	Aug 22 1963
10 PERCENT EXCEEDS	133		74		145	
50 PERCENT EXCEEDS	67		7.5		39	
90 PERCENT EXCEEDS	9.7		6.9		7.0	

a Result of reservoir filling.

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ

LOCATION.--Lat 40°34'21", long 74°52'10", 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to December 1906, July 1919 to current year. Monthly discharge only for some periods published in WSP 1302.

REVISED RECORDS.--WSP 561: Drainage area. WSP 1552: 1904, 1922-24(M), 1928-29(M), 1933-35(M). WDR NJ-88-1: 1982.

GAGE.--Water-stage recorder. Datum of gage is 125.01 ft above sea level. Prior to Aug. 17, 1925, nonrecording gage on downstream side of highway bridge at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Spruce Run Reservoir since September 1963 (see Raritan River basin, reservoirs in). Occasional regulation at low flows by ponds above station. Water diverted by Hamden Pumping Station, 4.0 mi upstream, into Round Valley Reservoir since February 1966 (see Raritan River basin, diversions). Water can be released (maximum rate 186 ft^3/s) from Round Valley Reservoir at Hamden Pumping Station since July 1990. Several measurements of water temperature were made during the year. New Jersey Water Supply Authority gage-height and National Weather Service telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	136	94	91	138	113	226	95	486	95	263	125
2	127	136	92	88	129	113	207	88	188	88	132	125
3	141	133	527	88	142	110	190	87	129	87	100	169
4	140	138	608	99	138	106	176	88	108	122	96	301
5	141	147	215	127	139	104	166	87	270	100	86	140
6	155	143	155	107	162	101	157	87	2050	115	79	100
7	155	139	135	94	159	125	152	86	544	97	76	106
8	142	141	123	87	161	231	150	92	340	81	87	95
9	146	146	119	91	161	153	140	95	473	316	131	87
10	172	145	178	101	172	133	145	98	250	138	114	87
11	156	146	146	93	179	496	186	102	207	99	97	130
12	159	122	121	87	180	267	164	90	180	89	105	102
13	156	116	127	88	180	187	135	86	163	93	89	89
14	153	124	141	139	179	165	130	85	151	139	89	125
15	157	118	131	209	185	153	126	93	142	122	85	130
16	140	113	113	144	272	142	124	106	130	128	84	124
17	188	118	102	189	153	137	120	118	124	103	111	120
18	212	138	98	178	119	129	80	103	119	114	154	125
19	120	140	131	164	122	162	78	96	162	97	116	125
20	94	127	210	182	128	146	110	88	265	86	93	123
21	90	130	147	183	114	159	96	85	144	80	84	137
22	112	190	142	163	105	155	115	83	124	87	92	150
23	115	425	137	141	102	151	121	87	122	113	101	148
24	103	160	113	403	104	130	108	94	132	140	97	125
25	124	112	107	176	108	134	96	106	173	96	128	124
26	124	94	102	140	202	204	91	92	127	85	134	142
27	121	86	101	118	194	1080	109	85	111	127	124	108
28	130	80	101	123	140	438	99	83	113	98	103	104
29	128	77	126	111	129	291	97	76	100	83	97	87
30	141	79	154	109	---	249	95	74	100	79	96	108
31	146	---	115	108	---	250	---	240	---	112	116	---
TOTAL	4316	4099	4911	4221	4396	6514	3989	2975	7727	3409	3359	3761
MEAN	139	137	158	136	152	210	133	96.0	258	110	108	125
MAX	212	425	608	403	272	1080	226	240	2050	316	263	301
MIN	90	77	92	87	102	101	78	74	100	79	76	87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1992, BY WATER YEAR (WY)

MEAN	162	205	259	281	319	398	371	269	192	177	163	162
MAX	641	659	767	1099	807	1057	1137	750	967	752	793	554
(WY)	1904	1952	1974	1979	1925	1936	1983	1989	1972	1975	1955	1989
MIN	34.1	46.2	65.1	55.0	61.2	61.3	58.5	80.3	60.1	40.7	30.1	31.0
(WY)	1964	1965	1966	1966	1967	1981	1981	1965	1965	1955	1957	1957

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1904 - 1992	
ANNUAL TOTAL	84878		53677			
ANNUAL MEAN	233		147		246	
HIGHEST ANNUAL MEAN					413	1952
LOWEST ANNUAL MEAN					95.0	1966
HIGHEST DAILY MEAN	1420	Jan 17	2050	Jun 6	8060	Aug 19 1955
LOWEST DAILY MEAN	77	Nov 29	74	May 30	12	Oct 18 1963
ANNUAL SEVEN-DAY MINIMUM	86	Nov 26	86	Nov 26	25	Sep 4 1957
INSTANTANEOUS PEAK FLOW			3670	Jun 6	18000a	Aug 19 1955
INSTANTANEOUS PEAK STAGE			7.75	Jun 6	15.22	Aug 19 1955
INSTANTANEOUS LOW FLOW			66	Oct 24	9.0	Nov 7 1931
10 PERCENT EXCEEDS	414		190		485	
50 PERCENT EXCEEDS	176		124		164	
90 PERCENT EXCEEDS	116		87		62	

a From rating curve extended above 6,400 ft^3/s on basis of computation of flow over Clinton Dam, 6.5 mi upstream, at gage height 10.72 ft, contracted-opening measurement 1.7 mi downstream, and slope-area measurement 0.4 mi downstream at gage height 15.22 ft, adjusted to present site.

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-81, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
14...	1230	128	230	8.9	9.0	11.9	104	E1.8	50	11
FEB 1992										
04...	1030	139	249	8.2	1.0	14.5	103	E2.4	<20	20
MAR										
16...	1300	139	233	8.5	2.5	14.7	108	0.7	<20	<10
JUN										
02...	1330	170	185	7.8	17.0	9.6	100	E1.9	790	--
JUL										
20...	1000	85	251	8.5	23.0	9.4	110	E1.4	90	30

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
14...	73	17	7.4	8.2	1.5	60	15	16	0.1
FEB 1992									
04...	85	20	8.5	11	1.5	63	17	19	0.1
MAR									
16...	77	18	7.7	12	1.3	65	18	23	0.1
JUN									
02...	55	13	5.5	9.0	1.4	41	13	16	<0.1
JUL									
20...	95	22	9.8	12	1.9	74	14	22	0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
14...	3.2	109	0.018	0.018	1.04	0.98	<0.03	<0.03	0.33
FEB 1992									
04...	7.9	129	0.007	0.007	1.49	1.44	0.28	0.27	0.41
MAR									
16...	11	137	0.013	0.016	1.73	1.58	0.23	0.19	0.26
JUN									
02...	10	97	0.035	0.033	1.01	1.02	<0.03	0.07	0.61
JUL									
20...	11	144	0.055	0.052	1.50	1.48	<0.03	<0.03	0.28

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
14...	0.23	1.4	1.2	<0.02	<0.02	3.4	0.3	2	0.69
FEB 1992									
04...	0.30	1.9	1.7	0.03	0.04	2.0	0.3	3	1.1
MAR									
16...	0.25	2.0	1.8	0.04	0.03	0.5	0.3	7	2.6
JUN									
02...	0.49	1.6	1.5	0.09	0.05	5.7	0.6	10	4.6
JUL									
20...	0.26	1.8	1.7	0.11	0.09	2.9	0.3	4	0.92

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991											
14...	1230	--	<1	<1	4.0	220	350	<0.1	1.8	--	6
14...	1230	12	--	--	--	--	--	--	--	<1	--
JUN 1992											
02...	1330	18	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
14...	--	--	--	<1	--	7	<5	--	20	--
14...	<10	60	<1	--	<1	--	--	--	--	110
JUN 1992										
02...	<10	20	<1	--	<1	--	--	2	--	450

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
14...	5600	--	10	--	800	--	<0.01	--	<10	--
14...	--	1	--	30	--	<0.10	--	2	--	<1
JUN 1992										
02...	--	2	--	70	--	<0.10	--	1	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
14...	<1	--	50	<1	<1.0	<0.1	1.0	0.2	0.4	0.3
14...	--	20	--	--	--	--	--	--	--	--
JUN 1992										
02...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
14...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
14...	--	--	--	--	--	--	--	--	--	--
JUN 1992										
02...	--	--	--	--	--	--	--	--	--	--

01397400 SOUTH BRANCH RARITAN RIVER AT THREE BRIDGES, NJ

LOCATION.--Lat 40°31'01", long 74°48'12", Hunterdon County, Hydrologic Unit 02030105, at bridge on Main Street in Three Bridges, 0.4 mi northeast of Voorhees Corner, 1.3 mi downstream of Bushkill Brook, and 2.2 mi southeast of Darts Mills.

DRAINAGE AREA.--181 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
14...	1400	120	369	8.0	8.5	10.9	93	E2.3	20	49
FEB 1992										
04...	1315	160	307	8.1	2.0	14.7	108	E1.8	20	60
MAR										
16...	1030	210	328	8.6	2.5	13.4	99	1.0	20	<10
JUN										
01...	1200	470	193	7.5	15.5	9.4	96	3.0	9200	--
JUL										
20...	1230	96	388	8.3	25.5	9.0	110	<1.1	130	40

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
14...	99	25	8.9	28	3.0	76	45	35	0.2
FEB 1992									
04...	94	23	8.8	19	1.9	67	26	26	0.1
MAR									
16...	83	20	8.0	21	2.0	61	29	32	0.1
JUN									
01...	53	13	5.1	13	1.9	39	17	20	<0.1
JUL									
20...	110	26	10	32	3.4	87	37	37	0.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
14...	3.5	201	0.017	0.016	1.54	1.35	0.57	0.43	1.1
FEB 1992									
04...	8.1	161	0.009	0.007	1.85	1.81	0.21	0.17	0.47
MAR									
16...	11	170	0.015	0.015	2.64	2.36	0.18	0.15	0.44
JUN									
01...	8.7	108	0.028	0.025	1.24	1.25	0.06	0.04	1.0
JUL									
20...	11	222	0.018	0.017	2.90	2.87	0.06	0.03	0.39

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
14...	0.96	2.6	2.3	0.37	--	4.1	0.4	1	0.32
FEB 1992									
04...	0.28	2.3	2.1	0.16	0.16	2.4	0.2	1	0.43
MAR									
16...	0.24	3.1	2.6	0.26	0.18	--	0.3	5	2.8
JUN									
01...	0.72	2.3	2.0	0.57	0.19	6.3	1.3	31	39
JUL									
20...	0.36	3.3	3.2	0.50	0.48	3.4	0.3	3	0.78

01397400 SOUTH BRANCH RARITAN RIVER AT THREE BRIDGES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)
NOV 1991										
14...	1400	--	1	4	5.2	390	3200	0.2	5.2	--
14...	1400	22	--	--	--	--	--	--	--	<1

DATE	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
14...	26	--	--	--	<1	--	10	10	30	--
14...	--	<10	60	<1	--	1	--	--	--	120

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
14...	12000	--	30	--	970	--	0.04	--	10	--
14...	--	<1	--	40	--	<0.10	--	3	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
14...	<1	--	80	7	<1.0	<0.1	2.0	0.6	<1.0	1.1
14...	--	100	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
14...	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<10	<0.1	<1.00	<10
14...	--	--	--	--	--	--	--	--	--	--

01398000 NESHANIC RIVER AT REAVILLE, NJ

LOCATION.--Lat 40°28'18", long 74°49'42", Hunterdon County, Hydrologic Unit 02030105, on left bank 50 ft downstream from 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1930 to current year.

REVISED RECORDS.--WSP 1552: 1933, 1934(M), 1936(M), 1938, 1940(M), 1942(M), 1945-46, 1951, 1952(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 26, 1935. Datum of gage is 109.46 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0215	*5,440	*10.46	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	5.4	10	e16	e10	22	36	11	15	e3.3	25	.79
2	7.3	5.3	13	e15	e9.0	21	32	10	9.5	e2.9	7.4	.72
3	6.4	4.9	425	e20	e8.7	20	27	9.2	6.6	14	5.2	3.8
4	5.6	4.5	200	e25	e7.7	18	24	8.2	5.4	6.7	4.3	3.8
5	4.8	4.4	63	e23	e7.0	17	22	7.9	326	3.6	3.6	1.6
6	5.0	4.2	47	e20	e6.8	16	19	7.4	1260	16	2.9	1.3
7	4.5	4.2	36	e17	e7.0	47	18	7.0	103	4.2	2.5	1.9
8	3.7	4.2	29	e18	e6.3	50	17	13	66	3.2	2.2	2.2
9	3.4	4.2	27	e19	e5.4	33	16	15	46	16	2.9	1.6
10	3.2	4.2	72	e17	e5.0	38	15	19	32	4.4	2.3	1.7
11	3.6	8.7	37	e16	e4.8	199	21	13	24	3.5	3.5	12
12	4.6	5.9	30	e15	e4.7	65	17	9.7	19	3.6	3.0	2.3
13	3.3	5.0	40	e26	e5.0	48	14	8.9	15	3.6	2.0	1.5
14	2.8	4.5	46	e37	e7.1	37	13	7.9	13	3.1	4.1	1.3
15	7.1	4.2	34	e29	e16	31	12	6.9	11	17	3.0	1.1
16	8.2	4.2	26	e23	75	26	14	25	8.6	19	3.3	1.1
17	49	3.8	22	e18	28	24	17	14	7.7	4.6	6.0	1.0
18	31	3.7	20	e16	27	22	18	10	6.9	5.2	9.4	.94
19	19	3.7	e12	e15	38	31	23	8.5	9.8	3.5	4.0	.91
20	14	3.6	e13	e14	34	30	17	7.3	9.4	2.8	2.9	.82
21	11	3.6	e12	e13	28	34	16	6.7	6.5	2.5	2.3	.79
22	10	40	e11	e12	24	34	23	6.1	5.8	2.6	1.9	1.3
23	9.0	58	e9.8	35	24	39	28	5.6	5.4	8.6	1.7	5.4
24	8.4	24	e8.2	80	23	37	18	5.2	6.3	5.5	1.5	1.3
25	8.0	16	e7.4	32	22	42	17	5.4	5.6	3.5	1.4	.93
26	7.6	13	e6.4	e19	68	91	15	5.3	4.8	3.0	1.5	15
27	7.3	10	e6.1	e18	41	240	14	5.4	4.3	19	1.3	9.8
28	6.8	9.2	e11	e16	34	79	13	4.7	3.9	5.5	2.2	7.3
29	5.8	8.3	e24	e15	29	55	13	4.1	3.4	3.8	2.9	3.4
30	5.8	7.6	e20	e14	---	45	11	3.8	3.1	3.0	1.3	2.4
31	5.8	---	e15	e12	---	48	---	28	---	67	.94	---
TOTAL	280.3	282.5	1332.9	665	605.5	1539	560	299.2	2043.0	264.2	118.44	90.00
MEAN	9.04	9.42	43.0	21.5	20.9	49.6	18.7	9.65	68.1	8.52	3.82	3.00
MAX	49	58	425	80	75	240	36	28	1260	67	25	15
MIN	2.8	3.6	6.1	12	4.7	16	11	3.8	3.1	2.5	.94	.72
CFSM	.35	.37	1.67	.83	.81	1.93	.73	.38	2.65	.33	.15	.12
IN.	.41	.41	1.93	.96	.88	2.23	.81	.43	2.96	.38	.17	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1992, BY WATER YEAR (WY)

MEAN	13.0	34.0	46.4	51.5	59.2	73.9	55.5	33.4	21.6	18.4	19.0	16.0
MAX	78.8	139	162	244	147	179	200	135	119	138	216	135
(WY)	1956	1933	1984	1979	1939	1936	1983	1989	1972	1938	1971	1989
MIN	.67	.90	1.59	1.14	3.92	15.2	7.20	3.78	1.11	.37	.44	.47
(WY)	1965	1966	1966	1981	1934	1985	1985	1963	1965	1966	1964	1965

01398000 NESHANIC RIVER AT REAVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1931 - 1992	
ANNUAL TOTAL	11202.8		8080.04			
ANNUAL MEAN	30.7		22.1		36.7	
HIGHEST ANNUAL MEAN					67.1	1979
LOWEST ANNUAL MEAN					14.5	1965
HIGHEST DAILY MEAN	425	Dec 3	1260	Jun 6	4740	Aug 28 1971
LOWEST DAILY MEAN	1.1	Jul 22	.72	Sep 2	.00	Jul 29 1965
ANNUAL SEVEN-DAY MINIMUM	1.4	Jul 16	.95	Sep 15	.00	Aug 4 1966
INSTANTANEOUS PEAK FLOW			5440	Jun 6	15900a	Aug 28 1971
INSTANTANEOUS PEAK STAGE			10.46	Jun 6	13.84b	Aug 28 1971
INSTANTANEOUS LOW FLOW			---		.00	Jul 17 1968
ANNUAL RUNOFF (CFSM)	1.19		.86		1.43	
ANNUAL RUNOFF (INCHES)	16.22		11.70		19.41	
10 PERCENT EXCEEDS	69		37		75	
50 PERCENT EXCEEDS	13		9.4		12	
90 PERCENT EXCEEDS	2.2		2.5		1.4	

a From rating curve extended above 1,700 ft^3/s on basis of slope-area measurement 0.7 mi downstream (adjusted to present site) at gage height 11.90 ft.
b From high-water mark in gage house.
e Estimated.

01398000 NESHANIC RIVER AT REAVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1962, 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
29...	1300	5.7	324	8.0	8.5	9.4	81	4.3	700	79
FEB 1992										
06...	1030	14	672	7.9	0.5	15.2	106	E2.4	110	10
MAR										
18...	1045	22	295	8.1	5.5	15.3	121	0.4	790	<10
MAY										
27...	1300	5.2	468	8.0	14.5	12.1	120	<1.0	3500	70
JUL										
23...	1030	2.8	338	8.0	21.5	5.6	64	<1.0	9200	2000

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
29...	140	36	11	13	2.6	82	51	18	<0.1
FEB 1992									
06...	210	58	15	45	1.7	65	60	120	0.1
MAR									
18...	91	24	7.6	17	1.5	43	39	30	<0.1
MAY									
27...	170	47	12	26	1.8	69	74	46	0.3
JUL									
23...	130	34	11	17	2.0	91	58	17	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
29...	8.2	193	0.009	0.009	0.99	1.00	0.05	<0.03	1.3
FEB 1992									
06...	10	358	0.011	0.010	1.96	1.97	0.06	0.05	0.29
MAR									
18...	11	166	0.011	0.011	2.39	2.36	0.09	0.07	0.22
MAY									
27...	8.0	260	0.034	0.034	0.79	0.82	<0.03	<0.03	0.46
JUL									
23...	3.1	198	0.014	0.014	0.37	0.41	0.05	<0.03	0.29

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
29...	0.47	2.3	1.5	0.03	0.03	5.6	0.3	1	0.02
FEB 1992									
06...	0.27	2.3	2.2	0.04	<0.02	1.6	0.2	2	0.08
MAR									
18...	0.19	2.6	2.6	0.04	0.02	1.9	0.2	6	0.36
MAY									
27...	0.57	1.2	1.4	0.07	0.05	4.3	0.3	3	0.04
JUL									
23...	0.23	0.66	0.64	0.05	0.04	3.7	0.3	3	0.02

01398000 NESHANIC RIVER AT REAVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
OCT 1991											
29...	1300	--	6	28	40	1700	190	1.1	17	--	5
29...	1300	21	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991										
29...	--	--	--	<1	--	9	<5	--	40	--
29...	<10	80	<1	--	<1	--	--	19	--	160

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991										
29...	7800	--	40	--	530	--	0.01	--	20	--
29...	--	2	--	30	--	<0.10	--	2	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
29...	<1	--	150	9	<1.0	<0.1	11	0.3	<1.0	0.2
29...	--	40	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
29...	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<0.1	<1.00	<10
29...	--	--	--	--	--	--	--	--	--	--

01398107 HOLLAND BROOK AT READINGTON, NJ

LOCATION.--Lat 40°33'30", long 74°43'50", Somerset County, Hydrologic Unit 02030105, on right bank 15 ft downstream from bridge on Old York Road, 0.9 mi southeast of Readington, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--9.00 mi^2.

PERIOD OF RECORD.--June 1978 to current year.

REVISED RECORDS.--WDR NJ-80-1: 1978, 1979(P). WDR NJ-82-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete parking-block control. Datum of gage is 77.65 ft above sea level (levels by Somerset County).

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Gage-height and rainfall radio telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0245	*511	*4.83	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.0	3.6	9.0	5.6	10	13	4.3	7.4	1.9	6.7	1.3
2	2.4	2.0	4.4	8.8	5.0	9.5	12	4.3	5.2	1.7	4.1	1.1
3	2.3	1.8	131	8.1	4.6	8.4	11	4.0	3.8	2.2	3.5	1.4
4	2.0	1.8	69	11	4.5	7.4	9.7	3.7	3.3	3.9	3.3	2.2
5	1.8	1.6	26	11	4.1	6.7	8.6	3.7	46	2.2	2.7	1.4
6	2.3	1.6	19	11	3.7	6.3	7.4	3.3	148	3.0	2.3	1.3
7	1.8	1.6	14	9.9	3.9	14	7.1	3.1	30	1.9	2.0	1.6
8	1.5	1.5	12	8.6	3.9	17	6.7	4.8	20	1.6	1.9	1.6
9	1.4	1.4	11	9.4	3.2	15	6.1	5.2	14	11	7.2	1.3
10	1.6	1.4	23	9.4	2.8	16	5.8	4.9	10	2.7	3.0	1.5
11	1.9	2.5	16	8.3	3.0	44	7.4	4.2	8.5	2.2	3.8	3.8
12	2.2	1.9	14	7.7	2.6	26	5.9	3.7	6.8	2.0	3.4	1.5
13	1.7	1.8	15	7.7	2.6	19	4.9	3.7	5.8	1.9	2.7	1.3
14	1.6	1.6	16	16	3.1	15	4.9	3.5	5.1	2.6	3.8	1.4
15	2.8	1.6	15	14	5.7	12	4.7	3.1	4.7	2.6	2.8	1.4
16	2.8	1.6	13	12	16	10	5.0	6.7	4.1	3.7	2.9	1.3
17	19	1.6	11	11	9.6	9.5	5.9	4.4	3.7	2.0	2.9	1.3
18	11	1.6	9.9	9.2	9.6	8.5	6.1	4.0	3.5	2.2	4.2	1.1
19	7.2	1.6	7.5	7.3	11	9.9	6.0	3.6	4.3	1.8	3.5	1.0
20	5.3	1.6	6.9	6.9	11	9.1	5.8	3.2	4.2	1.6	3.0	.98
21	4.2	1.7	7.1	6.5	11	9.2	6.1	3.0	3.3	1.5	2.6	.92
22	3.7	10	6.3	5.4	9.8	9.8	6.8	2.7	3.1	1.4	2.3	1.5
23	3.2	16	6.1	11	9.5	10	7.6	2.5	2.8	3.8	2.2	1.5
24	2.9	10	5.4	16	8.9	10	7.1	2.3	3.5	2.6	2.0	1.0
25	2.8	7.3	4.6	11	8.7	14	6.9	2.3	3.1	1.9	1.8	1.1
26	2.5	5.7	4.1	9.7	20	30	6.3	2.1	2.7	2.0	2.3	3.0
27	2.5	4.7	3.9	8.5	17	85	5.8	2.2	2.5	6.3	2.4	3.1
28	2.1	4.3	3.7	7.8	15	33	5.2	1.9	2.3	2.6	1.7	2.6
29	2.0	3.9	11	7.2	12	23	5.0	1.8	2.0	2.1	1.6	1.7
30	2.0	3.7	11	6.7	---	18	4.7	1.7	2.0	1.8	1.4	1.5
31	2.0	---	9.8	6.6	---	17	---	9.3	---	17	1.4	---
TOTAL	105.0	101.4	510.3	292.7	227.4	532.3	205.5	113.2	365.7	97.7	91.4	47.70
MEAN	3.39	3.38	16.5	9.44	7.84	17.2	6.85	3.65	12.2	3.15	2.95	1.59
MAX	19	16	131	16	20	85	13	9.3	148	17	7.2	3.8
MIN	1.4	1.4	3.6	5.4	2.6	6.3	4.7	1.7	2.0	1.4	1.4	.92
CFSM	.38	.38	1.83	1.05	.87	1.91	.76	.41	1.35	.35	.33	.18
IN.	.43	.42	2.11	1.21	.94	2.20	.85	.47	1.51	.40	.38	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1992, BY WATER YEAR (WY)

MEAN	7.81	14.5	18.1	21.7	22.4	23.1	23.8	20.0	9.51	6.74	6.52	5.76
MAX	25.4	34.4	56.1	102	56.4	49.5	59.4	53.3	28.1	26.4	27.5	21.8
(WY)	1990	1986	1984	1979	1979	1983	1983	1989	1989	1984	1990	1989
MIN	1.10	2.85	1.93	1.93	4.69	7.05	3.02	3.65	3.14	1.63	1.23	1.13
(WY)	1983	1983	1981	1981	1980	1985	1985	1992	1991	1980	1983	1983

01398107 HOLLAND BROOK AT READINGTON, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1978 - 1992	
ANNUAL TOTAL	4091.38		2690.30			
ANNUAL MEAN	11.2		7.35		14.9	
HIGHEST ANNUAL MEAN					25.7	1979
LOWEST ANNUAL MEAN					7.06	1985
HIGHEST DAILY MEAN	171	Jan 17	148	Jun 6	504	Jan 21 1979
LOWEST DAILY MEAN	.98	Sep 18	.92	Sep 21	.37	Aug 28 1980
ANNUAL SEVEN-DAY MINIMUM	1.1	Sep 12	1.1	Sep 15	.61	Oct 11 1980
INSTANTANEOUS PEAK FLOW			511	Jun 6	1300a	Jul 7 1984
INSTANTANEOUS PEAK STAGE			4.83	Jun 6	8.08	Jul 7 1984
INSTANTANEOUS LOW FLOW			.92	Sep 19	.22	Aug 28 1980
ANNUAL RUNOFF (CFSM)	1.25		.82		1.65	
ANNUAL RUNOFF (INCHES)	16.91		11.12		22.42	
10 PERCENT EXCEEDS	22		14		31	
50 PERCENT EXCEEDS	5.4		4.1		6.2	
90 PERCENT EXCEEDS	1.5		1.6		1.5	

a From rating curve extended above 650 ft^3/s.

01398260 NORTH BRANCH RARITAN RIVER NEAR CHESTER, NJ

LOCATION.--Lat 40°46'16", long 74°37'34", Morris County, Hydrologic Unit 02030105, at bridge on State Route 24, 0.8 mi upstream from Burnett Brook, and 3.8 mi east of Chester.

DRAINAGE AREA.--7.57 mi^2.

PERIOD OF RECORD.--Water years 1964-65, 1967, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
20...	1230	3.3	306	8.5	10.0	14.0	125	E2.0	<20	7
FEB 1992										
05...	1330	4.5	--	--	1.5	13.4	--	E2.0	40	10
MAR										
18...	1315	9.0	--	8.1	3.0	12.7	--	0.5	<20	<10
JUN										
01...	1045	21	166	7.5	13.5	10.3	101	E1.7	5400	--
JUL										
29...	1045	2.6	264	7.7	17.5	9.5	101	<1.0	460	130

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
20...	89	22	8.3	20	3.4	58	17	40	0.1
FEB 1992									
05...	71	18	6.4	15	1.6	47	16	37	0.1
MAR									
18...	63	16	5.5	13	1.6	39	15	30	<0.1
JUN									
01...	44	11	3.9	12	1.6	27	11	25	<0.1
JUL									
29...	84	21	7.6	17	2.2	51	15	33	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
20...	13	174	0.052	0.051	3.41	3.45	0.11	0.18	0.30
FEB 1992									
05...	15	146	0.011	0.010	--	1.87	0.06	<0.03	0.19
MAR									
18...	13	125	0.010	0.010	1.94	1.72	0.10	0.11	0.15
JUN									
01...	12	96	0.028	0.028	0.63	0.61	0.21	0.19	0.84
JUL									
29...	17	158	0.060	0.061	3.21	3.19	0.03	0.04	0.16

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
20...	0.26	3.7	3.7	0.23	0.05	2.6	0.3	1	0.01
FEB 1992									
05...	0.08	--	1.9	0.06	0.02	2.7	1.0	1	0.01
MAR									
18...	0.27	2.1	2.0	0.07	0.04	2.4	0.4	2	0.05
JUN									
01...	0.67	1.5	1.3	0.09	0.05	6.8	0.5	8	0.45
JUL									
29...	0.27	3.4	3.5	0.28	0.20	13	0.4	2	0.01

01398260 NORTH BRANCH RARITAN RIVER NEAR CHESTER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)
NOV 1991										
20...	1230	--	<1	<1	21	140	340	<0.1	1.5	--
20...	1230	20	--	--	--	--	--	--	--	<1

DATE	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
20...	1	--	--	--	<1	--	5	<5	10	--
20...	--	<10	50	<1	--	<1	--	--	--	40

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
20...	5300	--	<10	--	170	--	<0.01	--	<10	--
20...	--	<1	--	<10	--	0.10	--	1	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
20...	<1	--	<10	16	<1.0	<0.1	4.0	0.6	0.6	1.7
20...	--	30	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
20...	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<10	<0.1	<1.00	<10
20...	--	--	--	--	--	--	--	--	--	--

01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ

LOCATION.--Lat 40°42'30", long 74°38'11", Somerset County, Hydrologic Unit 02030105, on left bank 75 ft upstream from Ravine Lake Dam, 1.6 mi north of Far Hills, and 2.3 mi upstream from Peapack Brook.

DRAINAGE AREA.--26.2 mi^2.

PERIOD OF RECORD.--October 1921 to September 1975, October 1977 to current year. Operated as crest-stage gage, water years 1976-77. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23, 1924-25(M), 1935(M). WSP 1902: 1954.

GAGE.--Water-stage recorder and crest-stage gage above masonry dam. Datum of gage is 224.49 ft above sea level (New Jersey Geological Survey bench mark). Prior to June 18, 1925, nonrecording gage in stilling box at left end of dam at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Records given herein include diversion by small turbine at dam (average discharge, 3.0 ft^3/s) and returned to river 1,000 ft downstream from Ravine Lake Dam. Turbine operating from May 21 to Sept. 30. Flow regulated occasionally by operation of waste gate in dam (no gate openings this year). Recording rain gage, with telemeter, 500 ft downstream of station. Several measurements of water temperature were made during the year. Gage-height and rain-gage radio telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stage of 7.6 ft, from floodmark, occurred July 23, 1919, discharge about 7,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 27	0130	859	3.56	June 5	2300	*1,480	*4.21

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	11	17	20	23	27	63	37	98	34	e95	11
2	8.5	13	18	21	18	28	59	37	54	33	e31	11
3	9.0	13	140	20	21	27	53	35	44	34	e27	11
4	11	12	107	40	20	26	50	34	38	48	e30	42
5	11	12	43	46	19	26	47	35	422	36	e27	19
6	16	12	34	32	17	26	44	35	478	38	e24	17
7	17	12	29	26	19	53	43	32	138	33	18	17
8	15	12	26	23	20	68	42	35	148	30	17	17
9	15	11	27	24	18	46	41	61	122	101	43	e23
10	14	12	49	30	14	43	45	45	76	39	35	e22
11	15	16	34	26	18	112	70	40	65	34	e26	31
12	19	21	27	23	15	52	49	35	60	33	e26	19
13	19	16	29	23	15	45	42	34	55	35	e21	15
14	16	14	35	57	19	43	40	33	51	47	e27	13
15	17	14	30	46	23	42	38	30	49	36	e23	11
16	38	14	25	30	83	39	41	35	46	36	e25	e15
17	41	13	21	21	39	39	56	36	45	33	e30	e15
18	48	12	22	25	32	38	53	32	42	40	e38	e14
19	31	13	15	18	34	48	49	29	61	33	e27	e14
20	25	13	18	19	33	44	45	26	54	31	e23	e13
21	22	14	19	21	28	41	42	26	42	29	e21	e12
22	22	58	19	20	26	40	48	22	40	25	e20	e14
23	22	87	19	32	25	40	69	21	38	25	17	e21
24	19	37	19	76	26	37	45	20	46	30	17	12
25	19	25	18	34	28	39	67	25	44	19	15	12
26	20	20	16	30	60	88	47	23	39	16	15	18
27	21	17	16	24	44	310	44	26	39	23	e20	e29
28	13	16	16	26	36	99	41	23	37	17	e21	e32
29	11	16	30	25	33	68	39	21	34	14	19	e20
30	11	16	41	23	---	65	38	22	37	13	16	16
31	10	---	27	24	---	77	---	170	---	101	14	---
TOTAL	584.2	572	986	905	806	1776	1450	1115	2542	1096	808	536
MEAN	18.8	19.1	31.8	29.2	27.8	57.3	48.3	36.0	84.7	35.4	26.1	17.9
MAX	48	87	140	76	83	310	70	170	478	101	95	42
MIN	8.5	11	15	18	14	26	38	20	34	13	14	11
CFSM	.72	.73	1.21	1.11	1.06	2.19	1.84	1.37	3.23	1.35	.99	.68
IN.	.83	.81	1.40	1.28	1.14	2.52	2.06	1.58	3.61	1.56	1.15	.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	25.6	42.4	49.1	53.3	59.6	80.5	81.6	59.8	39.2	30.9	28.7	27.5
MAX	97.4	170	124	182	128	207	226	178	190	132	153	134
(WY)	1956	1928	1974	1979	1973	1936	1983	1989	1972	1984	1942	1971
MIN	6.29	9.22	8.43	6.76	22.1	22.8	26.8	20.0	10.5	4.41	4.55	3.61
(WY)	1954	1965	1981	1981	1934	1981	1985	1965	1965	1966	1965	1964

01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	14424.2		13176.2			
ANNUAL MEAN	39.5		36.0		48.1	
HIGHEST ANNUAL MEAN					89.7	1928
LOWEST ANNUAL MEAN					17.7	1965
HIGHEST DAILY MEAN	300	Jan 17	478	Jun 6	1260	Apr 5 1984
LOWEST DAILY MEAN	4.7	Aug 7	8.5	Oct 2	.20	Oct 22 1953
ANNUAL SEVEN-DAY MINIMUM	6.7	Jul 15	12	Oct 29	.20	Oct 22 1953
INSTANTANEOUS PEAK FLOW			1480	Jun 5	6390a	Aug 28 1971
INSTANTANEOUS PEAK STAGE			4.21	Jun 5	7.28	Aug 28 1971
INSTANTANEOUS LOW FLOW			8.5	Oct 1	.00b	
ANNUAL RUNOFF (CFSM)	1.51		1.37		1.84	
ANNUAL RUNOFF (INCHES)	20.48		18.71		24.94	
10 PERCENT EXCEEDS	74		56		95	
50 PERCENT EXCEEDS	29		27		33	
90 PERCENT EXCEEDS	9.2		14		10	

a From rating curve extended above 2,000 ft^3/s on basis of computation of peak flow over dam.
b Several times when lake was filling.
e Estimated.

01399120 NORTH BRANCH RARITAN RIVER AT BURNT MILLS, NJ

LOCATION.--Lat 40°38'09", long 74°40'56", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Mills Road in Burnt Mills, 0.1 mi upstream from Lamington River, and 4.0 mi southwest of Far Hills.

DRAINAGE AREA.--63.8 mi^2.

PERIOD OF RECORD.--Water years 1964, 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
25...	1330	51	215	7.1	5.0	11.6	91	E2.1	790	49
FEB 1992										
06...	1030	38	--	8.4	1.5	14.0	--	E2.1	310	<10
MAR										
26...	1330	140	310	7.9	4.0	11.0	84	2.6	110	90
JUN										
01...	1315	150	179	7.5	15.0	9.6	96	E1.5	3500	--
JUL										
29...	1330	32	250	8.3	21.5	10.7	122	E1.2	1100	90

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
25...	73	18	6.9	12	2.8	55	20	23	<0.1
FEB 1992									
06...	72	18	6.5	13	1.2	65	16	23	0.1
MAR									
26...	78	20	6.7	26	1.5	44	20	54	<0.1
JUN									
01...	55	14	4.9	11	1.6	38	14	22	<0.1
JUL									
29...	87	22	7.9	13	1.7	62	18	26	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
25...	13	132	0.007	0.007	0.67	0.70	0.04	0.04	0.56
FEB 1992									
06...	8.2	130	0.011	0.009	1.51	1.18	<0.03	0.09	0.24
MAR									
26...	10	169	0.013	0.010	0.86	0.87	0.12	0.07	0.40
JUN									
01...	11	104	0.019	0.017	0.64	0.65	0.16	<0.03	0.61
JUL									
29...	9.4	139	0.013	0.012	0.72	0.82	<0.03	<0.03	0.11

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
25...	0.57	1.2	1.3	0.05	0.05	5.9	0.7	1	0.14
FEB 1992									
06...	0.20	1.7	1.4	0.04	0.04	3.2	0.3	2	0.21
MAR									
26...	0.43	1.3	1.3	0.06	0.04	4.0	1.0	16	6.0
JUN									
01...	0.46	1.2	1.1	0.09	0.03	5.5	0.6	13	5.3
JUL									
29...	<0.03	0.83	--	0.06	0.03	11	0.2	1	0.09

01399120 NORTH BRANCH RARITAN RIVER AT BURNT MILLS, NJ

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
NOV 1991 25...	1330	19	<1	<10	70	<1	<1	17

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
NOV 1991 25...	220	2	30	0.10	<1	<1	20

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ

LOCATION.--Lat 40°43'39", long 74°43'50", Morris County, Hydrologic Unit 02030105, on right bank 1.1 mi upstream from bridge on State Highway 512, 1.2 mi northwest of Pottersville, and 5.5 mi upstream from Cold Brook. Water-quality samples collected at bridge 1.1 mi downstream from gage at high flows.

DRAINAGE AREA.--32.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October and November 1921, published in WSP 1302. Prior to October 1952, published as "Black River near Pottersville".

REVISED RECORDS.--WSP 741: 1932. WSP 781: Drainage area. WSP 1552: 1922, 1924-29(M), 1931(M), 1933-34(M), 1938(P), 1939(M), 1940, 1941(M), 1942-46(P), 1947(M), 1948-49(P), 1951-52(P), 1953(M). WDR-NJ-80-1: Correction 1979(P).

GAGE.--Water-stage recorder. Concrete control since July 1, 1937. Datum of gage is 284.14 ft above sea level (levels from New Jersey Geological Survey bench mark). Prior to July 1, 1922, nonrecording gage on downstream side of highway bridge at Pottersville, 1.1 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated occasionally by pond above station. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0115	400	3.10	Jan. 8	2200	*438	*3.18

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e24	14	24	55	32	41	71	40	108	33	51	19
2	e21	14	23	32	e34	34	63	39	93	30	36	18
3	e18	14	101	30	e31	31	57	37	93	31	39	22
4	e14	14	89	37	e28	30	53	35	74	40	45	23
5	e15	13	64	39	e25	29	49	35	159	33	39	20
6	e16	14	67	37	e27	28	47	35	251	36	33	29
7	e17	15	61	37	e25	49	45	34	177	31	28	75
8	e16	15	51	35	e24	57	44	35	211	29	26	72
9	e16	14	44	34	e25	48	42	48	208	87	45	53
10	e16	14	48	33	e26	54	44	48	138	42	34	40
11	e16	18	39	29	32	104	61	47	106	36	30	40
12	e17	18	36	27	29	70	54	42	84	37	30	32
13	e17	17	38	26	36	65	50	37	70	37	29	28
14	e17	18	38	51	28	58	47	34	60	53	29	27
15	e18	18	36	45	36	48	43	32	53	37	27	27
16	e31	17	34	45	73	42	42	36	48	34	28	26
17	e32	16	37	68	47	37	48	38	44	31	38	25
18	e40	15	28	46	48	36	51	37	42	39	44	24
19	e30	14	39	58	49	38	53	33	63	33	36	22
20	e27	15	26	30	44	37	52	29	60	30	33	19
21	e24	16	23	26	40	39	49	26	50	28	32	18
22	e23	47	21	27	37	38	52	24	50	26	30	18
23	e21	63	22	46	34	37	52	22	48	42	27	20
24	e19	42	23	79	34	36	51	20	51	40	24	17
25	e19	44	22	63	35	38	72	22	47	32	22	17
26	e18	44	25	50	55	69	60	23	43	30	21	23
27	e18	39	23	66	47	172	55	24	42	33	21	26
28	e17	33	21	45	45	116	50	23	41	30	22	24
29	e16	28	36	39	43	117	46	21	38	27	21	22
30	e16	25	41	44	---	100	42	20	36	25	20	22
31	e15	---	40	31	---	86	---	114	---	47	19	---
TOTAL	624	688	1220	1310	1069	1784	1545	1090	2588	1119	959	848
MEAN	20.1	22.9	39.4	42.3	36.9	57.5	51.5	35.2	86.3	36.1	30.9	28.3
MAX	40	63	101	79	73	172	72	114	251	87	51	75
MIN	14	13	21	26	24	28	42	20	36	25	19	17
CFSM	.61	.70	1.20	1.29	1.12	1.75	1.57	1.07	2.63	1.10	.94	.86
IN.	.71	.78	1.38	1.49	1.21	2.02	1.75	1.24	2.94	1.27	1.09	.96

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	34.0	49.8	58.5	64.0	70.6	88.9	87.3	66.8	46.5	37.4	33.9	33.4
MAX	116	163	171	225	144	230	239	169	191	165	126	123
(WY)	1956	1928	1974	1979	1973	1936	1984	1989	1972	1984	1928	1971
MIN	5.69	11.2	15.4	11.7	28.0	32.0	25.9	19.0	10.1	5.48	5.61	3.76
(WY)	1931	1965	1981	1981	1934	1981	1985	1965	1965	1965	1966	1964

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	17115.4		14937			
ANNUAL MEAN	46.9		40.8		55.8	
HIGHEST ANNUAL MEAN					104	1928
LOWEST ANNUAL MEAN					20.5	1965
HIGHEST DAILY MEAN	187	Jan 17	251	Jun 6	905	Jan 25 1979
LOWEST DAILY MEAN	6.7	Sep 18	13	Nov 5	1.5	Oct 4 1930
ANNUAL SEVEN-DAY MINIMUM	7.4	Sep 12	14	Oct 31	2.4	Sep 22 1964
INSTANTANEOUS PEAK FLOW			438	Jun 8	3460a	Jul 7 1984
INSTANTANEOUS PEAK STAGE			3.18	Jun 8	5.94b	Jul 7 1984
INSTANTANEOUS LOW FLOW			13	Nov 5	1.3	Oct 4 1930
ANNUAL RUNOFF (CFSM)	1.43		1.24		1.70	
ANNUAL RUNOFF (INCHES)	19.41		16.94		23.13	
10 PERCENT EXCEEDS	94		63		112	
50 PERCENT EXCEEDS	37		36		43	
90 PERCENT EXCEEDS	13		18		14	

a From rating curve extended above 380 ft^3/s on basis of slope-area measurement at gage height 4.71 ft.
b From floodmark.
e Estimated.

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
30...	1230	E16	264	7.3	8.0	9.6	81	E1.6	20	6
FEB 1992										
04...	1300	28	--	8.7	1.0	12.8	--	E2.3	490	<10
MAR										
17...	1330	36	--	8.4	1.5	12.9	--	6.8	20	<10
MAY										
28...	1100	23	263	8.1	12.5	10.4	99	<1.0	70	20
JUL										
28...	1300	29	222	8.1	19.5	9.0	100	<1.0	70	260

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
30...	89	21	8.8	24	2.8	61	18	42	<0.1
FEB 1992									
04...	72	17	7.1	19	2.1	42	13	36	0.1
MAR									
17...	71	17	7.0	18	2.1	44	18	35	0.1
MAY									
28...	75	18	7.3	18	2.0	51	17	35	0.1
JUL									
28...	70	17	6.7	16	1.2	50	10	32	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
30...	13	169	<0.003	<0.003	0.63	0.66	<0.03	<0.03	0.43
FEB 1992									
04...	10	137	0.005	0.005	1.88	1.67	0.04	<0.03	0.28
MAR									
17...	11	141	0.007	0.006	1.46	1.49	0.07	0.06	0.32
MAY									
28...	13	149	0.021	0.020	1.83	1.83	<0.03	<0.03	0.32
JUL									
28...	15	131	0.007	0.007	0.63	0.63	<0.03	<0.03	0.21

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
30...	0.46	1.1	1.1	0.03	0.03	4.9	0.3	<1	--
FEB 1992									
04...	0.31	2.2	2.0	0.04	0.03	3.6	0.6	<1	--
MAR									
17...	0.30	1.8	1.8	0.09	0.04	3.2	0.2	4	0.39
MAY									
28...	0.22	2.2	2.0	0.09	0.04	2.7	0.3	7	0.43
JUL									
28...	0.18	0.84	0.81	0.07	0.07	14	0.4	4	0.31

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 30...	1230	19	1	<10	90	<1	2	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 30...	280	3	<10	<0.10	2	<1	40

01399510 UPPER COLD BROOK NEAR POTTERSVILLE, NJ

LOCATION.--Lat 40°43'16", long 74°45'09", Hunterdon County, Hydrologic Unit 02030105, on right bank along a private dirt road, 400 ft downstream from the former Pottersville Reservoir, and 1.5 mi west of Pottersville.

DRAINAGE AREA.--2.18 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR-NJ-84-1: 1975(P), 1980-83(P). WDR NJ-88-1: 1979.

GAGE.--Water-stage recorder and rock outcrop control. Datum of gage is 451.57 ft above sea level.

REMARKS.--Records good except for estimated daily discharges and those above 20 ft^3/s, which are fair. Flow regulated by Pottersville Reservoir, 400 ft above station, until August 1982 when dam was demolished. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	1715	*115	*1.52	July 31	1700	102	1.47

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.5	2.0	2.2	2.5	2.9	4.6	3.5	5.9	2.2	3.3	1.4
2	1.2	1.5	2.1	2.3	e2.4	2.9	4.4	3.6	3.9	2.0	2.2	1.4
3	1.2	1.4	15	2.2	2.4	2.9	4.4	3.4	3.1	2.7	2.8	4.3
4	1.2	1.4	6.0	3.0	e2.3	2.7	4.4	3.2	2.8	3.4	2.7	2.2
5	1.3	1.4	3.1	2.7	e2.3	2.7	4.3	3.4	35	2.3	2.1	1.7
6	1.5	1.5	2.7	2.3	e2.3	2.7	4.1	3.2	28	2.9	1.9	1.6
7	1.3	1.5	2.4	2.3	e2.2	6.5	4.1	3.2	8.1	2.1	1.8	2.0
8	1.2	1.5	2.3	2.3	e2.2	4.6	4.0	4.1	9.1	2.0	1.8	1.8
9	1.2	1.5	2.4	2.8	e2.1	3.4	3.9	4.5	7.1	8.1	3.9	1.6
10	1.3	1.5	4.3	2.6	1.9	4.4	4.0	4.4	5.1	2.4	2.2	1.8
11	1.4	2.2	2.6	2.4	2.1	11	6.4	3.8	4.5	2.1	2.2	2.4
12	1.4	1.7	2.3	2.3	2.3	4.7	4.3	3.3	4.4	2.2	1.9	1.5
13	1.3	1.5	2.9	2.3	2.3	4.1	4.0	3.2	4.1	2.6	1.8	1.4
14	1.2	1.5	2.9	6.8	2.3	3.7	3.8	3.1	3.8	7.1	2.1	1.4
15	2.6	1.5	2.9	3.6	4.9	3.5	3.8	2.9	3.5	2.9	1.9	1.4
16	2.0	1.5	2.7	2.8	6.3	3.3	4.2	3.6	3.3	2.7	2.0	1.4
17	3.6	1.5	2.5	2.8	3.2	3.3	4.5	3.1	3.3	2.3	3.2	1.4
18	2.1	1.4	2.5	2.5	2.9	3.2	4.3	3.0	3.2	3.3	3.1	1.3
19	1.6	1.5	2.2	2.6	3.2	3.9	4.3	2.8	6.0	2.3	2.1	1.3
20	1.5	1.5	2.2	2.7	2.9	3.5	4.1	2.6	4.3	2.0	1.8	1.2
21	1.5	1.7	2.6	2.7	2.8	3.4	4.1	2.6	3.1	1.9	1.7	1.3
22	1.5	7.9	2.7	2.7	2.7	3.3	4.4	2.5	2.9	1.8	1.6	1.6
23	1.5	4.6	2.6	7.2	2.7	3.2	4.1	2.4	2.7	4.1	1.6	1.7
24	1.5	2.4	2.5	5.6	2.8	3.1	4.2	2.4	3.8	2.6	1.5	1.3
25	1.5	2.1	2.3	3.7	3.0	3.8	4.6	2.5	3.0	2.2	1.5	1.3
26	1.5	1.9	2.2	2.8	5.8	13	4.0	2.6	2.6	2.2	2.0	2.4
27	1.5	1.8	2.3	2.8	3.5	18	3.9	2.6	2.6	2.8	1.7	2.6
28	1.5	1.7	2.3	2.6	3.0	6.1	3.9	2.4	2.4	2.1	1.7	1.9
29	1.3	1.7	4.5	2.5	2.9	5.2	3.8	2.3	2.2	1.9	1.8	1.5
30	1.4	1.7	3.2	2.5	---	4.9	3.7	2.4	2.4	1.8	1.5	1.4
31	1.5	---	2.3	2.5	---	5.1	---	19	---	8.7	1.4	---
TOTAL	47.5	58.0	97.5	93.1	84.2	149.0	126.6	111.6	176.2	91.7	64.8	51.5
MEAN	1.53	1.93	3.15	3.00	2.90	4.81	4.22	3.60	5.87	2.96	2.09	1.72
MAX	3.6	7.9	15	7.2	6.3	18	6.4	19	35	8.7	3.9	4.3
MIN	1.2	1.4	2.0	2.2	1.9	2.7	3.7	2.3	2.2	1.8	1.4	1.2
CFSM	.70	.89	1.44	1.38	1.33	2.20	1.94	1.65	2.69	1.36	.96	.79
IN.	.81	.99	1.66	1.59	1.44	2.54	2.16	1.90	3.01	1.56	1.11	.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1992, BY WATER YEAR (WY)

MEAN	2.05	3.10	4.48	4.72	4.85	5.58	6.32	5.30	3.47	2.71	1.69	1.81
MAX	5.55	8.37	10.6	12.4	8.46	9.30	15.0	10.8	6.45	12.1	3.70	4.58
(WY)	1990	1973	1984	1979	1984	1978	1983	1989	1975	1984	1990	1975
MIN	.62	.93	.43	.083	2.03	2.09	1.72	2.30	1.49	.90	.38	.16
(WY)	1981	1981	1981	1981	1980	1985	1985	1985	1985	1980	1980	1980

01399510 UPPER COLD BROOK NEAR POTTERSVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1973 - 1992	
ANNUAL TOTAL	1326.95		1151.7			
ANNUAL MEAN	3.64		3.15		3.84	
HIGHEST ANNUAL MEAN					7.07	1984
LOWEST ANNUAL MEAN					1.74	1985
HIGHEST DAILY MEAN	22	Mar 4	35	Jun 5	125	Jul 7 1984
LOWEST DAILY MEAN	.83	Sep 18	1.2	Oct 1	.03	Aug 28 1980
ANNUAL SEVEN-DAY MINIMUM	.89	Sep 12	1.3	Oct 1	.06	Aug 28 1980
INSTANTANEOUS PEAK FLOW			115	Jun 5	2000a	Jul 7 1984
INSTANTANEOUS PEAK STAGE			1.52	Jun 5	3.91	Jul 7 1984
INSTANTANEOUS LOW FLOW			1.1	Sep 20	---	
ANNUAL RUNOFF (CFSM)	1.67		1.44		1.76	
ANNUAL RUNOFF (INCHES)	22.64		19.65		23.90	
10 PERCENT EXCEEDS	6.3		4.5		7.2	
50 PERCENT EXCEEDS	2.6		2.6		2.6	
90 PERCENT EXCEEDS	1.1		1.5		.90	

a From rating curve extended above 20 ft^3/s on basis of slope-area measurement of peak flow.
e Estimated.

01399670 SOUTH BRANCH ROCKAWAY CREEK AT WHITEHOUSE STATION, NJ

LOCATION.--Lat 40°37'10", long 74°46'30", Hunterdon County, Hydrologic Unit 02030105, on right bank 1,700 ft upstream from bridge on U.S. Route 22, 0.4 mi northeast of Whitehouse Station, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--12.3 mi^2.

PERIOD OF RECORD.--October 1986 to current year. March 1977 to September 1986, water-stage recorder 1,700 ft downstream, at datum 8.07 ft lower (sta. 01399690), drainage area 13.2 mi^2.

REVISED RECORDS.--WDR NJ-88-1: 1987. WDR NJ-90-1: 1988.

GAGE.--Water-stage recorder. Datum of gage is 121.5 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except those below 5.0 ft^3/s, which are fair. Releases from Round Valley Reservoir enter stream directly above station (see Raritan River basin, reservoirs in). Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	4.5	6.1	7.8	6.4	8.3	16	7.2	30	6.9	10	3.1
2	6.0	4.6	7.0	8.2	5.2	8.4	15	7.3	16	6.0	4.2	3.2
3	5.7	4.9	66	8.5	5.2	7.8	13	6.6	11	7.7	4.0	12
4	5.7	4.7	44	15	5.2	7.2	12	6.1	9.1	17	5.2	21
5	5.8	4.4	20	13	5.0	7.0	11	7.2	91	7.7	4.5	5.5
6	6.5	4.8	15	9.7	4.5	6.5	9.9	6.4	252	13	3.5	5.1
7	5.6	5.2	12	8.7	4.8	26	10	5.9	41	7.2	3.4	7.9
8	5.0	5.5	10	7.6	5.2	25	10	9.8	31	6.5	3.2	6.7
9	5.2	4.6	10	11	4.4	13	9.4	12	24	42	12	5.1
10	5.2	4.8	24	11	3.7	15	10	13	17	8.7	5.0	5.2
11	5.9	11	13	7.4	4.2	71	14	10	14	6.7	8.8	15
12	7.5	6.0	10	6.4	3.6	22	11	7.6	12	6.2	8.2	5.1
13	6.2	5.1	15	6.5	3.8	16	8.8	7.3	10	6.2	3.4	4.2
14	5.6	5.0	19	35	4.8	13	8.5	6.8	9.2	8.9	8.1	4.0
15	11	4.2	14	17	10	11	8.2	6.1	8.5	12	4.2	4.0
16	14	4.2	11	9.8	36	9.6	9.2	12	7.5	16	4.5	3.8
17	24	5.0	8.9	7.8	13	9.4	12	8.8	7.2	6.8	7.7	3.7
18	14	3.9	8.7	7.4	11	9.0	13	7.5	6.4	11	16	3.4
19	7.1	3.7	6.5	5.1	14	13	11	6.6	12	6.4	8.5	3.7
20	5.4	3.9	6.5	5.6	12	11	11	6.0	9.5	5.7	6.2	3.1
21	4.9	5.0	7.4	5.7	9.6	12	10	5.7	6.1	5.1	5.0	3.0
22	5.2	48	7.2	5.5	8.4	11	12	5.5	5.8	4.9	4.6	4.2
23	4.9	45	7.2	16	8.5	12	10	5.3	5.8	10	4.3	10
24	4.6	14	6.9	36	8.6	11	9.1	5.4	11	8.2	4.1	3.1
25	4.5	8.6	5.9	11	9.0	18	9.2	5.8	7.3	5.5	4.2	3.4
26	4.6	6.9	5.2	8.9	39	44	8.7	6.2	6.3	5.3	8.2	16
27	4.5	6.0	5.1	7.1	18	112	8.4	7.1	7.7	12	8.1	14
28	5.9	5.7	4.8	7.2	13	32	8.3	6.2	6.8	6.1	4.5	12
29	4.4	5.4	24	6.9	11	22	7.9	5.7	5.9	5.4	7.3	5.6
30	4.4	5.0	18	6.7	---	18	7.5	6.1	11	5.0	3.8	4.1
31	4.7	---	9.9	7.0	---	20	---	53	---	13	3.5	---
TOTAL	210.1	249.6	428.3	326.5	287.1	621.2	314.1	272.2	692.1	289.1	188.2	200.2
MEAN	6.78	8.32	13.8	10.5	9.90	20.0	10.5	8.78	23.1	9.33	6.07	6.67
MAX	24	48	66	36	39	112	16	53	252	42	16	21
MIN	4.4	3.7	4.8	5.1	3.6	6.5	7.5	5.3	5.8	4.9	3.2	3.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

MEAN	31.0	28.1	34.2	34.7	27.6	30.7	33.1	27.3	21.0	23.5	30.5	30.3
MAX	116	64.0	91.6	93.3	51.1	55.0	85.0	60.5	38.7	80.5	128	146
(WY)	1981	1981	1981	1981	1979	1978	1983	1989	1989	1984	1980	1980
MIN	6.78	6.58	12.7	8.31	9.90	10.2	3.80	8.78	9.57	7.33	5.49	4.19
(WY)	1992	1982	1989	1985	1992	1985	1985	1992	1981	1983	1983	1983

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1977 - 1992	
ANNUAL TOTAL	6466.2		4078.7			
ANNUAL MEAN	17.7		11.1		29.7	
HIGHEST ANNUAL MEAN					55.2	1981
LOWEST ANNUAL MEAN					11.1	1992
HIGHEST DAILY MEAN	190	Jan 17	252	Jun 6	600	Jan 26 1978
LOWEST DAILY MEAN	3.1	Sep 1	3.0	Sep 21	1.4	Oct 20 1983
ANNUAL SEVEN-DAY MINIMUM	3.7	Aug 29	3.5	Sep 15	1.8	Apr 25 1985
INSTANTANEOUS PEAK FLOW			846	Jun 6	2190	Jul 7 1984
INSTANTANEOUS PEAK STAGE			6.52	Jun 6	15.89a	Jul 7 1984
INSTANTANEOUS LOW FLOW			2.3	Feb 10	.18	Oct 3 1984
10 PERCENT EXCEEDS	33		17		68	
50 PERCENT EXCEEDS	13		7.4		15	
90 PERCENT EXCEEDS	4.4		4.4		5.3	

a Site and datum then in use.

01399700 ROCKAWAY CREEK AT WHITEHOUSE, NJ

LOCATION.--Lat 40°37'49", long 74°44'11", Hunterdon County, Hydrologic Unit 02030105, on right bank at bridge on Lamington Road, 1.4 mi northeast of Whitehouse, and 1.8 mi upstream from mouth.

DRAINAGE AREA.--37.1 mi^2.

PERIOD OF RECORD.--Water years 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1977 to September 1978.
WATER TEMPERATURES: April 1977 to September 1978.
SEDIMENT ANALYSES: October 1976 to September 1978.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
19...	1000	18	277	--	5.0	13.0	102	<1.0	<20	2
FEB 1992										
03...	1230	52	--	8.2	7.0	13.3	--	E1.5	<20	<10
MAR										
16...	1300	36	--	7.7	3.5	13.0	--	0.4	50	<10
MAY										
27...	1100	16	242	8.0	13.0	9.8	94	<1.0	700	60
JUL										
30...	1030	17	230	8.0	21.5	8.1	92	E1.8	9200	310

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
19...	100	26	9.5	13	2.5	82	26	21	0.1
FEB 1992									
03...	71	18	6.3	10	1.3	65	19	12	0.1
MAR									
16...	72	18	6.5	10	1.5	11	34	17	0.2
MAY									
27...	85	21	7.9	10	1.5	65	20	18	0.1
JUL									
30...	85	21	8.0	11	1.8	67	20	16	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
19...	11	168	0.005	0.005	1.88	2.12	0.07	0.12	0.32
FEB 1992									
03...	9.5	121	0.005	0.007	1.63	1.21	0.06	0.08	0.33
MAR									
16...	13	112	0.011	0.007	1.32	1.15	0.12	0.22	0.33
MAY									
27...	13	136	0.036	0.035	1.15	1.17	<0.03	<0.03	0.33
JUL									
30...	14	138	0.025	0.024	1.46	1.45	0.03	<0.03	0.25

01399700 ROCKAWAY CREEK AT WHITEHOUSE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991 19...	0.26	2.2	2.4	0.31	0.30	2.3	0.3	1	0.05
FEB 1992 03...	0.31	2.0	1.5	0.15	0.11	2.3	0.4	8	1.1
MAR 16...	0.38	1.6	1.5	0.09	0.08	2.4	0.2	7	0.68
MAY 27...	0.27	1.5	1.4	0.13	0.10	2.1	0.2	7	0.30
JUL 30...	0.18	1.7	1.6	0.11	0.09	16	0.2	2	0.09

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
NOV 1991 19...	1000	10	<1	<10	70	<1	<1	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
NOV 1991 19...	100	5	20	<0.10	3	<1	30

01399780 LAMINGTON RIVER AT BURNT MILLS, NJ

LOCATION.--Lat 40°38'04", long 74°41'13", 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 mi^2.

PERIOD OF RECORD.--Water years 1964, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
31...	1400	34	246	7.7	8.0	9.6	82	E2.0	130	8
FEB 1992										
06...	1345	43	--	8.3	2.0	11.8	--	E2.3	<20	<10
MAR										
19...	1300	140	--	7.6	0.5	11.7	--	2.2	80	<10
MAY										
28...	1300	48	246	8.9	16.0	12.5	127	<1.0	110	<10
JUL										
28...	1045	70	230	8.1	20.0	9.0	100	<1.0	700	310

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
31...	110	26	10	17	2.5	81	22	26	<0.1
FEB 1992									
06...	85	21	7.8	15	1.5	64	20	25	0.1
MAR									
19...	65	16	6.0	13	1.4	49	18	21	<0.1
MAY									
28...	83	20	8.0	14	1.7	63	20	25	0.1
JUL									
28...	81	20	7.5	14	1.5	62	16	24	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
31...	9.7	164	0.008	0.010	0.49	0.49	<0.03	<0.03	0.31
FEB 1992									
06...	10	145	0.007	0.008	1.68	1.43	0.03	0.03	0.25
MAR									
19...	9.5	119	0.009	0.009	1.15	1.07	0.08	0.10	0.22
MAY									
28...	10	142	0.026	0.024	1.19	1.20	<0.03	<0.03	0.29
JUL									
28...	13	137	0.015	0.014	0.87	0.87	<0.03	<0.03	0.15

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
31...	0.31	0.80	0.80	0.12	0.10	4.1	--	3	0.28
FEB 1992									
06...	0.20	1.9	1.6	0.06	0.06	2.6	0.3	4	0.46
MAR									
19...	0.30	1.4	1.4	0.06	0.04	3.0	0.4	7	2.6
MAY									
28...	0.19	1.5	1.4	0.08	0.06	2.4	0.2	4	0.52
JUL									
28...	--	1.0	--	0.21	0.31	16	0.2	4	0.76

01399780 LAMINGTON RIVER AT BURNT MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
OCT 1991											
31...	1400	--	<1	E1	4.9	110	460	<0.1	0.7	--	5
31...	1400	21	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991										
31...	--	--	--	<1	--	5	<5	--	10	--
31...	<10	100	<1	--	<1	--	--	6	--	160

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991										
31...	6300	--	<10	--	430	--	<0.01	--	<10	--
31...	--	3	--	20	--	<0.10	--	3	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
31...	<1	--	30	<1	<1.0	<0.1	<1.0	<0.1	<0.1	<0.1
31...	--	30	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	ORGANIC HALOGEN TOT REC FROM BOTTOM MATTERIAL (UG/G) AS CL
OCT 1991											
31...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10	1.58
31...	--	--	--	--	--	--	--	--	--	--	--

01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, NJ

LOCATION.--Lat 40°34'10", long 74°40'45", Somerset County, Hydrologic Unit 02030105, on right bank, 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 mi^2.

PERIOD OF RECORD.--June 1923 to current year. Monthly discharge only for June 1923, published in WSP 1302. Prior to October 1943, published as "at Milltown".

REVISED RECORDS.--WSP 1552: 1924-26, 1928-35. WDR NJ-79-1: 1971-78(P).

GAGE.--Water-stage recorder. Concrete control since Sept. 1, 1936. Datum of gage is 50.43 ft above sea level. Prior to Oct. 17, 1936, nonrecording gage at site 30 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Releases from Round Valley Reservoir enter basin upstream of gage. Several measurements of water temperature were made during the year. New Jersey Water Supply Authority gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0745	*6,680	*8.77	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	58	94	132	157	191	346	172	678	139	444	62
2	83	57	102	138	123	190	315	169	293	119	151	61
3	73	57	1560	132	143	177	276	161	238	118	120	70
4	65	55	1190	293	139	168	255	150	197	238	140	239
5	63	54	368	297	142	161	239	153	869	148	124	98
6	78	53	266	192	111	157	220	152	3760	166	105	83
7	69	55	229	171	133	350	212	142	893	127	94	118
8	58	57	194	146	126	557	209	156	1010	108	87	145
9	54	60	178	154	117	289	192	259	1190	697	194	120
10	52	71	440	187	82	265	208	217	582	200	169	104
11	56	73	237	150	120	1030	298	209	425	140	121	160
12	68	88	187	132	100	444	248	169	349	121	141	105
13	58	70	241	127	93	326	208	156	290	136	103	83
14	52	64	298	448	123	286	191	148	255	344	130	75
15	78	61	228	371	131	252	182	132	231	184	109	73
16	155	60	173	211	708	220	182	187	208	228	111	69
17	273	58	144	156	298	210	245	167	191	141	131	67
18	284	56	142	182	236	205	253	147	176	172	200	66
19	128	57	108	133	265	244	241	143	241	139	145	64
20	96	56	117	152	254	238	227	120	307	117	114	59
21	87	58	123	163	215	236	216	112	199	107	102	55
22	84	361	116	141	191	230	229	105	178	100	93	60
23	80	739	111	204	185	238	278	97	173	154	87	107
24	76	222	110	722	186	229	219	92	215	219	82	69
25	70	155	99	281	191	295	305	101	210	131	75	59
26	67	132	95	224	617	557	240	100	163	111	72	114
27	65	118	98	194	348	1960	223	108	157	176	96	137
28	64	105	87	192	261	699	204	101	155	128	112	158
29	60	97	253	180	235	512	192	91	138	103	93	96
30	57	90	298	192	---	424	177	87	161	95	74	76
31	59	---	172	164	---	433	---	579	---	190	67	---
TOTAL	2707	3297	8058	6561	6030	11773	7030	4882	14132	5296	3886	2852
MEAN	87.3	110	260	212	208	380	234	157	471	171	125	95.1
MAX	284	739	1560	722	708	1960	346	579	3760	697	444	239
MIN	52	53	87	127	82	157	177	87	138	95	67	55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1992, BY WATER YEAR (WY)

MEAN	171	283	345	377	432	508	470	343	227	185	192	172
MAX	826	824	994	1416	948	1272	1368	1027	1270	1291	1068	672
(WY)	1956	1973	1984	1979	1925	1936	1983	1989	1972	1984	1942	1975
MIN	26.6	46.1	73.1	79.4	109	163	117	84.1	46.4	25.5	22.3	14.8
(WY)	1931	1965	1966	1940	1934	1981	1985	1926	1965	1966	1932	1964

01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1924 - 1992	
ANNUAL TOTAL	100715		76504			
ANNUAL MEAN	276		209		308	
HIGHEST ANNUAL MEAN					605	1984
LOWEST ANNUAL MEAN					120	1965
HIGHEST DAILY MEAN	2620	Jan 17	3760	Jun 6	15300	Jul 7 1984
LOWEST DAILY MEAN	38	Sep 4	52	Oct 10	7.5	Sep 26 1964
ANNUAL SEVEN-DAY MINIMUM	40	Sep 12	55	Nov 2	8.9	Sep 22 1964
INSTANTANEOUS PEAK FLOW			6680	Jun 6	28600a	Aug 28 1971
INSTANTANEOUS PEAK STAGE			8.77	Jun 6	15.47b	Aug 28 1971
INSTANTANEOUS LOW FLOW			27	Feb 13	3.0c	Nov 28 1930
10 PERCENT EXCEEDS	582		331		617	
50 PERCENT EXCEEDS	175		152		184	
90 PERCENT EXCEEDS	57		65		55	

a From rating curve extended above 15,000 ft^3/s.
b From high-water mark in gage house.
c Result of freezeup.

01400300 PETERS BROOK NEAR RARITAN, NJ

LOCATION.--Lat 40°35'37", long 74°37'51", Somerset County, Hydrologic Unit 02030105, on left bank 12 ft upstream from bridge on Garretson Road, 1.5 mi north of Raritan, and 2.5 mi from mouth.

DRAINAGE AREA.--4.19 mi^2.

PERIOD OF RECORDS.--May 1978 to current year.

REVISED RECORD.--WDR NJ-79-1: 1978(P).

GAGE.--Water-stage recorder. Datum of gage is 68.71 ft above sea level (levels by Somerset County).

REMARKS.--No estimated daily discharges. Records fair. Several measurements of water temperature were made during the year. Gage-height and rain-gage radio telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 3	2200	*187	*4.30	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.45	.56	1.2	.97	2.5	3.8	2.2	3.2	.61	1.6	.53
2	1.0	.44	3.0	1.2	.91	2.4	3.5	2.2	1.1	.60	.76	.52
3	1.2	.42	100	1.2	.84	2.3	3.2	2.1	.75	2.4	.64	1.1
4	.96	.40	17	18	.82	2.2	3.0	2.0	.66	2.0	.59	.78
5	1.0	.39	3.7	4.1	.82	2.1	2.8	2.4	40	.76	.56	.59
6	1.9	.47	2.7	2.2	.72	2.0	2.6	2.0	35	2.1	.55	.55
7	1.3	.36	2.1	1.5	.73	14	2.6	1.9	2.9	.77	.53	.61
8	.93	.36	1.8	1.2	.84	7.0	2.4	4.1	6.6	.65	.55	.60
9	.87	.35	2.3	2.9	.75	3.6	2.5	3.7	3.0	13	3.1	.55
10	.79	.36	18	2.3	.65	16	2.6	3.0	1.3	1.3	.84	2.1
11	2.7	1.2	2.8	1.5	.68	32	6.4	1.5	1.0	.90	2.1	3.3
12	1.9	.52	2.0	1.2	.64	5.0	3.0	1.0	.96	.86	1.0	.68
13	1.1	.40	7.7	1.2	.62	3.5	2.5	.76	.87	.74	.69	.58
14	1.1	.35	6.7	18	.96	2.9	2.4	.68	.80	1.3	1.5	.54
15	6.8	.34	2.8	3.2	12	2.6	2.3	.67	.81	3.3	.81	.52
16	2.0	.31	1.7	1.8	19	2.4	4.0	5.7	.82	1.6	1.1	.52
17	14	.28	1.5	1.4	4.7	2.2	4.4	1.2	.80	.84	1.0	.52
18	2.5	.29	1.2	1.2	3.9	2.2	4.0	.90	.72	1.1	1.9	.51
19	1.1	.29	1.0	.97	5.9	4.8	3.8	.77	.89	.72	.83	.48
20	.87	.31	.93	.97	4.3	5.9	2.9	.69	1.0	.66	.68	.47
21	.72	.51	1.0	.95	3.3	6.2	2.7	.65	.79	.67	.61	.48
22	.62	30	.93	.88	2.9	4.8	4.8	.64	.71	.61	.57	.90
23	.51	7.3	.94	22	2.8	6.4	7.3	.61	.87	4.7	.54	1.2
24	.48	1.2	.91	15	2.8	5.1	3.2	.76	1.4	1.2	.55	.52
25	.45	.73	.79	2.5	3.2	9.4	2.7	.90	.94	.77	.53	.58
26	.44	.56	.71	1.7	20	28	2.5	.68	.73	.74	.53	3.1
27	.43	.50	.71	1.3	5.2	41	2.5	.71	.78	3.6	2.5	3.5
28	.41	.44	.69	1.2	3.6	7.2	2.3	.62	.73	.84	.71	1.0
29	.38	.42	9.7	1.1	3.0	4.6	2.3	.54	.70	.70	.64	.63
30	.37	.39	4.5	1.2	---	3.8	2.2	.70	.62	.68	.55	.55
31	.42	---	1.9	1.1	---	5.9	---	21	---	4.4	.54	---
TOTAL	50.35	50.34	202.27	116.17	107.55	240.0	97.2	67.28	111.45	55.12	29.60	28.51
MEAN	1.62	1.68	6.52	3.75	3.71	7.74	3.24	2.17	3.71	1.78	.95	.95
MAX	14	30	100	22	20	41	7.3	21	40	13	3.1	3.5
MIN	.37	.28	.56	.88	.62	2.0	2.2	.54	.62	.60	.53	.47
CFSM	.39	.40	1.56	.89	.89	1.85	.77	.52	.89	.42	.23	.23
IN.	.45	.45	1.80	1.03	.95	2.13	.86	.60	.99	.49	.26	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1992, BY WATER YEAR (WY)

MEAN	3.78	6.20	7.36	9.25	8.63	7.84	9.26	8.33	3.90	4.10	3.82	3.47
MAX	14.2	15.8	23.7	41.2	17.7	18.9	25.3	26.0	11.2	11.8	15.5	9.88
(WY)	1990	1987	1984	1979	1982	1980	1983	1989	1989	1984	1990	1989
MIN	.59	.56	.49	.24	1.39	1.37	.57	1.21	.82	.28	.038	.24
(WY)	1987	1979	1981	1981	1980	1985	1985	1986	1988	1983	1980	1984

01400300 PETERS BROOK NEAR RARITAN, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1978 - 1992	
ANNUAL TOTAL	1615.49		1155.84			
ANNUAL MEAN	4.43		3.16		6.31	
HIGHEST ANNUAL MEAN					9.37	1984
LOWEST ANNUAL MEAN					3.16	1992
HIGHEST DAILY MEAN	103	Apr 21	100	Dec 3	400	Jan 24 1979
LOWEST DAILY MEAN	.28	Nov 17	.28	Nov 17	.00	Jul 12 1978
ANNUAL SEVEN-DAY MINIMUM	.31	Nov 14	.31	Nov 14	.00	Nov 1 1978
INSTANTANEOUS PEAK FLOW			187	Dec 3	1090	Jul 7 1984
INSTANTANEOUS PEAK STAGE			4.30	Dec 3	8.15	Jul 7 1984
INSTANTANEOUS LOW FLOW			.25	Nov 16	.00	Many days
ANNUAL RUNOFF (CFSM)	1.06		.75		1.51	
ANNUAL RUNOFF (INCHES)	14.34		10.26		20.45	
10 PERCENT EXCEEDS	7.4		5.9		11	
50 PERCENT EXCEEDS	1.4		1.1		1.4	
90 PERCENT EXCEEDS	.41		.52		.22	

01400350 MACS BROOK AT SOMERVILLE, NJ

LOCATION.--Lat 40°34'26", long 74°37'06", Somerset County, Hydrologic Unit 02030105, on left upstream wingwall of culvert under access road from U.S. Highway 22 west to U.S. Highways 202 and 206, 1,200 ft upstream from Peters Brook, and 0.4 mi north of Somerville.

DRAINAGE AREA.--0.77 mi^2.

PERIOD OF RECORD.--June 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 58.37 ft above sea level.

REMARKS.--Records poor. Several measurements of water temperature were made during the year. Some regulation from detention pond directly upstream.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	2015	*83	*2.84	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.13	.26	.31	.24	.38	.70	.26	1.7	.16	1.1	e.20
2	.18	.13	1.5	.28	.20	.38	.62	.33	.54	.15	.32	e.19
3	.16	.13	19	.28	.20	.33	.53	.23	.35	1.3	.25	e.76
4	.16	.13	4.7	3.3	.18	.32	.49	.20	.30	1.1	.25	e.49
5	.18	.13	.82	1.0	.17	.30	.46	.38	15	.30	.23	e.25
6	.18	.13	.45	.55	.16	.33	.41	.23	7.2	1.6	.20	e.24
7	.16	.13	.32	.37	.16	2.5	.42	.20	.98	.29	.17	e.25
8	.14	.13	.26	.34	.22	1.2	.41	1.0	1.1	.23	.16	e.24
9	.13	.09	.58	.81	.17	.71	.41	.55	.47	7.4	1.4	e.23
10	.13	.15	3.4	.50	.16	4.7	.40	1.0	.34	.55	.29	e1.4
11	.48	.54	.70	.36	.16	6.6	1.3	.41	.29	.27	1.3	e2.2
12	.22	.26	.45	.31	.16	1.1	.52	.33	.25	.25	.50	e.32
13	.17	.17	1.6	.29	.16	.65	.41	.31	.24	.22	.26	e.24
14	.16	.15	1.5	4.4	.29	.50	.39	.26	.23	.77	e1.1	e.24
15	1.4	.13	.75	.90	2.6	.42	.39	.23	.20	1.5	e.29	e.20
16	.37	.13	.44	.47	3.5	.37	1.1	2.3	.19	.75	e.75	e.17
17	2.9	.12	.34	.36	.97	.33	.94	.46	.17	.27	e.52	.16
18	.44	.11	.30	.29	.82	.33	.83	.33	.16	.52	e1.2	.13
19	.16	.11	.25	.25	1.2	1.2	.87	.29	.60	.25	e.36	.13
20	.14	.11	.25	.25	.75	1.4	.60	.25	.29	.23	e.25	.11
21	.13	.24	.24	.23	.50	1.5	.64	.24	.23	.20	e.25	.11
22	.11	7.9	.20	.19	.41	1.1	1.6	.22	.20	.20	e.23	.54
23	.11	2.9	.20	4.5	.48	1.7	2.2	.20	.16	3.4	e.21	.45
24	.11	.53	.18	4.0	.39	1.2	.70	.25	.72	.76	e.20	.20
25	.09	.30	.16	.74	.53	1.7	.53	.25	.28	.29	e.19	.33
26	.09	.25	.13	.45	3.6	6.0	.46	.26	.24	.33	e.17	1.9
27	.09	.20	.13	.37	.95	8.1	.40	.22	.26	2.1	e1.3	1.4
28	.10	.20	.13	.31	.64	1.4	.38	.19	.20	.35	e.25	.46
29	.11	.17	2.0	.29	.49	.84	.31	.16	.19	.25	e.24	.31
30	.11	.16	1.0	.26	---	.70	.31	.29	.17	.25	e.21	.30
31	.11	---	.40	.25	---	1.3	---	8.3	---	2.9	e.27	---
TOTAL	9.22	15.96	42.64	27.21	20.46	49.59	19.73	20.13	33.25	29.14	14.42	14.15
MEAN	.30	.53	1.38	.88	.71	1.60	.66	.65	1.11	.94	.47	.47
MAX	2.9	7.9	19	4.5	3.6	8.1	2.2	8.3	15	7.4	1.4	2.2
MIN	.09	.09	.13	.19	.16	.30	.31	.16	.16	.15	.16	.11
CFSM	.39	.69	1.79	1.14	.92	2.08	.85	.84	1.44	1.22	.60	.61
IN.	.45	.77	2.06	1.31	.99	2.40	.95	.97	1.61	1.41	.70	.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1992, BY WATER YEAR (WY)

MEAN	.71	1.76	1.57	1.65	1.82	1.96	2.55	2.02	1.08	1.36	.87	1.26
MAX	2.29	4.09	4.33	3.12	2.94	4.26	6.51	4.83	2.90	3.41	2.08	6.38
(WY)	1990	1986	1984	1986	1984	1983	1983	1989	1989	1987	1987	1989
MIN	.054	.49	.39	.44	.71	.41	.20	.22	.25	.056	.072	.042
(WY)	1987	1985	1990	1985	1992	1985	1985	1986	1988	1983	1983	1983

01400350 MACS BROOK AT SOMERVILLE, NJ

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1982 - 1992	
ANNUAL TOTAL	448.01		295.90			
ANNUAL MEAN	1.23		.81		1.57	
HIGHEST ANNUAL MEAN					2.29	1989
LOWEST ANNUAL MEAN					.81	1992
HIGHEST DAILY MEAN	19	Apr 21	19	Dec 3	97	Apr 16 1986
LOWEST DAILY MEAN	.09	Oct 25	.09	Oct 25	.00	Jul 28 1983
ANNUAL SEVEN-DAY MINIMUM	.10	Oct 22	.10	Oct 22	.00	Sep 2 1983
INSTANTANEOUS PEAK FLOW			83	Jun 5	549	Apr 16 1986
INSTANTANEOUS PEAK STAGE			2.84	Jun 5	5.12	May 16 1990
INSTANTANEOUS LOW FLOW			.04	Nov 9	.00	Many days
ANNUAL RUNOFF (CFSM)	1.59		1.05		2.04	
ANNUAL RUNOFF (INCHES)	21.64		14.30		27.67	
10 PERCENT EXCEEDS	2.6		1.5		3.1	
50 PERCENT EXCEEDS	.47		.31		.38	
90 PERCENT EXCEEDS	.16		.14		.07	

e Estimated.

01400500 RARITAN RIVER AT MANVILLE, NJ

LOCATION.--Lat 40°33'18", long 74°35'02", Somerset County, Hydrologic Unit 02030105, on left bank at downstream side of bridge on North Main Street (Finderne Avenue) at Manville, and 1.4 mi upstream from Millstone River.

DRAINAGE AREA.--490 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1903 to March 1907 (published as "at Finderne"), August 1908 to April 1915 (gage heights only, published in WSP 521), August 1921 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1552: 1904, 1906, 1922, 1923(M), 1924-25, 1926-29(M), 1930, 1932-33(M), 1924-54. WDR NJ-75-1: 1964(M), 1969(M), 1970(P), 1971(P), 1972(P), 1973(P).

GAGE.--Water-stage recorder. Datum of gage is 20.61 ft above sea level. Prior to Aug. 15, 1923, nonrecording gage on downstream side of highway bridge at same site and datum. From Oct. 1, 1952 to Sept. 30, 1966, water-stage recorder at station at Bound Brook, above Calco Dam (station 01403000) used as auxiliary gage when stage is above 5.0 ft. In Oct. 1, 1966, water-stage recorder at station at Bound Brook, used as auxiliary gage, was moved downstream to present site (station 01403060). Between June 9, 1978 and June 7, 1979, gage temporarily relocated at site 1.4 mi downstream, just upstream of Millstone River, because of reconstruction of highway bridge.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Records given herein represent flow at gage only. Slight diurnal fluctuation at low flow. Flow regulated by Spruce Run and Round Valley Reservoirs (see Raritan River basin, reservoirs in). Diversion to Round Valley Reservoir since March 1966 (see Raritan River basin, diversions). Prior to Sept. 1, 1986, water diverted 1,500 ft upstream from station by Johns-Manville Corporation and returned to river 600 ft downstream from Millstone River (see Raritan River basin, diversions). Several measurements of water temperature were made during the year. National Weather Service and New Jersey Water Supply Authority operate gage-height telemeters at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	1400	*12,300	*13.85	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	294	225	213	306	364	425	793	341	1550	297	1280	177
2	262	223	247	317	330	411	708	336	654	262	465	175
3	248	219	2940	301	355	383	629	322	454	262	295	218
4	245	211	3590	455	357	360	575	302	369	451	285	534
5	236	218	1100	620	344	341	537	305	1080	344	259	391
6	260	220	716	448	338	329	488	299	8730	409	216	222
7	262	214	573	370	332	477	462	286	2310	332	187	220
8	240	213	477	323	337	1090	454	312	1370	264	174	274
9	221	214	418	314	316	652	426	467	2000	1140	278	234
10	225	239	861	406	e290	570	434	410	936	516	391	245
11	255	259	623	342	e334	2060	561	410	688	279	278	362
12	266	259	469	296	e331	1220	551	333	588	232	316	281
13	246	211	490	277	e322	797	444	299	518	233	229	195
14	231	206	663	604	358	664	398	285	469	421	259	185
15	272	197	562	882	370	581	382	264	445	379	233	219
16	381	196	432	479	1290	501	380	410	415	491	218	220
17	519	186	357	410	689	465	448	378	402	295	247	209
18	929	194	340	e476	497	438	478	311	389	303	429	205
19	452	213	e300	e410	536	523	432	292	433	287	357	204
20	335	204	e328	e406	554	541	402	255	724	235	257	193
21	285	199	359	e434	480	547	417	235	478	215	216	190
22	252	476	326	e409	424	553	419	223	391	202	193	219
23	250	1570	306	415	408	569	556	214	374	300	192	306
24	240	618	289	1530	402	536	452	218	407	477	193	226
25	224	387	253	754	402	570	507	242	487	300	191	186
26	240	307	226	551	951	976	432	238	407	238	206	319
27	229	266	223	451	842	3960	401	239	336	436	256	328
28	226	240	208	473	597	1750	399	226	332	328	235	336
29	220	219	380	422	526	1180	372	209	301	244	204	217
30	209	200	708	387	---	960	350	198	301	214	174	173
31	236	---	439	367	---	951	---	690	---	319	161	---
TOTAL	8990	8803	19416	14635	13676	25380	14287	9549	28338	10705	8874	7463
MEAN	290	293	626	472	472	819	476	308	945	345	286	249
MAX	929	1570	3590	1530	1290	3960	793	690	8730	1140	1280	534
MIN	209	186	208	277	290	329	350	198	301	202	161	173

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1992, BY WATER YEAR (WY)

MEAN	452	678	871	969	1076	1337	1152	802	533	471	470	467
MAX	2433	2460	2383	3856	2406	3260	3507	2707	2581	2542	2552	2068
(WY)	1904	1933	1984	1979	1925	1936	1983	1989	1972	1975	1955	1971
MIN	64.8	87.5	148	188	265	354	259	212	88.8	65.1	50.5	51.2
(WY)	1942	1932	1966	1966	1934	1981	1985	1926	1965	1955	1932	1941

01400500 RARITAN RIVER AT MANVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1904 - 1992	
ANNUAL TOTAL	245797		170116			
ANNUAL MEAN	673		465		771	
HIGHEST ANNUAL MEAN					1365	1984
LOWEST ANNUAL MEAN					309	1965
HIGHEST DAILY MEAN	6300	Jan 17	8730	Jun 6	21600	Sep 22 1938
LOWEST DAILY MEAN	184	Sep 2	161	Aug 31	17a	Sep 19 1964
ANNUAL SEVEN-DAY MINIMUM	198	Nov 15	192	Aug 28	29	Aug 27 1944
INSTANTANEOUS PEAK FLOW			12300	Jun 6	36300b	Aug 28 1971
INSTANTANEOUS PEAK STAGE			13.85	Jun 6	23.8c	Aug 28 1971
INSTANTANEOUS LOW FLOW			130	Feb 2	---	
10 PERCENT EXCEEDS	1290		695		1580	
50 PERCENT EXCEEDS	430		339		439	
90 PERCENT EXCEEDS	220		212		134	

a Does not include water diverted to Johns-Manville plant.
b From rating curve extended above 14,000 ft^3/s on basis of slope-area measurements at gage heights 14.9 and 20.42 ft.
c From floodmark (backwater from Millstone River).
e Estimated.

01400500 RARITAN RIVER AT MANVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1959, 1962-73, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
13...	1315	207	292	7.6	7.0	9.8	82	>11	140	22
FEB 1992										
06...	1315	235	281	7.9	2.0	14.8	107	E2.3	<20	<10
MAR										
18...	1330	431	264	8.0	6.0	14.7	118	0.7	<20	10
JUN										
03...	1045	459	196	7.5	20.0	8.5	94	E1.7	330	150
JUL										
30...	1300	216	262	8.4	25.0	9.8	119	E1.9	110	30

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
13...	88	22	8.0	12	2.0	73	30	22	0.1
FEB 1992									
06...	95	24	8.5	15	1.7	64	26	24	0.2
MAR									
18...	85	21	7.8	15	1.7	54	26	27	<0.1
JUN									
03...	64	16	5.8	12	1.7	39	20	20	<0.1
JUL									
30...	92	23	8.5	15	1.9	67	24	25	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
13...	3.0	147	0.007	0.009	0.96	0.92	0.17	--	0.46
FEB 1992									
06...	7.6	151	0.012	0.012	1.35	1.35	0.06	0.05	0.44
MAR									
18...	10	148	0.013	0.012	1.60	1.56	0.16	0.08	0.34
JUN									
03...	10	113	0.032	0.033	0.89	0.89	<0.03	0.05	0.64
JUL									
30...	9.7	151	0.013	0.012	0.95	0.93	<0.03	<0.03	0.26

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
13...	0.51	1.4	1.4	0.05	0.06	6.7	0.5	1	0.56
FEB 1992									
06...	0.31	1.8	1.7	0.05	0.08	2.2	0.4	12	7.6
MAR									
18...	0.28	1.9	1.8	0.05	0.03	2.3	0.2	6	7.0
JUN									
03...	0.54	1.5	1.4	0.12	0.09	5.4	0.5	12	15
JUL									
30...	0.28	1.2	1.2	0.11	0.10	17	0.2	2	1.2

01400500 RARITAN RIVER AT MANVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
NOV 1991 13...	1315	36	<1	<10	50	<1	<1	--
JUN 1992 03...	1045	22	<1	<10	40	<1	<1	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
NOV 1991 13...	280	3	40	<0.10	3	<1	50
JUN 1992 03...	410	1	80	<0.10	<1	<1	<10

01400540 MILLSTONE RIVER NEAR MANALAPAN, NJ

LOCATION.--Lat 40°15'44", long 74°25'13", Middlesex County, Hydrologic Unit 02030105, at bridge on State Route 33, 1.3 mi west of Manalapan, 5.5 mi east of Hightstown, and 8.4 mi above Rocky Brook.

DRAINAGE AREA.--7.37 mi^2.

PERIOD OF RECORD.--Water years 1960-64, 1981 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
16...	1000	6.0	111	7.2	13.0	9.1	88	E1.4	110	130
FEB 1992										
06...	1000	6.2	123	6.4	0.0	14.1	97	E2.3	<20	10
MAR										
25...	1045	14	144	6.8	8.5	11.8	100	<1.0	<20	<10
JUN										
08...	1000	30	108	6.9	20.0	7.5	83	<1.0	20	60
JUL										
28...	1000	5.6	105	7.6	19.5	7.5	83	<1.0	460	300

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
16...	30	6.5	3.4	5.9	3.1	14	12	14	0.2
FEB 1992									
06...	31	6.4	3.6	6.6	2.3	8.4	17	15	0.2
MAR									
25...	29	6.4	3.2	9.0	1.9	4.6	17	18	<0.1
JUN									
08...	29	6.5	3.2	5.8	2.5	6.5	16	13	0.1
JUL									
28...	39	9.7	3.5	5.5	2.3	13	13	14	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
16...	9.7	69	0.006	0.005	1.20	1.25	0.07	0.05	0.37
FEB 1992									
06...	8.5	73	0.011	0.011	2.00	1.95	0.05	0.10	0.27
MAR									
25...	9.0	73	0.008	0.008	1.34	1.36	0.11	0.10	0.18
JUN									
08...	9.8	66	0.010	0.014	1.11	1.09	0.17	0.12	0.52
JUL									
28...	9.4	71	0.012	0.011	1.23	1.21	<0.03	0.05	0.19

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
16...	0.24	1.6	1.5	0.07	<0.02	2.2	0.5	4	0.06
FEB 1992									
06...	0.16	2.3	2.1	0.06	<0.02	1.0	0.4	6	0.10
MAR									
25...	0.08	1.5	1.4	0.03	<0.02	1.2	0.4	5	0.19
JUN									
08...	0.37	1.6	1.5	0.11	<0.02	2.4	1.1	14	1.1
JUL									
28...	0.35	1.4	1.6	0.10	0.10	5.1	0.6	6	0.09

01400540 MILLSTONE RIVER NEAR MANALAPAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 16...	1000	<10	<1	<10	70	<1	<1	<1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 16...	1600	1	60	<0.10	2	<1	<10

01400650 MILLSTONE RIVER AT GROVERS MILL, NJ

LOCATION.--Lat 40°19'19", long 74°36'31", Mercer County, Hydrologic Unit 02030105, at bridge on Millstone Road in Grovers Mill, 0.3 mi upstream from Cranbury Brook, and 2.7 mi north of Dutch Neck.

DRAINAGE AREA.--43.4 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
16...	1200	17	210	6.8	14.0	4.3	42	4.5	>24000	>2400
FEB 1992										
06...	1330	23	232	6.9	2.5	13.2	97	E7.2	50	<10
MAR										
25...	1315	59	374	7.2	6.5	12.2	98	<1.0	<20	<10
JUN										
09...	1000	81	171	7.2	21.5	6.1	69	E1.9	490	480
JUL										
28...	1330	16	274	7.4	23.5	7.9	93	<1.0	220	40

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
16...	47	12	4.2	15	4.7	14	21	25	0.3
FEB 1992									
06...	52	13	4.8	15	3.6	7.0	26	27	0.2
MAR									
25...	52	13	4.7	38	3.0	22	29	63	<0.1
JUN									
09...	39	9.3	3.9	14	3.4	18	23	18	0.2
JUL									
28...	55	14	4.8	27	3.9	40	28	24	0.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
16...	8.2	118	0.099	0.114	3.94	3.88	1.29	1.28	2.3
FEB 1992									
06...	8.9	122	0.043	0.041	3.56	3.60	2.40	2.57	3.1
MAR									
25...	7.4	184	0.036	0.035	2.64	2.77	0.45	0.46	0.85
JUN									
09...	8.9	105	0.028	0.022	3.05	3.05	0.12	0.14	1.2
JUL									
28...	7.3	156	0.018	0.017	5.06	5.05	<0.03	0.04	0.41

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
16...	2.0	6.2	5.9	0.40	0.30	4.0	0.4	6	0.28
FEB 1992									
06...	2.7	6.7	6.3	0.31	0.19	2.1	0.5	13	0.81
MAR									
25...	0.59	3.5	3.4	0.08	<0.02	2.3	0.3	6	0.96
JUN									
09...	0.62	4.2	3.7	0.73	0.03	5.5	--	34	7.4
JUL									
28...	0.47	5.5	5.5	0.17	0.06	12	0.5	17	0.73

01400650 MILLSTONE RIVER AT GROVERS MILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 16...	1200	20	<1	<10	110	8	<1	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 16...	620	110	50	<0.10	2	<1	10

01401000 STONY BROOK AT PRINCETON, NJ

LOCATION.--Lat 40°19'59", long 74°40'56", Mercer County, Hydrologic Unit 02030105, on right bank 10 ft downstream of bridge on U.S. Highway 206, 1.6 mi southwest of Princeton, and 4.0 mi upstream from Carnegie Lake.

DRAINAGE AREA.--44.5 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 62.23 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--No estimated daily discharges. Records good. Since July 1959 some regulation by several small reservoirs, combined capacity, 49,800,000 gal. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0645	*3,090	*8.76	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	4.7	15	32	27	31	73	21	118	6.1	7.9	1.3
2	4.5	4.8	25	32	20	30	61	21	43	5.5	5.2	1.2
3	4.3	4.8	506	30	21	28	49	19	26	5.5	4.1	2.2
4	3.8	4.8	392	62	20	26	41	16	19	10	3.9	2.6
5	3.6	4.5	98	92	18	25	37	15	550	9.7	4.0	1.4
6	3.6	4.4	62	53	16	24	32	14	1450	12	3.1	1.2
7	3.1	4.3	47	39	17	70	29	13	181	13	2.8	1.9
8	2.8	4.3	38	32	18	132	29	21	104	8.3	2.2	1.7
9	2.5	4.3	34	34	15	66	27	49	74	21	2.2	1.6
10	2.3	4.2	120	60	13	50	27	36	47	14	2.2	2.1
11	2.4	9.5	71	43	15	293	65	32	33	8.2	4.8	12
12	3.1	14	46	33	11	108	48	22	27	6.0	15	9.0
13	2.5	10	44	30	12	68	33	18	23	5.1	8.0	4.1
14	2.5	8.0	64	82	16	53	27	17	20	6.8	7.8	2.6
15	5.9	6.9	60	102	25	44	25	14	17	9.2	5.9	2.3
16	13	6.3	37	44	192	36	25	42	15	20	6.5	2.3
17	58	5.8	30	31	81	33	44	41	13	11	8.5	1.9
18	77	5.3	28	32	55	32	87	26	11	9.1	14	1.7
19	23	5.2	20	21	77	54	119	23	115	6.4	12	1.7
20	13	5.0	22	21	72	67	72	18	73	5.2	7.0	1.5
21	9.7	5.2	22	21	51	101	56	15	25	4.8	4.7	1.3
22	8.6	34	22	20	40	92	53	14	17	4.1	3.6	1.5
23	8.1	180	21	37	37	82	53	12	15	7.8	3.0	3.4
24	7.4	44	21	180	35	82	40	10	13	6.5	2.5	1.6
25	6.8	25	19	66	34	74	37	11	14	7.4	2.4	2.3
26	6.5	18	15	42	102	104	33	11	13	5.6	2.2	15
27	6.3	15	16	33	80	397	29	12	10	7.2	4.4	15
28	5.6	14	14	33	50	135	27	11	10	7.6	3.0	15
29	5.5	13	67	29	43	90	23	9.2	7.9	6.7	2.6	10
30	4.9	12	119	28	---	69	23	8.3	6.9	4.6	1.6	5.9
31	4.9	---	56	29	---	86	---	112	---	9.3	1.4	---
TOTAL	310.2	481.3	2151	1423	1213	2582	1324	703.5	3090.8	263.7	158.5	127.3
MEAN	10.0	16.0	69.4	45.9	41.8	83.3	44.1	22.7	103	8.51	5.11	4.24
MAX	77	180	506	180	192	397	119	112	1450	21	15	15
MIN	2.3	4.2	14	20	11	24	23	8.3	6.9	4.1	1.4	1.2
CFSM	.22	.36	1.56	1.03	.94	1.87	.99	.51	2.32	.19	.11	.10
IN.	.26	.40	1.80	1.19	1.01	2.16	1.11	.59	2.58	.22	.13	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

MEAN	25.4	53.4	86.0	89.6	106	125	103	64.0	32.7	31.2	31.7	28.6
MAX	120	212	244	306	203	231	295	216	164	216	240	158
(WY)	1980	1973	1987	1979	1971	1980	1983	1989	1989	1975	1955	1975
MIN	1.00	1.50	4.56	3.22	19.7	31.3	20.9	8.95	2.67	.56	.14	1.31
(WY)	1958	1966	1966	1981	1978	1985	1985	1963	1957	1957	1966	1970

01401000 STONY BROOK AT PRINCETON, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1954 - 1992	
ANNUAL TOTAL	18669.7		13828.3			
ANNUAL MEAN	51.1		37.8		64.5	
HIGHEST ANNUAL MEAN					109	1973
LOWEST ANNUAL MEAN					28.5	1966
HIGHEST DAILY MEAN	963	Jan 12	1450	Jun 6	3410	Aug 27 1971
LOWEST DAILY MEAN	1.8	Aug 7	1.2	Sep 2	.00	Aug 5 1966
ANNUAL SEVEN-DAY MINIMUM	2.4	Sep 12	1.6	Aug 31	.00	Aug 5 1966
INSTANTANEOUS PEAK FLOW			3090	Jun 6	8960a	Aug 28 1971
INSTANTANEOUS PEAK STAGE			8.76	Jun 6	14.26	Aug 28 1971
INSTANTANEOUS LOW FLOW			1.1	Sep 3	.00	Many days
ANNUAL RUNOFF (CFSM)	1.15		.85		1.45	
ANNUAL RUNOFF (INCHES)	15.61		11.56		19.70	
10 PERCENT EXCEEDS	125		77		138	
50 PERCENT EXCEEDS	21		17		22	
90 PERCENT EXCEEDS	3.3		2.8		2.0	

a From rating extended above 4,000 ft^3/s on basis of contracted-opening measurement of peak flow.

01401000 STONY BROOK AT PRINCETON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-75, 1978 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1956 to September 1962, October 1963 to September 1964, October 1965 to June 1970.
SUSPENDED-SEDIMENT DISCHARGE: January 1956 to June 1970.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
31...	1130	5.1	282	7.8	9.5	9.6	84	E1.6	20	5
FEB 1992										
06...	1000	11	257	8.4	0.0	15.2	104	E7.5	70	20
MAR										
24...	1315	78	270	8.9	7.0	14.8	121	<1.0	20	<10
JUN										
02...	1300	39	189	7.7	18.0	9.3	99	2.2	5400	630
JUL										
29...	1100	7.4	268	8.6	19.0	6.7	72	<1.0	170	480

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
31...	97	23	9.7	19	3.6	78	32	25	0.1
FEB 1992									
06...	84	20	8.2	17	2.0	56	28	24	0.1
MAR									
24...	63	15	6.2	20	1.5	33	26	37	<0.1
JUN									
02...	58	14	5.7	12	2.1	43	21	18	<0.1
JUL									
29...	79	19	7.7	20	2.6	69	23	27	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
31...	2.6	162	0.007	0.008	0.11	0.11	<0.03	<0.03	0.37
FEB 1992									
06...	7.7	146	0.008	0.008	1.11	1.13	0.05	<0.03	0.34
MAR									
24...	9.5	138	0.009	0.007	0.70	0.68	0.09	0.07	0.48
JUN									
02...	10	111	0.014	0.013	0.54	0.54	<0.03	<0.03	0.78
JUL									
29...	3.3	145	0.007	0.006	0.17	0.17	<0.03	<0.03	0.39

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
31...	0.34	0.48	0.45	0.09	0.09	5.4	0.2	1	0.01
FEB 1992									
06...	0.29	1.4	1.4	0.04	0.03	2.8	0.3	1	0.03
MAR									
24...	0.28	1.2	0.96	0.04	0.03	3.5	0.5	4	0.84
JUN									
02...	0.51	1.3	1.0	0.11	0.08	11	0.5	7	0.74
JUL									
29...	0.32	0.56	0.49	0.11	0.09	19	0.3	2	0.04

01401000 STONY BROOK AT PRINCETON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
OCT 1991											
31...	1130	--	<1	1	13	240	740	0.5	5.0	--	18
31...	1130	34	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991										
31...	--	--	--	<1	--	30	20	--	30	--
31...	<10	70	<1	--	<1	--	--	3	--	90

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991										
31...	15000	--	30	--	610	--	<0.01	--	20	--
31...	--	1	--	10	--	<0.10	--	3	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
31...	<1	--	120	19	<1.0	<1.0	19	3.6	2.3	5.3
31...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
31...	0.3	<0.1	<0.1	<0.1	<1.0	<0.1	<10	<0.1	<1.00	<10
31...	--	--	--	--	--	--	--	--	--	--

01401600 BEDEN BROOK NEAR ROCKY HILL, NJ

LOCATION.--Lat 40°24'52", long 74°39'02", Somerset County, Hydrologic Unit 02030105, at bridge on U.S. Route 206 at State Route 533, 0.7 mi upstream from Pike Run, 1.2 mi northwest of Rocky Hill, and 4.6 mi north of Princeton.

DRAINAGE AREA.--27.6 mi^2.

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
30...	1130	3.4	320	7.8	8.0	10.3	87	2.7	70	7
FEB 1992										
06...	1230	13	267	8.6	0.5	15.4	107	E2.4	170	100
MAR										
24...	1045	40	319	8.5	5.0	16.6	130	<1.0	20	<10
JUN										
02...	1030	35	187	7.5	16.0	9.8	100	2.5	2400	800
JUL										
29...	1300	5.0	332	7.9	20.5	6.5	72	<1.0	460	170

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
30...	120	28	11	21	3.7	77	46	27	0.2
FEB 1992									
06...	86	21	8.2	16	2.0	50	32	20	0.1
MAR									
24...	67	16	6.6	26	1.5	31	27	49	<0.1
JUN									
02...	58	14	5.6	11	2.1	36	26	16	<0.1
JUL									
29...	99	24	9.4	21	3.2	70	35	32	0.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
30...	4.7	194	0.065	0.064	1.26	1.30	0.03	0.05	0.56
FEB 1992									
06...	8.8	146	0.023	0.022	1.87	1.77	0.17	0.12	0.46
MAR									
24...	10	160	0.011	0.009	1.17	1.25	0.08	0.07	0.32
JUN									
02...	12	114	0.029	0.028	1.24	1.26	<0.03	<0.03	0.83
JUL									
29...	9.1	182	0.047	0.047	1.63	1.46	<0.03	<0.03	0.36

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
30...	0.68	1.8	2.0	0.30	0.27	6.5	0.3	2	0.02
FEB 1992									
06...	0.33	2.3	2.1	0.11	0.21	2.3	0.2	1	0.03
MAR									
24...	0.30	1.5	1.5	0.06	0.03	2.7	0.3	3	0.32
JUN									
02...	0.61	2.1	1.9	0.17	0.11	6.8	0.7	17	1.6
JUL									
29...	0.40	2.0	1.9	0.25	0.23	20	--	5	0.07

01401600 BEDEN BROOK NEAR ROCKY HILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
OCT 1991											
30...	1130	--	<1	1	7.0	290	720	<0.1	2.0	--	21
30...	1130	22	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991										
30...	--	--	--	<1	--	10	20	--	10	--
30...	<10	110	<1	--	<1	--	--	5	--	100

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991										
30...	14000	--	30	--	810	--	0.02	--	20	--
30...	--	3	--	20	--	<0.10	--	2	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
30...	<1	--	100	41	<1.0	<0.1	2.0	0.2	<1.0	0.5
30...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
30...	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<0.1	<1.00	<10
30...	--	--	--	--	--	--	--	--	--	--

01401650 PIKE RUN AT BELLE MEAD, NJ

LOCATION.--Lat 40°28'05", long 74°38'57", Somerset County, Hydrologic Unit 02030105, on right bank 20 ft upstream of bridge on Township Line Road, 0.7 mi east of Belle Mead, 0.8 mi upstream of Cruser Brook, and 1.0 mi downstream of bridge on U.S. Route 206.

DRAINAGE AREA.--5.36 mi^2.

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete parking-block control. Datum of gage is 58.85 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Rain-gage and gage-height radio telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1810, 13.5 ft, Aug. 28, 1971, from floodmark, present datum.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0145	*363	*5.77	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.3	1.8	2.7	2.2	2.8	6.3	2.5	14	.60	4.3	.28
2	1.1	1.3	3.2	2.5	2.3	2.7	5.6	2.5	12	.55	1.1	.25
3	.99	1.3	105	2.5	1.6	2.5	4.7	2.3	3.0	.60	.76	.29
4	.99	1.2	41	17	1.6	2.2	4.2	2.0	2.0	2.7	.64	.71
5	.88	1.2	8.7	11	1.7	2.1	3.7	2.0	68	1.0	.57	.37
6	1.1	1.2	5.3	5.2	1.7	2.0	3.3	2.0	107	9.5	.44	.32
7	1.0	1.3	4.2	3.7	1.3	20	3.1	1.9	13	1.2	.43	.48
8	.97	1.3	3.5	3.0	1.4	16	3.2	4.5	5.7	.85	.37	.53
9	.91	1.2	3.2	5.3	1.4	5.9	2.7	11	4.1	7.3	.40	.37
10	.89	1.3	19	6.5	1.4	7.3	2.8	7.6	2.9	1.2	.46	2.2
11	1.0	3.1	5.9	4.1	1.1	40	9.2	5.4	2.2	.89	10	5.9
12	1.3	1.2	4.2	3.4	1.2	9.1	5.4	3.5	2.0	.79	2.9	.84
13	1.1	.81	7.5	3.2	.92	5.3	3.8	2.9	1.6	.75	.86	.49
14	1.1	.79	11	20	1.1	4.1	3.3	2.5	1.3	.74	1.9	.44
15	5.3	.70	6.2	8.1	5.4	3.4	3.0	2.0	1.2	2.5	1.1	.40
16	2.7	.68	4.0	4.6	26	2.7	3.4	7.1	1.1	2.6	1.2	.36
17	13	.60	3.2	4.8	6.6	2.5	6.0	4.9	1.1	.88	1.5	.33
18	4.1	.62	2.9	2.6	5.8	2.5	5.9	3.0	1.1	.78	3.6	.31
19	1.8	.69	2.3	2.9	9.8	3.9	10	2.2	2.1	.68	1.4	.26
20	1.5	.65	1.9	1.7	7.3	7.4	6.1	1.8	2.0	.58	.98	.25
21	1.5	.62	2.0	1.7	4.8	11	5.3	1.6	1.2	.51	.70	.21
22	1.8	26	2.1	1.6	3.7	8.6	5.2	1.5	1.1	.44	.57	.27
23	1.6	22	1.9	9.6	3.5	11	4.8	1.4	1.0	4.9	.50	2.8
24	1.5	4.4	2.0	29	3.3	9.4	3.9	1.5	1.2	1.7	.44	.43
25	1.5	2.8	1.7	12	3.1	11	3.9	2.6	1.1	.90	.44	.34
26	1.4	2.2	1.5	3.6	21	21	3.5	1.6	.96	.71	.44	7.1
27	1.3	1.7	1.5	5.9	7.4	49	3.2	1.6	.89	4.2	.37	3.6
28	1.3	1.6	1.4	2.5	4.9	14	2.9	1.4	.86	1.1	.37	2.3
29	1.2	1.5	15	2.4	4.0	7.8	2.7	1.2	.76	.69	.33	.87
30	1.2	1.4	9.5	2.3	---	5.8	2.6	1.1	.62	.55	.31	.56
31	1.2	---	3.7	2.3	---	9.6	---	19	---	6.9	.29	---
TOTAL	58.43	86.66	286.3	187.7	137.52	302.6	133.7	108.1	257.09	59.29	39.67	33.86
MEAN	1.88	2.89	9.24	6.05	4.74	9.76	4.46	3.49	8.57	1.91	1.28	1.13
MAX	13	26	105	29	26	49	10	19	107	9.5	10	7.1
MIN	.88	.60	1.4	1.6	.92	2.0	2.6	1.1	.62	.44	.29	.21
CFSM	.35	.54	1.72	1.13	.88	1.82	.83	.65	1.60	.36	.24	.21
IN.	.41	.60	1.99	1.30	.95	2.10	.93	.75	1.78	.41	.28	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1992, BY WATER YEAR (WY)

MEAN	3.65	9.20	10.3	10.6	12.5	11.2	14.1	10.4	5.79	6.95	3.54	3.25
MAX	13.4	22.3	33.6	23.0	26.0	30.2	43.1	26.2	20.9	26.1	9.94	17.1
(WY)	1990	1989	1984	1982	1982	1983	1983	1989	1989	1984	1990	1989
MIN	.83	2.09	.73	.043	4.74	3.05	2.18	1.89	.81	.36	.17	.51
(WY)	1987	1985	1981	1981	1992	1981	1985	1986	1986	1980	1980	1983

01401650 PIKE RUN AT BELLE MEAD, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1980 - 1992	
ANNUAL TOTAL	2758.35		1690.92			
ANNUAL MEAN	7.56		4.62		8.52	
HIGHEST ANNUAL MEAN					14.3	1984
LOWEST ANNUAL MEAN					3.79	1981
HIGHEST DAILY MEAN	141	Aug 20	107	Jun 6	528	Jul 7 1984
LOWEST DAILY MEAN	.37	Jul 20	.21	Sep 21	.00	Aug 20 1980
ANNUAL SEVEN-DAY MINIMUM	.51	Jul 15	.28	Sep 16	.00	Aug 20 1980
INSTANTANEOUS PEAK FLOW			363	Jun 6	2010	Jul 7 1984
INSTANTANEOUS PEAK STAGE			5.77	Jun 6	11.76	Jul 7 1984
INSTANTANEOUS LOW FLOW			.21	Sep 21	.00	Aug 20 1980
ANNUAL RUNOFF (CFSM)	1.41		.86		1.59	
ANNUAL RUNOFF (INCHES)	19.14		11.74		21.61	
10 PERCENT EXCEEDS	17		9.5		15	
50 PERCENT EXCEEDS	2.8		2.0		2.7	
90 PERCENT EXCEEDS	.69		.54		.32	

01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ

LOCATION.--Lat 40°28'30", long 74°34'34", Somerset County, Hydrologic Unit 02030105, on left bank 30 ft downstream from highway bridge at Blackwells Mills, and 0.3 mi downstream from Six Mile Run.

DRAINAGE AREA.--258 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1903 to December 1904 (gage heights only), August 1921 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at Millstone" 1903-04.

REVISED RECORDS.--WSP 1552: 1924-25(M), 1926.

GAGE.--Water-stage recorder. Concrete control since Nov. 18, 1933. Datum of gage is 26.97 ft above sea level. June 27, 1903 to Dec. 31, 1904, nonrecording gage at bridge 2.0 mi downstream at Millstone at different datum. Aug. 4, 1921 to Aug. 16, 1928, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good except those above 1,200 ft^3/s, which are fair. Inflow from and losses to Delaware and Raritan Canal above station. Flow slightly regulated by Carnegie Lake, capacity, 310,000,000 gal and several smaller reservoirs, combined capacity, 49,800,000 gal. Several measurements of water temperature were made during the year. National Weather Service and New Jersey Water Supply Authority operate gage-height telemeters at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	2145	*4,530	*9.19	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	71	118	236	170	215	371	135	675	84	315	58
2	92	72	144	199	151	185	320	135	429	77	156	49
3	84	70	1250	185	139	174	277	129	275	72	118	50
4	81	69	2130	323	132	167	242	129	181	122	96	63
5	79	69	1240	541	129	158	219	121	512	115	89	59
6	86	69	624	432	121	151	198	109	3400	149	83	60
7	79	69	391	333	117	225	187	103	3200	108	69	64
8	75	69	283	252	119	485	178	133	1100	90	58	68
9	71	67	248	230	120	336	170	263	511	196	58	65
10	68	67	461	276	108	265	166	236	305	138	60	67
11	68	105	453	250	104	735	256	229	228	103	97	148
12	84	118	330	217	102	586	248	207	186	87	206	113
13	81	107	291	195	96	357	201	162	155	80	157	86
14	74	99	319	264	103	280	177	140	134	83	167	74
15	81	92	308	382	118	233	162	117	118	95	154	65
16	116	86	247	266	528	205	157	163	107	176	155	58
17	177	79	206	196	441	189	206	239	97	119	169	50
18	385	77	193	172	322	176	358	202	90	105	245	49
19	221	76	168	147	326	224	452	172	179	87	221	48
20	168	74	152	137	318	319	374	163	844	76	207	48
21	134	75	150	136	288	401	294	129	1180	69	163	46
22	110	165	151	133	234	407	258	106	718	66	114	49
23	96	728	147	172	211	390	245	98	302	88	92	80
24	91	429	147	619	195	381	222	95	173	127	82	72
25	89	265	141	421	187	367	209	107	146	101	79	62
26	84	190	134	294	318	421	221	103	128	91	71	175
27	81	146	129	226	376	1330	195	102	116	150	92	214
28	78	124	124	198	298	895	173	98	112	105	153	216
29	75	114	208	184	248	564	155	94	101	80	100	151
30	72	107	423	174	---	388	145	88	90	73	74	105
31	69	---	317	175	---	386	---	348	---	123	68	---
TOTAL	3251	3948	11627	7965	6119	11595	7036	4655	15792	3235	3968	2512
MEAN	105	132	375	257	211	374	235	150	526	104	128	83.7
MAX	385	728	2130	619	528	1330	452	348	3400	196	315	216
MIN	68	67	118	133	96	151	145	88	90	66	58	46
CFSM	.41	.51	1.45	1.00	.82	1.45	.91	.58	2.04	.40	.50	.32
IN.	.47	.57	1.68	1.15	.88	1.67	1.01	.67	2.28	.47	.57	.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	188	334	450	497	573	669	534	361	238	244	218	221
MAX	838	1113	1344	1743	1199	1383	1520	1264	823	1808	1267	1277
(WY)	1928	1973	1984	1979	1925	1936	1983	1989	1989	1975	1971	1938
MIN	42.6	51.2	67.0	62.9	105	158	103	82.8	45.5	19.3	17.3	20.2
(WY)	1942	1966	1966	1981	1934	1985	1985	1963	1963	1966	1981	1980

01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	120634		81703			
ANNUAL MEAN	331		223		376	
HIGHEST ANNUAL MEAN					690	1975
LOWEST ANNUAL MEAN					165	1985
HIGHEST DAILY MEAN	3360	Jan 13	3400	Jun 6	17400	Aug 28 1971
LOWEST DAILY MEAN	47	Aug 8	46	Sep 21	5.0	Sep 16 1923
ANNUAL SEVEN-DAY MINIMUM	52	Sep 12	50	Sep 16	6.3	Aug 7 1966
INSTANTANEOUS PEAK FLOW			4530	Jun 6	22200	Aug 28 1971
INSTANTANEOUS PEAK STAGE			9.19	Jun 6	18.68a	Aug 28 1971
INSTANTANEOUS LOW FLOW			44	Sep 21	5.0	Sep 16 1923
ANNUAL RUNOFF (CFSM)	1.28		.87		1.46	
ANNUAL RUNOFF (INCHES)	17.39		11.78		19.81	
10 PERCENT EXCEEDS	727		390		803	
50 PERCENT EXCEEDS	186		150		197	
90 PERCENT EXCEEDS	68		70		58	

a From high-water mark.

01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-1969, 1973, 1976-1980, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
29...	1100	76	278	7.1	13.5	5.9	56	E1.5	70	4
FEB 1992										
05...	1400	123	295	7.6	2.5	13.0	97	E2.3	20	<10
MAR										
26...	1045	394	304	7.5	7.0	12.2	100	2.2	270	50
JUN										
09...	1330	465	161	6.8	21.5	6.5	74	E1.9	90	530
JUL										
30...	1000	73	276	7.4	22.5	5.9	68	<1.0	330	140

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
29...	88	19	9.9	19	4.9	52	38	26	0.2
FEB 1992									
05...	79	18	8.3	20	3.2	37	36	34	0.2
MAR									
26...	67	16	6.6	23	2.2	32	29	41	<0.1
JUN									
09...	47	11	4.7	9.9	2.8	24	19	16	0.1
JUL									
30...	77	18	7.9	21	3.6	49	32	27	0.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
29...	6.9	167	0.019	0.017	2.70	2.80	<0.03	<0.03	0.55
FEB 1992									
05...	9.2	166	0.024	0.023	3.30	3.26	0.19	0.16	0.54
MAR									
26...	8.3	153	0.012	0.009	1.76	1.78	0.09	0.06	0.32
JUN									
09...	9.9	96	0.025	0.023	1.82	1.81	0.14	0.13	0.88
JUL									
30...	4.7	157	0.022	0.021	2.88	2.83	0.07	0.09	0.26

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
29...	0.45	3.3	3.3	0.37	0.84	--	0.4	2	0.41
FEB 1992									
05...	0.52	3.8	3.8	0.25	0.19	3.0	0.6	3	1.0
MAR									
26...	0.24	2.1	2.0	0.13	0.07	3.0	0.5	8	8.5
JUN									
09...	0.65	2.7	2.5	0.19	0.10	5.9	1.0	24	30
JUL									
30...	0.33	3.1	3.2	0.38	0.31	14	0.4	10	2.0

01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
OCT 1991											
29...	1100	--	<1	1	4.0	250	760	<0.1	3.7	--	22
29...	1100	15	--	--	--	--	--	--	--	<1	--
JUN 1992											
09...	1330	39	--	--	--	--	--	--	--	1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991										
29...	--	--	--	<1	--	8	10	--	10	--
29...	<10	100	<1	--	<1	--	--	3	--	220
JUN 1992										
09...	<10	40	<1	--	<1	--	--	3	--	1200

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991										
29...	10000	--	20	--	540	--	0.01	--	20	--
29...	--	2	--	70	--	<0.10	--	3	--	<1
JUN 1992										
09...	--	3	--	110	--	<0.10	--	2	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
29...	<1	--	90	1	<1.0	<0.1	3.0	0.4	<1.0	0.7
29...	--	<10	--	--	--	--	--	--	--	--
JUN 1992										
09...	--	20	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
29...	0.1	<0.1	<1.0	<0.1	<0.1	<0.1	<5.0	<0.1	<1.00	<10
29...	--	--	--	--	--	--	--	--	--	--
JUN 1992										
09...	--	--	--	--	--	--	--	--	--	--

01402600 ROYCE BROOK TRIBUTARY NEAR BELLE MEAD, NJ

LOCATION.--Lat 40°29'56", long 74°39'05", Somerset County, Hydrologic Unit 02030105, on right bank 25 ft upstream from bridge on State Highway 514 (Amwell Road), 1,200 ft upstream from mouth, and 2.0 mi north of Belle Mead.

DRAINAGE AREA.--1.20 mi^2.

PERIOD OF RECORD.--October 1966 to September 1974, January 1980 to current year.

REVISED RECORDS.--WRD NJ-69: 1967, 1968. WDR NJ-85-1: 1980-84(P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 66.98 ft above sea level. Prior to September 1974 at same site at datum 0.79 ft higher.

REMARKS.--No estimated daily discharges. Records good. Some regulation from storm-water detention basin 542 ft upstream of gage since 1980. Several measurements of water temperature were made during the year. Rain-gage and gage-height radio telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 125 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 11	1545	*202	*4.23	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.39	.38	.87	.83	.50	.70	1.3	.33	2.4	.25	1.8	.12
2	.34	.38	2.5	.72	.39	.62	1.1	.43	1.2	.23	.77	.13
3	.29	.35	27	.65	.36	.58	.88	.34	.71	1.2	.58	1.1
4	.24	.35	8.2	4.3	.36	.54	.78	.32	.54	1.7	.45	.39
5	.53	.28	2.6	2.1	.34	.50	.67	.37	18	.49	.40	.22
6	.44	.29	1.8	1.3	.29	.48	.46	.37	17	5.7	.33	.17
7	.21	.29	1.4	.97	.28	5.3	.48	.33	2.9	.68	.31	.53
8	.18	.32	1.1	.75	.37	2.7	.44	2.3	1.6	.50	.28	.26
9	.15	.22	1.3	1.6	.33	1.5	.44	1.3	1.1	6.1	1.6	.20
10	.18	.20	4.7	1.2	.24	3.7	.45	1.7	.86	1.0	.36	5.6
11	.82	1.5	1.7	.85	.26	8.3	1.7	.85	.65	.72	14	5.2
12	.30	.43	1.2	.72	.24	2.3	.53	.69	.51	.65	1.8	.77
13	.16	.33	2.4	.68	.25	1.4	.36	.61	.47	.49	.79	.51
14	.15	.28	2.6	4.8	.47	1.0	.32	.81	.40	.87	2.5	.42
15	2.9	.24	1.7	1.8	3.3	1.1	.27	.43	.41	2.4	1.1	.39
16	.65	.28	1.1	1.2	5.3	1.2	1.1	3.4	.34	.90	1.1	.30
17	7.5	.16	.93	.85	1.8	.62	1.0	1.0	.32	.47	1.3	.26
18	2.2	.16	.81	.71	1.5	.54	1.2	.69	.32	.38	2.7	.26
19	1.1	.18	.59	.53	1.8	2.2	1.4	.54	1.2	.31	1.0	.19
20	.84	.20	.54	.50	1.4	2.2	.78	.42	.68	.28	.75	.13
21	.65	.25	.54	.46	.98	2.2	.66	.36	.42	.29	.62	.15
22	.53	11	.49	.41	.82	2.0	.74	.30	.34	.33	.53	.67
23	.54	5.3	.49	4.6	.71	2.9	.56	.31	.29	4.5	.48	1.2
24	.44	1.9	.46	5.7	.65	2.2	.49	.67	.86	.88	.41	.17
25	.40	1.1	.38	1.8	.79	2.0	.51	.70	.34	.54	.30	.88
26	.41	.83	.33	1.3	3.9	5.4	.40	.45	.29	.76	.31	4.2
27	.38	.63	.33	.95	1.6	9.0	.39	.40	.32	3.6	.30	2.9
28	.44	.50	.32	.76	1.1	2.6	.45	.26	.29	.72	.29	1.1
29	.38	.44	4.4	.66	.86	1.6	.34	.21	.24	.49	.27	.65
30	.38	.44	2.1	.62	---	1.2	.35	.35	.23	.48	.18	.45
31	.39	---	1.1	.57	---	2.1	---	7.5	---	5.3	.16	---
TOTAL	24.51	29.21	75.98	44.89	31.19	70.68	20.55	28.74	55.23	43.21	37.77	29.52
MEAN	.79	.97	2.45	1.45	1.08	2.28	.68	.93	1.84	1.39	1.22	.98
MAX	7.5	11	27	5.7	5.3	9.0	1.7	7.5	18	6.1	14	5.6
MIN	.15	.16	.32	.41	.24	.48	.27	.21	.23	.23	.16	.12
CFSM	.66	.81	2.04	1.21	.90	1.90	.57	.77	1.53	1.16	1.02	.82
IN.	.76	.91	2.36	1.39	.97	2.19	.64	.89	1.71	1.34	1.17	.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	1.46	2.70	3.23	2.64	3.29	3.15	2.92	2.27	1.48	1.96	2.21	1.98
MAX	3.40	7.55	8.85	6.25	7.37	7.06	8.25	6.34	5.00	7.17	9.71	12.5
(WY)	1967	1986	1984	1975	1981	1967	1983	1989	1972	1984	1971	1971
MIN	.20	.57	.22	.031	.69	.98	.41	.42	.070	.015	.008	.000
(WY)	1969	1974	1990	1981	1980	1985	1985	1986	1971	1968	1972	1972

01402600 ROYCE BROOK TRIBUTARY NEAR BELLE MEAD, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	735.42		491.48			
ANNUAL MEAN	2.01		1.34		2.43	
HIGHEST ANNUAL MEAN					3.86	1984
LOWEST ANNUAL MEAN					1.34	1992
HIGHEST DAILY MEAN	45	Aug 20	27	Dec 3	160	Aug 28 1971
LOWEST DAILY MEAN	.12	Sep 22	.12	Sep 1	.00	Jul 10 1968
ANNUAL SEVEN-DAY MINIMUM	.18	Sep 12	.21	Aug 27	.00	Jul 10 1968
INSTANTANEOUS PEAK FLOW			202	Aug 11	1450	Aug 28 1971
INSTANTANEOUS PEAK STAGE			4.23	Aug 11	7.80	Aug 28 1971
INSTANTANEOUS LOW FLOW			.09	Aug 31		
ANNUAL RUNOFF (CFSM)	1.68		1.12		2.03	
ANNUAL RUNOFF (INCHES)	22.80		15.24		27.52	
10 PERCENT EXCEEDS	3.9		2.8		5.2	
50 PERCENT EXCEEDS	.66		.62		.69	
90 PERCENT EXCEEDS	.22		.26		.09	

01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, NJ

LOCATION.--Lat 40°33'05", long 74°32'54", Somerset County, Hydrologic Unit 02030105, on right bank 1,000 ft downstream from Calco Dam and Cuckold Brook, 1,400 ft upstream of bridge on Interstate 287, 1.2 mi downstream from Millstone River, and 1.2 mi southwest of Bound Brook.

DRAINAGE AREA.--785 mi^2 (includes 11 mi^2 which drains into the Delaware and Raritan Canal).

PERIOD OF RECORD.--September 1903 to March 1909, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1966 published as "Raritan River at Bound Brook" (station 01403000).

REVISED RECORDS.--WSP 1552: 1903-07, 1946(M), 1949, 1952(P).

GAGE.--Water-stage recorder. Datum of gage is sea level. Sept. 12, 1903 to Mar. 31, 1909, nonrecording gages at highway bridge, 1.2 mi downstream at different datum. October 1944 to Sept. 30, 1966, water-stage recorder and concrete control at site 1,000 ft upstream at datum 18.06 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair. Water diverted 1.2 mi above station by Elizabethtown Water Co. for municipal supply (see Raritan River basin, diversions). Flow regulated by Spruce Run and Round Valley Reservoirs (see Raritan River basin, reservoirs in). Diversions to and releases from Round Valley Reservoir (see Raritan River basin, diversions and station 01399690). Slight diurnal fluctuations at low flow. Several measurements of water temperature were made during the year. New Jersey Water Supply Authority and National Weather Service gage-height telemeters at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	1600	*15,000	*26.98	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	283	163	270	e452	e372	528	1060	316	2160	218	1360	147
2	233	170	328	e422	e310	477	919	310	998	171	534	141
3	210	167	4290	e415	e324	438	773	281	638	194	315	171
4	198	149	6230	759	e328	405	694	259	448	445	276	418
5	195	155	2510	1130	e302	375	628	259	1400	339	242	344
6	214	159	1360	848	e287	358	548	233	12100	462	199	188
7	230	149	984	688	e281	556	512	213	6010	318	156	183
8	200	147	768	547	e298	1480	505	269	2630	211	140	222
9	164	147	655	520	e275	903	456	563	2700	1230	231	182
10	166	180	1320	650	e216	736	464	503	1290	586	352	222
11	191	238	1070	556	e274	2770	674	488	896	299	337	414
12	233	282	782	468	e269	1790	683	393	715	228	467	311
13	218	217	774	420	e220	1090	505	306	616	203	307	200
14	191	195	1000	869	e306	882	457	278	532	362	349	152
15	211	191	871	1230	e364	750	442	258	447	349	319	171
16	365	186	696	705	1700	600	442	514	390	565	293	159
17	465	169	543	479	1090	533	561	549	348	315	324	135
18	1200	172	481	e503	753	500	719	427	321	297	550	126
19	589	187	e317	e415	784	623	775	378	349	269	480	139
20	371	180	e363	e354	805	738	680	317	1270	182	372	126
21	275	184	e425	e364	700	820	585	249	1390	165	293	119
22	229	651	e396	e344	559	848	543	204	983	149	227	158
23	214	2340	e380	e454	506	843	658	181	532	277	203	289
24	200	1050	e365	2060	476	800	528	208	418	483	179	208
25	180	624	e321	1110	474	813	566	256	485	305	169	151
26	195	447	e262	e720	1160	1270	500	239	392	228	173	382
27	184	352	e248	e525	1130	5690	443	239	315	469	236	466
28	174	303	e231	e529	807	2760	429	215	305	346	272	470
29	161	262	536	e457	671	1690	383	187	244	211	217	291
30	150	249	1110	e405	---	1260	342	179	226	167	164	207
31	169	---	730	e403	---	1210	---	915	---	269	146	---
TOTAL	8258	10065	30616	19801	16041	34536	17474	10186	41548	10312	9882	6892
MEAN	266	335	988	639	553	1114	582	329	1385	333	319	230
MAX	1200	2340	6230	2060	1700	5690	1060	915	12100	1230	1360	470
MIN	150	147	231	344	216	358	342	179	226	149	140	119

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1992, BY WATER YEAR (WY)

MEAN	661	1057	1454	1583	1721	2090	1761	1292	792	688	684	678
MAX	2953	3684	4172	5825	3232	3858	5326	3862	3883	4624	3576	3158
(WY)	1904	1973	1974	1979	1971	1978	1983	1989	1972	1975	1955	1975
MIN	113	138	178	179	485	454	230	329	117	84.7	69.9	76.1
(WY)	1958	1966	1966	1981	1980	1985	1985	1992	1965	1955	1957	1957

01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1903 - 1992	
ANNUAL TOTAL	340588		215611			
ANNUAL MEAN	933		589		1201	
HIGHEST ANNUAL MEAN					2046	1975
LOWEST ANNUAL MEAN					480	1985
HIGHEST DAILY MEAN	9620	Mar 4	12100	Jun 6	34100	Aug 28 1971
LOWEST DAILY MEAN	124	Sep 24	119	Sep 21	37	Sep 6 1964
ANNUAL SEVEN-DAY MINIMUM	142	Sep 12	137	Sep 16	46	Sep 4 1957
INSTANTANEOUS PEAK FLOW			15000	Jun 6	46100	Aug 28 1971
INSTANTANEOUS PEAK STAGE			26.98	Jun 6	37.47a	Aug 28 1971
INSTANTANEOUS LOW FLOW			93	Sep 18		
10 PERCENT EXCEEDS	2020		1090		2590	
50 PERCENT EXCEEDS	526		368		641	
90 PERCENT EXCEEDS	167		171		169	

a From floodmark.
e Estimated.

01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ

LOCATION.--Lat 40°36'44", long 74°35'28", Somerset County, Hydrologic Unit 02030105, on left bank 150 ft upstream from bridge on Crim Road, 1.4 mi northwest of Martinsville, and 1.8 mi upstream from confluence with East Branch Middle Brook.

DRAINAGE AREA.--1.99 mi^2.

PERIOD OF RECORD.--June 1979 to current year.

REVISED RECORDS.--WDR NJ-91-1: 1990.

GAGE.--Water-stage recorder. Datum of gage is 240.48 ft above sea level (levels by Somerset County).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Rain-gage and gage-height radio telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	2045	*452	*4.98	July 9	0230	427	4.92

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.34	.61	.91	.91	1.1	2.0	1.0	2.9	.49	.68	.34
2	.29	.41	2.4	.93	.75	1.1	1.8	.98	1.3	.49	.49	.34
3	.34	.38	80	.98	.70	1.1	1.7	.93	.91	2.2	.49	.76
4	.37	.38	11	15	.70	.99	1.6	.90	.80	1.6	.49	.46
5	.51	.34	1.9	2.8	.74	.98	1.5	.94	80	.58	e.44	e.35
6	.38	.34	1.5	1.6	.69	.95	1.3	.90	25	1.2	.38	e.34
7	.30	.34	1.2	1.4	.68	5.7	1.3	.90	2.4	.52	.34	e.40
8	.30	.32	1.1	1.2	.74	2.6	1.2	1.3	25	.47	.34	e.40
9	.34	.30	1.5	1.7	.67	1.6	1.1	1.3	3.4	29	2.2	e.33
10	.36	.34	15	1.5	.55	13	1.1	1.6	1.1	.72	.43	e.43
11	.59	.66	1.7	1.1	.61	20	2.9	1.1	.80	.59	.97	e.90
12	.34	.32	1.5	.99	.59	2.6	1.5	.92	.65	.55	.50	e.37
13	.33	.27	4.5	.98	.56	1.8	1.2	.90	.61	.58	.39	e.33
14	.48	.26	3.7	15	.73	1.5	1.1	.88	.60	.82	e1.4	e.36
15	2.2	.26	1.9	2.2	8.8	1.2	1.1	.82	.61	3.2	e.41	e.35
16	.26	.23	1.4	1.4	9.8	1.0	1.8	5.4	e.54	.87	.53	e.33
17	9.6	.23	1.1	1.1	1.7	1.0	2.3	1.3	e.48	.68	.59	e.32
18	.65	.23	1.0	.97	1.6	1.0	2.1	1.0	.61	.82	1.1	e.28
19	.34	.23	.90	.78	2.2	1.4	2.1	.91	.72	.59	.51	e.26
20	.34	.23	.86	.76	1.6	1.6	1.7	.87	.67	.52	.42	e.25
21	.33	.39	.86	.74	1.4	1.8	1.6	.82	.61	.49	.39	e.24
22	.30	30	.90	.66	1.1	1.6	2.4	.84	.61	.49	.39	e.60
23	.30	5.5	.90	18	1.1	1.7	3.8	.80	.61	3.3	.37	e.44
24	.28	.86	.84	8.8	1.1	1.6	1.8	.87	.83	.74	.34	e.39
25	.32	.69	.74	1.7	1.2	5.7	1.5	.88	.63	.58	.34	e.55
26	.44	.61	.68	1.4	10	34	1.3	.83	.61	.57	.34	e1.8
27	.36	.61	.68	1.1	2.1	32	1.3	.82	.86	1.8	4.4	e1.1
28	.32	.61	.68	1.0	1.6	3.9	1.1	.81	.59	.58	.50	e.53
29	.32	.61	4.3	.98	1.3	2.4	1.1	.76	.55	.55	.37	e.34
30	.34	.61	1.9	.98	---	1.9	1.1	.78	.54	.55	.34	e.30
31	.34	---	1.1	.98	---	3.0	---	29	---	1.3	.34	---
TOTAL	22.23	46.90	148.35	89.64	56.22	151.82	49.4	62.06	155.54	57.44	21.22	14.19
MEAN	.72	1.56	4.79	2.89	1.94	4.90	1.65	2.00	5.18	1.85	.68	.47
MAX	9.6	30	80	18	10	34	3.8	29	80	29	4.4	1.8
MIN	.26	.23	.61	.66	.55	.95	1.1	.76	.48	.47	.34	.24
CFSM	.36	.79	2.40	1.45	.97	2.46	.83	1.01	2.61	.93	.34	.24
IN.	.42	.88	2.77	1.68	1.05	2.84	.92	1.16	2.91	1.07	.40	.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1992, BY WATER YEAR (WY)

MEAN	2.26	3.79	4.21	4.04	4.52	4.92	6.02	5.75	2.55	2.20	1.20	1.72
MAX	9.28	10.5	11.5	9.20	9.02	9.29	11.6	19.4	6.88	6.40	5.85	7.43
(WY)	1990	1989	1984	1991	1988	1980	1983	1989	1989	1984	1990	1989
MIN	.22	.67	.18	.12	.92	1.64	.74	.76	.41	.083	.12	.11
(WY)	1987	1981	1981	1981	1980	1985	1985	1986	1980	1980	1980	1980

01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1979 - 1992	
ANNUAL TOTAL	1361.80		875.01			
ANNUAL MEAN	3.73		2.39		3.60	
HIGHEST ANNUAL MEAN					5.48	1989
LOWEST ANNUAL MEAN					1.88	1981
HIGHEST DAILY MEAN	94	Jan 16	80	Dec 3	149	Oct 20 1989
LOWEST DAILY MEAN	.17	Sep 17	.23	Nov 16	.00	Sep 19 1980
ANNUAL SEVEN-DAY MINIMUM	.20	Sep 12	.24	Nov 14	.00	Sep 19 1980
INSTANTANEOUS PEAK FLOW			452a	Jun 5	1170a	May 16 1990
INSTANTANEOUS PEAK STAGE			4.98	Jun 5	6.21	May 16 1990
INSTANTANEOUS LOW FLOW			.17	Oct 17	.00	Sep 19 1980
ANNUAL RUNOFF (CFSM)	1.87		1.20		1.81	
ANNUAL RUNOFF (INCHES)	25.46		16.36		24.59	
10 PERCENT EXCEEDS	5.8		2.9		6.3	
50 PERCENT EXCEEDS	.86		.85		.88	
90 PERCENT EXCEEDS	.28		.34		.13	

a From rating curve extended above 200 ft^3/s on basis of flood insurance study.
e Estimated.

01403300 RARITAN RIVER AT QUEENS BRIDGE AT BOUND BROOK, NJ
(National stream-quality accounting network)

LOCATION.--Lat 40°33'34", long 74°31'41", Somerset County, Hydrologic Unit 02030105, at Queens Bridge on Main street in Bound Brook, 1.7 mi upstream of Fieldsville Dam.

DRAINAGE AREA.--804 mi^2.

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.--Instantaneous discharges are determined at Raritan River below Calco Dam at Bound Brook (station 01403060).

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 1991										
21...	1100	E160	346	7.7	9.5	1.2	12.6	111	>600	460
FEB 1992										
25...	1100	E470	310	7.6	3.0	3.0	13.6	101	K980	700
MAY										
29...	1130	E170	352	7.5	19.5	2.3	10.8	117	350	K11
AUG										
14...	1230	E340	287	7.5	23.0	2.0	9.6	112	K450	84

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE IT-FLD (MG/L AS HCO3)	ALKALINITY, CARBONATE IT-FLD (MG/L - CACO3)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV 1991										
21...	110	27	9.9	22	4.0	--	--	*63	48	32
FEB 1992										
25...	87	22	7.8	21	1.4	--	--	*49	36	38
MAY										
29...	98	25	8.6	24	3.4	77	63	63	44	38
AUG										
14...	80	20	7.3	21	3.4	52	42	42	37	29

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
NOV 1991									
21...	0.3	3.0	197	0.02	0.02	2.7	2.7	0.10	0.09
FEB 1992									
25...	0.1	6.8	173	0.02	0.02	2.0	2.1	0.39	0.41
MAY									
29...	0.2	7.0	203	0.04	0.04	2.9	2.9	0.26	0.26
AUG									
14...	0.2	5.1	160	0.02	0.02	2.2	2.3	0.03	0.03

DATE	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1991									
21...	0.70	3.4	0.44	0.36	0.38	0.36	3	--	100
FEB 1992									
25...	0.90	2.9	0.24	0.18	0.18	0.18	22	--	86
MAY									
29...	0.70	3.6	0.38	0.35	0.37	0.33	68	--	40
AUG									
14...	0.40	2.6	0.37	0.35	0.30	0.29	6	--	--

*Laboratory determination.

01403300 RARITAN RIVER AT QUEENS BRIDGE AT BOUND BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
NOV 1991							
21...	1100	20	31	<3	50	<4	33
FEB 1992							
25...	1100	<10	37	<3	62	7	85
MAY							
29...	1130	30	27	<3	67	7	74
AUG							
14...	1230	20	32	<3	45	<4	33

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV 1991						
21...	<10	2	<1	<1.0	200	<6
FEB 1992						
25...	<10	1	<1	<1.0	150	<6
MAY						
29...	<10	2	<1	<1.0	180	<6
AUG						
14...	<10	1	<1	<1.0	150	<6

01403400 GREEN BROOK AT SEELEY MILLS, NJ

LOCATION.--Lat 40°39'53", long 74°24'10", Somerset County, Hydrologic Unit 02030105, on right bank at Seeley Mills, 250 ft downstream from Blue Brook, 300 ft downstream from bridge on Diamond Hill Road, and 0.5 mi northwest of Scotch Plains.

DRAINAGE AREA.--6.23 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-64, 1969: annual maximum, water years 1969-79. June 1979 to current year. Fragmentary records 1944-53 in the files of the Geological Survey. Crest-stage data 1927-38, 1958-68 in files of Union County Park Commission.

REVISED RECORDS.--WDR-NJ 81-1: 1979(M). WDR-NJ 87-1: 1971(M), 1973(M), 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 184.44 ft above sea level. From 1944 to 1953, water-stage recorder and masonry dam about 400 ft downstream above lower Seeley Mills dam at different datum. From July 1969 to May 1979, crest-stage gage about 450 ft downstream below lower Seeley Mills dam (washed out May 29, 1968) at different datum.

REMARKS.--Records good except for estimated daily discharges and from Feb. 24 to Apr. 1, which are fair. Several measurements of water temperature were made during the year. Rain-gage and gage-height radio telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1938 reached an elevation of 196.5 ft, New Jersey Geological Survey datum, above lower Seeley Mills dam, discharge, 5,840 ft^3/s, computed by State Water Policy Commission.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	1945	*1,150	*5.29	Aug. 27	1500	424	3.39
July 9	0245	730	4.28				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	3.1	4.9	5.7	3.6	5.0	7.0	5.1	12	3.4	4.9	2.6
2	3.4	3.1	5.1	5.8	3.2	4.0	7.6	5.2	6.8	3.2	2.5	2.6
3	3.1	3.1	63	5.6	3.2	4.0	7.1	4.9	5.4	7.1	2.8	4.9
4	3.1	3.1	30	17	3.3	4.0	6.7	4.8	4.4	7.9	2.5	3.3
5	4.0	3.1	8.2	9.1	3.3	4.0	6.4	5.3	357	3.9	2.2	2.7
6	4.7	3.1	6.2	7.1	3.2	4.0	6.2	4.7	134	5.9	2.1	2.6
7	3.2	3.1	5.2	6.1	3.3	11	6.0	4.6	29	3.4	2.0	3.0
8	2.9	3.1	4.7	5.1	3.5	8.0	5.7	8.2	19	3.2	2.0	2.7
9	3.0	3.1	5.1	6.6	3.2	6.0	5.7	7.4	15	64	2.8	2.6
10	3.0	3.2	13	6.1	3.1	9.0	5.6	7.5	12	5.2	2.1	22
11	3.5	5.5	6.2	5.4	3.2	23	8.7	5.8	9.8	4.3	2.6	11
12	3.2	3.6	5.1	5.1	3.1	9.0	6.3	5.3	8.4	4.1	2.1	3.5
13	3.0	3.2	8.4	4.8	3.0	9.0	5.6	5.1	6.9	4.6	2.0	3.1
14	2.9	3.1	8.4	13	3.5	7.0	5.5	4.8	6.0	22	3.9	3.0
15	4.5	3.1	6.9	6.7	15	6.0	5.3	4.8	5.5	11	2.4	2.9
16	3.5	3.0	6.0	5.1	22	5.0	7.0	13	5.0	11	2.7	2.9
17	11	2.8	5.5	4.5	e5.9	5.0	7.8	5.9	4.8	5.3	2.6	2.9
18	4.5	2.9	5.4	4.3	e5.7	5.0	7.3	5.3	4.6	5.7	4.5	2.8
19	3.0	2.8	4.6	3.9	e7.1	7.0	7.1	4.7	8.0	4.5	2.3	2.8
20	2.8	2.8	4.6	3.8	e6.0	7.0	6.6	4.4	5.6	4.1	2.0	2.8
21	2.8	2.9	4.9	3.9	e4.7	6.0	6.4	4.2	4.5	4.0	1.9	3.0
22	2.8	39	4.8	3.9	e4.3	6.0	6.8	3.9	4.2	3.9	1.9	4.6
23	2.8	16	4.8	18	e4.2	7.0	7.6	3.8	4.0	10	1.9	4.9
24	2.8	5.4	4.5	14	7.0	6.0	6.4	6.1	5.9	4.8	1.9	2.8
25	2.8	4.8	4.4	4.9	6.0	9.0	6.3	4.8	4.2	4.1	2.0	3.2
26	2.8	4.8	4.2	4.4	17	55	5.9	4.2	4.0	4.3	2.0	14
27	2.9	4.5	4.3	4.0	7.0	76	5.8	4.0	3.9	4.5	32	6.2
28	3.0	4.5	4.3	3.8	6.0	20	5.5	3.7	3.7	3.9	4.3	4.2
29	3.1	4.6	11	3.7	5.0	11	5.3	3.7	3.5	3.7	3.3	3.3
30	3.1	4.8	8.1	3.7	---	9.0	5.2	3.6	3.4	3.7	2.8	3.1
31	3.1	---	6.3	3.7	---	11	---	54	---	12	2.7	---
TOTAL	107.8	155.2	268.1	198.8	168.6	358.0	192.4	212.8	700.5	242.7	109.7	136.0
MEAN	3.48	5.17	8.65	6.41	5.81	11.5	6.41	6.86	23.3	7.83	3.54	4.53
MAX	11	39	63	18	22	76	8.7	54	357	64	32	22
MIN	2.8	2.8	4.2	3.7	3.0	4.0	5.2	3.6	3.4	3.2	1.9	2.6
CFSM	.56	.83	1.39	1.03	.93	1.85	1.03	1.10	3.75	1.26	.57	.73
IN.	.64	.93	1.60	1.19	1.01	2.14	1.15	1.27	4.18	1.45	.66	.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1992, BY WATER YEAR (WY)

MEAN	7.06	10.5	12.4	10.9	12.0	15.0	19.6	14.8	8.25	7.25	5.30	6.12
MAX	22.8	22.4	46.9	20.6	20.9	36.5	41.1	42.0	23.3	18.9	16.1	24.6
(WY)	1990	1986	1984	1991	1984	1983	1983	1989	1992	1984	1990	1989
MIN	1.72	2.04	2.57	1.67	2.95	5.11	3.50	4.48	2.74	1.89	1.33	1.85
(WY)	1983	1982	1981	1981	1980	1985	1985	1986	1981	1980	1981	1982

01403400 GREEN BROOK AT SEELEY MILLS, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1979 - 1992	
ANNUAL TOTAL	3316.7		2850.6			
ANNUAL MEAN	9.09		7.79		10.8	
HIGHEST ANNUAL MEAN					18.2	1984
LOWEST ANNUAL MEAN					5.16	1981
HIGHEST DAILY MEAN	115	Mar 4	357	Jun 5	407	Apr 5 1984
LOWEST DAILY MEAN	2.6	Jul 17	1.9	Aug 21	.00	Sep 11 1981
ANNUAL SEVEN-DAY MINIMUM	2.7	Jul 14	1.9	Aug 20	.05	Sep 24 1981
INSTANTANEOUS PEAK FLOW			1150	Jun 5	6240a	Aug 2 1973
INSTANTANEOUS PEAK STAGE			5.29	Jun 5	16.10b	Aug 2 1973
INSTANTANEOUS LOW FLOW			1.8	Aug 7	.00	Sep 11 1981
ANNUAL RUNOFF (CFSM)	1.46		1.25		1.73	
ANNUAL RUNOFF (INCHES)	19.80		17.02		23.47	
10 PERCENT EXCEEDS	15		11		20	
50 PERCENT EXCEEDS	5.1		4.6		5.4	
90 PERCENT EXCEEDS	3.0		2.8		1.6	

a From rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow.
b Site and datum then in use.
e Estimated.

01403535 EAST BRANCH STONY BROOK AT BEST LAKE, AT WATCHUNG, NJ

LOCATION.--Lat 40°38'25", long 74°26'52", Somerset County, Hydrologic Unit 02030105, 700 ft upstream of dam on Best Lake in Watchung, 1,400 ft upstream of mouth, and 0.5 mi northeast of Watchung.

DRAINAGE AREA.--1.57 mi^2.

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 193.87 ft above sea level (levels by Somerset County).

REMARKS.--No estimated daily discharges. Records fair except those less than 2.0 ft^3/s, which are poor. Records given herein represent flow over dam and leakage through ports in dam. Several measurements of water temperature were made during the year. Rain-gage and gage-height radio telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 2, 1973, reached a stage of 5.4 ft, present datum, from floodmarks, discharge, 2,840 ft^3/s, by computation of flow over dam, embankment, and road.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 26	2200	103	1.68	July 9	0245	*508	*2.60
June 5	1500	409	2.42	Sep. 10	1145	113	1.71

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.75	.70	1.0	1.1	.78	2.9	.94	3.3	.34	.49	.19
2	.53	.94	1.3	.94	1.1	1.1	2.5	.94	1.5	.31	.33	.16
3	.49	.87	24	.84	.87	1.1	2.1	.84	.69	.49	.31	.33
4	.54	.79	8.2	4.3	.79	.94	1.8	.94	.51	1.2	.31	.30
5	.93	.93	3.2	2.9	.85	.94	1.5	.90	91	.37	.28	.24
6	1.0	1.0	2.4	1.7	.82	.86	1.3	.75	21	.36	.26	.22
7	.51	1.1	2.0	1.2	.74	2.6	1.3	.73	6.0	.25	.25	.23
8	.51	1.0	1.7	1.1	.77	2.4	1.2	1.3	4.1	.21	.24	.25
9	.57	.94	2.2	1.6	.69	1.7	1.2	1.6	3.5	21	.25	.23
10	.63	.87	6.6	1.4	.58	2.5	1.7	1.7	3.0	.53	.29	4.9
11	1.0	2.5	3.4	1.1	.59	6.6	4.0	1.3	2.3	.30	.25	.67
12	1.3	1.4	2.9	.94	.60	3.0	3.0	1.0	1.5	.24	.26	.25
13	.49	1.1	4.4	.94	.57	2.2	1.4	.94	1.3	.28	.22	.23
14	.52	1.1	4.9	3.2	.62	1.7	1.3	.88	.92	.61	.28	.21
15	1.7	1.4	3.7	1.5	3.2	1.5	1.3	.79	.65	.29	.27	.21
16	1.2	1.4	3.0	1.2	5.3	1.3	1.7	3.9	.60	.39	.31	.20
17	3.3	.96	2.6	.94	1.9	1.3	2.3	1.4	.57	.55	.40	.20
18	1.0	.41	2.3	.85	1.5	1.2	2.1	1.1	.54	.63	.46	.19
19	.58	.39	1.7	.66	2.0	1.9	2.1	.89	1.0	.55	.32	.19
20	.49	.40	1.7	.66	1.7	1.9	2.0	.79	.80	.46	.29	.18
21	.46	.43	1.5	.64	1.3	1.7	2.0	.79	.49	.46	.22	.19
22	.43	13	1.1	.60	1.2	1.5	2.0	.65	.44	.48	.21	.23
23	.43	5.8	1.1	4.2	.79	1.7	2.1	.63	.43	1.9	.21	.35
24	.43	1.8	.97	5.5	1.1	1.6	1.6	.77	.52	.59	.20	.22
25	.43	1.0	.94	2.5	1.2	2.9	1.3	.99	.47	.46	.19	.21
26	.43	.78	.89	1.7	4.5	16	1.3	.69	.42	.42	.19	.73
27	.43	.71	.88	1.3	1.9	16	1.3	.75	.44	.47	.61	.40
28	.47	.66	.70	1.2	1.3	4.5	1.3	.64	.41	.42	.28	.32
29	.61	.62	3.4	1.1	1.0	3.1	1.1	.60	.38	.36	.24	.26
30	.68	.59	2.5	1.1	---	2.9	1.1	.56	.36	.34	.21	.24
31	.66	---	1.5	1.1	---	3.7	---	13	---	.97	.20	---
TOTAL	23.25	45.64	98.38	49.91	40.58	93.12	53.8	43.70	149.14	36.23	8.83	12.73
MEAN	.75	1.52	3.17	1.61	1.40	3.00	1.79	1.41	4.97	1.17	.28	.42
MAX	3.3	13	24	5.5	5.3	16	4.0	13	91	21	.61	4.9
MIN	.43	.39	.70	.60	.57	.78	1.1	.56	.36	.21	.19	.16
CFSM	.48	.97	2.02	1.03	.89	1.91	1.14	.90	3.17	.74	.18	.27
IN.	.55	1.08	2.33	1.18	.96	2.21	1.27	1.04	3.53	.86	.21	.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1992, BY WATER YEAR (WY)

MEAN	1.48	2.88	3.14	2.73	3.46	3.55	4.68	3.94	2.06	1.54	.94	1.04
MAX	4.91	5.73	10.1	5.62	5.75	9.02	10.2	10.9	4.97	4.53	2.19	4.65
(WY)	1990	1986	1984	1991	1984	1983	1983	1989	1992	1984	1990	1989
MIN	.24	.90	.52	.068	1.40	1.67	.82	1.25	.76	.36	.095	.25
(WY)	1987	1983	1981	1981	1992	1981	1985	1986	1981	1980	1980	1983

01403535 EAST BRANCH STONY BROOK AT BEST LAKE, AT WATCHUNG, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1980 - 1992	
ANNUAL TOTAL	886.93		655.31			
ANNUAL MEAN	2.43		1.79		2.63	
HIGHEST ANNUAL MEAN					4.47	1984
LOWEST ANNUAL MEAN					1.48	1981
HIGHEST DAILY MEAN	39	Jan 16	91	Jun 5	91	Jun 5 1992
LOWEST DAILY MEAN	.11	Jun 30	.16	Sep 2	.00	Aug 30 1980
ANNUAL SEVEN-DAY MINIMUM	.18	Jun 27	.19	Sep 15	.00	Sep 3 1980
INSTANTANEOUS PEAK FLOW			508	Jul 9	508	Jul 9 1992
INSTANTANEOUS PEAK STAGE			2.60	Jul 9	2.60	Jul 9 1992
INSTANTANEOUS LOW FLOW			.14	Sep 3	.00	Aug 30 1980
ANNUAL RUNOFF (CFSM)	1.55		1.14		1.68	
ANNUAL RUNOFF (INCHES)	21.02		15.53		22.78	
10 PERCENT EXCEEDS	4.7		3.0		5.2	
50 PERCENT EXCEEDS	1.2		.92		1.1	
90 PERCENT EXCEEDS	.42		.25		.29	

01403540 STONY BROOK AT WATCHUNG, NJ

LOCATION.--Lat 40°38'12", long 74°27'06", Somerset County, Hydrologic Unit 02030105, on right bank at Watchung Borough Administration Building, 150 ft downstream from bridge on Mountain Boulevard, and 2.9 mi upstream from confluence with Green Brook.

DRAINAGE AREA.--5.51 mi^2.

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR NJ-86-1: 1973 (P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 172.24 ft above sea level.

REMARKS.--Records fair. Occasional regulation from Watchung and Best Lakes directly upstream from station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 2, 1973, reached a stage of 14.5 ft, from floodmark, discharge, 10,500 ft^3/s, from slope-area measurements of peak flow.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 26	2230	343	2.43	July 9	0300	*1,550	*3.45
June 5	1515	1,540	3.44				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.5	3.0	4.5	3.5	3.3	9.1	3.8	12	1.4	4.8	1.1
2	2.2	1.3	4.7	4.4	3.1	3.2	8.1	3.7	6.5	1.2	2.3	1.0
3	2.0	1.4	72	4.4	3.0	2.9	7.2	3.3	4.7	2.8	1.8	3.2
4	1.9	1.4	22	22	3.0	2.1	6.7	3.2	3.7	8.0	1.8	3.6
5	2.7	1.7	7.7	12	2.9	1.4	6.3	3.2	357	3.1	1.6	1.7
6	5.5	1.5	7.8	7.6	2.8	.91	5.9	3.0	77	4.4	1.1	1.3
7	2.9	2.0	7.0	6.2	2.8	5.7	5.7	2.8	22	2.5	1.1	1.6
8	2.1	1.8	5.6	5.5	2.9	5.1	5.5	4.2	16	1.8	1.1	1.6
9	1.9	1.5	6.5	6.9	2.8	2.9	5.2	6.5	13	87	1.9	1.5
10	2.0	1.6	26	6.3	2.4	4.1	5.2	5.7	10	4.7	2.0	17
11	2.1	4.4	10	5.1	2.6	17	7.3	4.5	9.1	3.4	1.5	8.4
12	2.8	2.8	7.7	4.5	2.5	6.9	6.0	3.6	7.8	2.8	1.8	2.7
13	1.9	2.2	17	4.3	2.2	5.5	4.9	3.4	6.8	2.5	1.4	1.9
14	1.8	2.4	17	14	2.3	4.7	4.7	3.3	5.9	4.9	2.9	1.7
15	4.0	2.4	11	7.4	17	4.2	4.4	3.0	5.1	4.1	2.3	1.6
16	4.1	1.8	7.6	5.8	24	3.6	5.7	12	4.2	5.0	2.2	1.6
17	14	e1.8	5.5	5.2	3.0	3.4	7.7	5.7	3.5	2.8	2.4	1.7
18	5.6	e1.7	4.8	4.9	2.4	3.4	7.5	4.4	3.1	3.1	4.0	1.4
19	3.0	e1.6	4.3	4.1	3.5	5.2	6.9	3.8	4.9	2.6	2.2	1.4
20	2.5	e1.7	3.9	4.1	2.5	5.0	6.5	3.3	5.2	2.1	1.7	1.3
21	2.2	2.2	4.3	4.2	2.0	4.7	6.3	3.3	3.1	1.7	1.7	1.1
22	2.1	39	3.6	3.9	1.7	4.4	6.3	2.9	2.6	1.6	1.5	2.2
23	2.0	15	3.2	21	1.7	5.0	7.0	2.5	2.7	7.1	1.3	4.5
24	1.9	5.4	2.9	23	1.6	4.2	5.8	2.7	3.8	4.2	1.2	1.7
25	1.9	3.8	2.3	7.1	1.9	6.6	5.4	3.7	3.0	2.7	1.1	1.6
26	1.5	3.3	1.8	5.8	15	46	4.9	2.7	2.3	2.3	1.0	11
27	2.2	3.0	1.6	4.7	5.2	48	4.8	2.6	2.2	3.6	2.1	4.9
28	1.8	3.0	1.5	4.1	4.2	14	4.4	2.1	2.0	2.9	1.6	3.2
29	1.6	2.9	17	3.9	3.8	10	4.1	1.8	1.7	1.9	1.1	1.8
30	1.7	2.7	8.7	3.7	---	8.8	3.9	1.8	1.4	1.6	1.3	1.5
31	1.6	---	5.5	3.7	---	12	---	46	---	4.5	1.4	---
TOTAL	87.6	118.8	303.5	224.3	128.3	254.21	179.4	158.5	602.3	184.3	57.2	90.8
MEAN	2.83	3.96	9.79	7.24	4.42	8.20	5.98	5.11	20.1	5.95	1.85	3.03
MAX	14	39	72	23	24	48	9.1	46	357	87	4.8	17
MIN	1.5	1.3	1.5	3.7	1.6	.91	3.9	1.8	1.4	1.2	1.0	1.0
CFSM	.51	.72	1.78	1.31	.80	1.49	1.09	.93	3.64	1.08	.33	.55
IN.	.59	.80	2.05	1.51	.87	1.72	1.21	1.07	4.07	1.24	.39	.61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1992, BY WATER YEAR (WY)

MEAN	5.79	8.97	11.9	13.4	12.4	15.8	16.5	13.1	7.30	6.53	4.02	5.16
MAX	17.9	22.2	37.1	37.5	20.1	31.9	38.3	37.8	20.1	32.1	11.0	18.6
(WY)	1990	1978	1984	1979	1988	1983	1983	1989	1992	1975	1990	1975
MIN	1.31	1.94	1.79	1.08	3.60	5.60	3.89	3.42	2.27	1.27	.81	.87
(WY)	1983	1977	1981	1981	1980	1985	1985	1986	1980	1977	1981	1983

01403540 STONY BROOK AT WATCHUNG, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1975 - 1992	
ANNUAL TOTAL	3002.89		2389.21			
ANNUAL MEAN	8.23		6.53		10.1	
HIGHEST ANNUAL MEAN					16.0	1984
LOWEST ANNUAL MEAN					5.60	1981
HIGHEST DAILY MEAN	114	Jan 16	357	Jun 5	358	Jul 14 1975
LOWEST DAILY MEAN	.88	Sep 12	.91	Mar 6	.00	Sep 18 1982
ANNUAL SEVEN-DAY MINIMUM	1.1	Sep 7	1.3	Aug 23	.06	Sep 13 1982
INSTANTANEOUS PEAK FLOW			1550	Jul 9	4420a	Jul 14 1975
INSTANTANEOUS PEAK STAGE			3.45	Jul 9	10.40	Jul 14 1975
INSTANTANEOUS LOW FLOW			.77	Mar 4	.00	Sep 13 1982
ANNUAL RUNOFF (CFSM)	1.49		1.18		1.82	
ANNUAL RUNOFF (INCHES)	20.27		16.13		24.80	
10 PERCENT EXCEEDS	17		10		20	
50 PERCENT EXCEEDS	4.4		3.3		4.7	
90 PERCENT EXCEEDS	1.5		1.6		1.1	

a From rating curve extended above 500 ft^3/s on basis of slope-area measurement of peak flow.
e Estimated.

01405030 LAWRENCE BROOK AT WESTONS MILLS, NJ

LOCATION.--Lat 40°28'59", long 74°24'45", Middlesex County, Hydrologic Unit 02030105, on left bank at dam on Westons Mill Pond at Westons Mills, 200 ft downstream from bridge on State Route 18, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--44.9 mi^2.

PERIOD OF RECORD.--December 1988 to current year. Water-quality records water years 1976-81.

REVISED RECORDS.--WDR NJ-89-1: Drainage area.

GAGE.--Water-stage recorder above masonry dam. Datum of gage is sea level.

REMARKS.--Records poor. Records given herein include flow over dam and through bypass gates. No gate openings were reported. Flow regulated by Farrington Lake, capacity, 655,250,000 gal. Diversion at gage by New Brunswick Water Department (records given herein). Several measurements of water temperature were made during the year.

COOPERATION.--Water-stage recorder inspected by and records of gate openings and diversions provided by employees of City of New Brunswick.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	4.9	21	22	e13	20	38	19	112	3.7	277	8.3
2	5.1	5.3	e51	e12	e12	17	34	22	43	2.7	53	5.3
3	16	5.8	268	e10	e11	19	27	18	25	5.2	25	7.4
4	18	7.0	193	81	e11	19	22	15	18	37	16	15
5	28	8.8	e73	59	e11	17	21	15	254	16	12	16
6	43	8.1	50	29	e11	16	19	11	491	23	9.0	13
7	31	6.5	53	23	e11	48	18	14	106	11	7.0	14
8	16	6.2	50	15	e13	57	18	43	58	8.1	5.9	15
9	6.6	6.3	60	14	e15	34	18	80	39	108	18	13
10	4.2	12	88	15	e13	32	19	62	28	30	15	32
11	7.2	11	45	16	e11	93	116	45	20	15	96	60
12	13	17	29	16	e12	51	58	29	18	11	137	23
13	5.3	15	28	18	e11	33	35	23	14	11	32	13
14	4.2	13	37	38	e11	27	28	21	14	15	48	11
15	6.9	8.8	33	e28	e16	22	24	17	11	39	33	9.8
16	6.6	15	26	e25	e80	19	28	51	9.0	76	53	9.8
17	35	19	20	27	e44	19	59	33	11	22	60	8.6
18	43	e8.1	e18	34	e23	17	110	23	10	19	108	8.6
19	23	e8.1	e15	27	e23	44	84	16	159	15	46	9.5
20	17	e8.1	e15	16	e18	52	55	14	201	12	27	8.3
21	6.5	12	9.0	12	e23	44	45	10	50	11	19	5.5
22	8.6	72	12	9.6	e20	43	45	10	25	13	16	12
23	7.9	59	e15	71	e18	53	39	12	17	60	15	47
24	5.9	26	e15	84	e15	47	52	13	15	47	13	15
25	5.0	e18	13	42	18	42	66	13	13	19	12	12
26	11	e14	13	34	58	57	27	11	11	15	30	99
27	e10	e11	e11	28	41	221	27	10	9.8	67	40	62
28	e8.0	8.3	10	e18	30	88	24	11	9.6	33	32	48
29	e8.0	e11	45	e16	25	52	17	11	8.4	18	23	21
30	e8.0	12	55	e15	---	37	22	11	6.1	13	13	12
31	3.0	---	28	e14	---	47	---	126	---	132	11	---
TOTAL	415.4	437.3	1399.0	868.6	618	1387	1195	809	1805.9	907.7	1301.9	634.1
MEAN	13.4	14.6	45.1	28.0	21.3	44.7	39.8	26.1	60.2	29.3	42.0	21.1
MAX	43	72	268	84	80	221	116	126	491	132	277	99
MIN	3.0	4.9	9.0	9.6	11	16	17	10	6.1	2.7	5.9	5.3
(†)	2.36	1.41	.97	1.43	.53	.24	.29	.38	.57	.50	.10	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

MEAN	43.2	30.4	41.0	55.0	43.2	63.9	65.6	86.7	58.8	47.3	55.6	60.7
MAX	89.4	49.1	62.5	82.1	62.6	95.0	89.3	169	98.9	92.7	103	184
(WY)	1990	1990	1991	1991	1990	1991	1990	1989	1989	1989	1990	1989
MIN	13.4	14.6	15.3	28.0	21.3	44.7	39.8	26.1	23.8	29.3	28.7	17.0
(WY)	1992	1992	1990	1992	1992	1992	1992	1992	1991	1992	1989	1991

01405030 LAWRENCE BROOK AT WESTONS MILLS, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1989 - 1992	
ANNUAL TOTAL	15486.32		11778.9			
ANNUAL MEAN	42.4		32.2		47.3	
(†)	2.08		.75		---	
HIGHEST ANNUAL MEAN					63.5	1990
LOWEST ANNUAL MEAN					32.2	1992
HIGHEST DAILY MEAN	744	Mar 4	491	Jun 6	2200	Sep 21 1989
LOWEST DAILY MEAN	.12	Sep 11	2.7	Jul 2	.12	Sep 11 1991
ANNUAL SEVEN-DAY MINIMUM	3.9	Sep 8	6.0	Oct 29	1.2	Sep 7 1989
INSTANTANEOUS PEAK FLOW			850	Jun 5	4850a	Sep 21 1989
INSTANTANEOUS PEAK STAGE			16.79	Jun 5	19.20	Sep 21 1989
INSTANTANEOUS LOW FLOW			.00	Oct 31	.00	Sep 29 1989
10 PERCENT EXCEEDS	86		60		102	
50 PERCENT EXCEEDS	26		18		32	
90 PERCENT EXCEEDS	6.2		8.1		8.4	

a From rating curve extended above 1,000 ft^3/s.
e Estimated.
† Diversion, in cubic feet per second, by City of New Brunswick for municipal supply.

01405302 MATCHAPONIX BROOK AT MUNDY AVENUE AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'22", long 74°22'55", Middlesex County, Hydrologic Unit 02030105, at bridge on Mundy Avenue in Spotswood, 0.2 mi upstream from mouth, 0.5 mi east of De Voe Lake dam, and 3.4 mi southeast of Tanners Corners.

DRAINAGE AREA.--44.1 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
17...	1030	40	276	6.8	13.0	8.0	76	E1.5	80	17
FEB 1992										
13...	1200	31	359	7.4	1.0	12.4	88	--	<20	<10
MAR										
31...	1330	47	262	5.8	8.5	10.2	87	<1.0	<20	<10
JUN										
03...	1300	40	250	6.4	16.0	9.0	91	<1.0	20	230
JUL										
30...	1100	18	353	7.2	20.5	7.2	80	<1.1	170	1040

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
17...	68	21	3.8	20	4.7	11	54	30	0.2
FEB 1992									
13...	83	27	3.9	23	4.1	18	58	39	0.2
MAR									
31...	61	18	3.8	18	2.5	--	51	31	0.2
JUN									
03...	61	19	3.3	15	3.3	7.2	50	24	0.1
JUL									
30...	84	27	4.0	27	6.2	9.5	60	36	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
17...	11	177	0.008	0.007	5.88	5.84	0.18	0.10	0.48
FEB 1992									
13...	11	206	0.006	0.007	6.45	6.40	0.22	0.19	0.26
MAR									
31...	9.9	--	0.007	0.006	3.55	3.54	0.13	0.16	0.19
JUN									
03...	8.9	143	0.013	0.015	3.50	3.45	0.12	0.09	0.64
JUL									
30...	10	213	0.010	0.010	8.58	8.34	0.07	0.05	<0.03

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
17...	0.39	6.4	6.2	<0.02	<0.02	2.6	0.2	2	0.22
FEB 1992									
13...	<0.03	6.7	--	0.04	<0.02	2.2	0.4	4	0.33
MAR									
31...	0.15	3.7	3.7	0.05	<0.02	2.1	0.5	7	0.89
JUN									
03...	0.64	4.1	4.1	<0.02	<0.02	3.0	0.3	2	0.22
JUL									
30...	<0.03	--	--	0.02	<0.02	4.7	0.4	1	0.05

01405302 MATCHAPONIX BROOK AT MUNDY AVENUE AT SPOTSWOOD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 1991 17...	1030	10	<1	<10	90	<1	1	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 1991 17...	120	6	170	<0.10	9	<1	20

01405340 MANALAPAN BROOK AT FEDERAL ROAD NEAR MANALAPAN, NJ

LOCATION.--Lat 40°17'46", long 74°23'53", 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 of Still House Brook, and 4.1 mi northeast of Applegarth.

DRAINAGE AREA.--20.9 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
31...	1030	10	126	6.4	10.0	9.6	85	2.8	20	17
FEB 1992										
13...	1000	30	149	7.9	0.0	15.1	104	--	20	<10
MAR										
31...	1000	25	135	6.3	7.0	10.7	90	E1.2	<20	<10
JUN										
03...	0930	15	136	6.6	16.0	8.9	90	E1.4	170	260
JUL										
28...	1130	10	144	7.3	20.5	7.9	89	<1.0	70	410

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
31...	40	9.4	3.9	10	3.5	13	21	20	0.3
FEB 1992									
13...	38	8.9	3.8	8.1	2.5	6.1	26	18	0.2
MAR									
31...	34	8.0	3.3	7.9	2.1	3.1	29	18	0.3
JUN									
03...	32	7.8	3.1	6.7	2.4	5.4	22	14	0.2
JUL									
28...	44	12	3.3	7.2	2.5	11	19	17	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
31...	11	89	0.006	0.007	0.43	0.53	<0.03	<0.03	0.20
FEB 1992									
13...	11	88	0.008	0.008	1.29	1.26	0.09	0.11	0.20
MAR									
31...	9.7	84	0.006	0.007	0.83	0.78	0.05	0.08	0.20
JUN									
03...	10	70	--	--	--	--	0.06	0.07	<0.03
JUL									
28...	9.1	80	0.010	0.009	0.66	0.67	0.06	0.04	0.14

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
31...	0.29	0.63	0.82	0.07	0.14	2.6	0.4	7	0.19
FEB 1992									
13...	0.22	1.5	1.5	0.05	0.02	1.3	0.4	8	0.65
MAR									
31...	0.27	1.0	1.0	0.06	<0.02	2.0	0.7	13	0.88
JUN									
03...	<0.03	--	--	0.08	0.03	3.4	0.7	12	0.49
JUL									
28...	0.10	0.80	0.77	0.10	0.06	5.0	0.3	8	0.22

01405340 MANALAPAN BROOK AT FEDERAL ROAD NEAR MANALAPAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
OCT 1991											
31...	1030	--	11	24	19	1500	2800	0.7	25	--	21
31...	1030	17	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991										
31...	--	--	--	1	--	20	<5	--	20	--
31...	<10	50	<1	--	<1	--	--	1	--	1600

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991										
31...	47000	--	20	--	190	--	0.04	--	10	--
31...	--	<1	--	110	--	<0.10	--	4	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
31...	<1	--	70	14	<1.0	<0.1	8.0	10	8.6	1.3
31...	--	10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
31...	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<10	<0.1	<1.00	<10
31...	--	--	--	--	--	--	--	--	--	--

01405400 MANALAPAN BROOK AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'22", long 74°23'27", Middlesex County, Hydrologic Unit 02030105, on right bank of DeVoe Lake Dam in Spotswood, 0.1 mi upstream from Cedar Brook, and 0.6 mi upstream from confluence with Matchaponix Brook.

DRAINAGE AREA.--40.7 mi^2.

PERIOD OF RECORD.--January 1957 to current year.

REVISED RECORDS.--WSP 1722: 1957-60.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is sea level (levels by Duhernal Water System). January 1957 to September 1966 at datum 17.72 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Discharge given herein includes flow through sluice gate when open. Gate open Dec. 23 to Mar. 16 and June 20, 21. Some regulation by Lake Manalapan, Helmetta Pond, and DeVoe Lake. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	34	39	8.2	e30	e39	46	27	103	35	58	17
2	21	37	45	7.1	e30	e38	44	27	64	19	68	16
3	21	37	140	6.5	e30	e38	43	26	38	15	57	15
4	21	36	235	32	e30	e38	38	25	28	44	16	16
5	21	36	146	115	e30	e38	35	25	51	23	15	14
6	23	35	64	e60	e30	e38	32	23	252	31	12	14
7	22	34	50	e20	e30	e38	31	23	293	16	9.9	14
8	20	34	44	e20	e30	e20	31	29	77	15	9.9	14
9	19	34	41	e20	e29	e7.0	31	57	48	59	20	14
10	19	35	72	e25	e29	e20	31	54	35	29	19	21
11	19	43	67	e29	e29	e20	36	47	29	27	20	35
12	24	49	53	e29	e29	e37	36	38	25	27	40	25
13	22	44	45	e29	e30	e41	32	32	22	26	37	18
14	20	40	46	e29	e30	e32	29	29	19	19	62	17
15	20	38	44	e29	e30	e20	30	26	17	18	28	17
16	24	36	35	e29	e7.5	e23	127	36	17	27	26	16
17	38	35	35	e29	e44	23	25	58	16	36	36	15
18	88	34	37	e29	e49	25	28	44	14	34	133	16
19	60	34	31	e29	e30	33	35	33	23	29	160	17
20	42	35	29	e29	e30	60	47	27	e221	19	44	16
21	35	35	30	e29	e30	65	42	24	e615	19	38	15
22	32	58	31	e29	e30	53	39	22	168	20	36	16
23	31	103	e26	e29	e18	48	37	20	57	31	35	21
24	31	69	e40	e30	e.00	45	34	18	68	37	33	16
25	34	51	e40	e48	e16	45	33	18	56	36	18	16
26	37	43	e40	e49	e39	48	31	18	19	38	17	48
27	39	40	e40	e34	e46	124	31	19	18	51	20	50
28	38	38	e39	e30	e40	115	30	19	23	41	27	48
29	36	36	e39	e29	e39	61	28	18	35	20	38	43
30	36	36	e6.3	e29	---	47	27	17	38	18	28	40
31	34	---	6.3	e29	---	44	---	39	---	23	18	---
TOTAL	950	1249	1635.6	968.8	864.50	1323.0	1119	918	2489	882	1178.8	660
MEAN	30.6	41.6	52.8	31.3	29.8	42.7	37.3	29.6	83.0	28.5	38.0	22.0
MAX	88	103	235	115	49	124	127	58	615	59	160	50
MIN	19	34	6.3	6.5	.00	7.0	25	17	14	15	9.9	14
CFSM	.75	1.02	1.30	.77	.73	1.05	.92	.73	2.04	.70	.93	.54
IN.	.87	1.14	1.49	.89	.79	1.21	1.02	.84	2.27	.81	1.08	.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

MEAN	41.3	58.9	74.5	77.6	81.3	91.0	86.2	69.2	48.0	45.5	44.8	41.9
MAX	95.2	154	156	186	139	164	154	148	109	141	128	137
(WY)	1990	1978	1984	1978	1979	1958	1983	1984	1968	1975	1990	1989
MIN	13.7	21.7	27.4	21.1	29.8	37.0	31.1	26.5	17.4	4.40	5.56	11.6
(WY)	1983	1966	1981	1981	1992	1985	1985	1977	1966	1966	1966	1965

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1957 - 1992	
ANNUAL TOTAL	19731.21		14237.70			
ANNUAL MEAN	54.1		38.9		63.6	
HIGHEST ANNUAL MEAN					101	1973
LOWEST ANNUAL MEAN					34.3	1981
HIGHEST DAILY MEAN	383	Jan 13	615	Jun 21	1390	May 30 1968
LOWEST DAILY MEAN	.00	Sep 11	.00	Feb 24	.00	Jun 16 1957
ANNUAL SEVEN-DAY MINIMUM	5.9	Sep 11	14	Sep 3	2.0	Jul 22 1966
INSTANTANEOUS PEAK FLOW			773a	Jun 21	1700a	Sep 20 1989
INSTANTANEOUS PEAK STAGE			19.13	Jun 21	20.50	Sep 20 1989
INSTANTANEOUS LOW FLOW			.00	Feb 24	.00	Many days
ANNUAL RUNOFF (CFSM)	1.33		.96		1.56	
ANNUAL RUNOFF (INCHES)	18.03		13.01		21.25	
10 PERCENT EXCEEDS	105		57		120	
50 PERCENT EXCEEDS	40		31		46	
90 PERCENT EXCEEDS	18		17		19	

a Sluice gate open.
e Estimated.

RESERVOIRS IN RARITAN RIVER BASIN

01396790 SPRUCE RUN RESERVOIR.--Lat 40°38'37", long 74°55'26", Hunterdon County, Hydrologic Unit 02030105, at dam on Spruce Run, 0.5 mi north of Clinton, and 0.6 mi upstream from mouth. DRAINAGE AREA, 41.3 mi^2. PERIOD OF RECORD, November 1963 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway; dam completed in October 1963 with crest of spillway at elevation 273.00 ft. Usable capacity, 11,000,000,000 gal. Dead storage 300,000 gal. Reservoir used for water supply and recreation. Outflow mostly regulated by gates. Water is released to maintain minimum flow on the South Branch Raritan River and, at times, for municipal supply. Records given herein represent usable capacity.

COOPERATION.--Records provided by New Jersey Water Supply Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 11,820,000,000 gal, Jan. 24, 1979, elevation, 274.72 ft; minimum observed, 3,100,000,000 gal, Oct. 18, 1983, elevation, 246.68 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 10,270,000,000 gal, Aug. 21, elevation, 271.31 ft; minimum observed, 5,350,000,000 gal, Nov. 21, elevation, 256.34 ft.

REVISED RECORDS.--WDR NJ-84-1: (M). WDR NJ-85-1: 1984.

01397050 ROUND VALLEY RESERVOIR.--Lat 40°36'39", long 74°50'42", Hunterdon County, Hydrologic Unit 02030105, at main dam on Prescott Brook, 1.8 mi south of Lebanon, 3.2 mi upstream from mouth, and 4.5 mi west of Whitehouse. DRAINAGE AREA, 5.7 mi^2. PERIOD OF RECORD, March 1966 to current year. Nonrecording gage read daily. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthfill dam at main dam on Prescott Brook and two dams on South Branch Rockaway River at Lebanon; storage began in March 1966. Capacity at spillway level, 55,000,000,000 gal, elevation, 385.00 ft. Reservoir is used primarily for storage and is filled by pumping from South Branch Raritan River at Hamden Pumping Station (see following page). Outflow is controlled by operation of gates in pipe in dams. Water is released into South Branch Rockaway Creek and Prescott Brook.

COOPERATION.--Records provided by New Jersey Water Supply Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,400,000,000 gal, June 15, 1975, elevation, 385.63 ft; minimum observed (after first filling), 37,100,000,000 gal, Feb. 9, 1981, elevation, 361.30 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 52,140,000,000 gal, July 27, elevation, 381.47 ft; minimum observed, 50,910,000,000 gal, Feb. 15, elevation, 379.51 ft.

REVISED RECORDS.--WDR NJ-85-1: 1984.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)*	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)*	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01396790 SPRUCE RUN RESERVOIR			01397050 ROUND VALLEY RESERVOIR		
Sept. 30.....	260.08	6,370	--	380.95	51,850	--
Oct. 31.....	257.69	5,750	-29.9	380.55	51,630	-11.0
Nov. 30.....	257.14	5,590	-8.3	379.61	50,960	-34.6
Dec. 31.....	258.80	6,020	+21.5	379.67	50,990	+1.5
CAL YR 1991....			-21.5			-.9
Jan. 31.....	259.34	6,160	+7.0	379.62	50,960	-1.5
Feb. 29.....	258.47	5,940	-11.7	379.63	50,970	+.5
Mar. 31.....	262.65	7,140	+59.9	379.82	51,060	+4.5
Apr. 30.....	264.97	7,940	+41.3	379.54	51,620	+28.9
May 31.....	265.91	8,220	+14.0	381.03	51,920	+15.0
June 30.....	269.69	9,640	+73.2	381.27	52,040	+6.2
July 31.....	270.85	10,100	+23.0	381.42	52,110	+3.5
Aug. 31.....	270.96	10,140	+2.0	381.36	52,080	-1.5
Sept. 30.....	269.42	9,530	-31.5	381.26	52,030	-2.6
WTR YR 1992....	-	-	+13.4	-	-	+.7

* Elevation at 0800 on first day of following month.

DIVERSIONS IN RARITAN RIVER BASIN

01396920 Water is diverted 4.0 mi upstream from the gaging station on South Branch Raritan River at Stanton (see station 01397000), at the Hamden Pumping Station, for storage in Round Valley Reservoir. Water can also be released from Round Valley Reservoir into the South Branch Raritan River at Hamden and are noted as negative discharge. Records provided by New Jersey Water Supply Authority.
REVISED RECORDS.--WDR NJ-85-1: 1984.

01400509 Elizabethtown Water Company diverts water from the Raritan and Millstone Rivers just upstream from the mouth of the Millstone River at Manville. Records given herein represent the total diversion from both rivers. Records provided by the Elizabethtown Water Company.
REVISION.--The mean diversion for water year 1991 has been revised to 146 ft^3/s superceding the figure published in WDR NJ-91-1.

01400836 Water is diverted from Carnegie Lake (Millstone River) at Princeton to the Delaware and Raritan Canal at the aqueduct 4.1 mi downstream from the gaging station on the Delaware and Raritan Canal at Port Mercer (station 01460440). Negative discharge indicates flow from Canal to Carnegie Lake. Records provided by New Jersey Water Supply Authority.
REVISED RECORDS.--WDR NJ-85-1: 1984.

01402910 Water is diverted from the Raritan River just below the Millstone River to the Delaware and Raritan Canal at Ten Mile Lock for municipal supply. Negative discharge indicates flow from Canal to Millstone River. Records provided by the New Jersey Water Supply Authority.
REVISED RECORDS.--WDR NJ-85-1: 1984.

01460570 Elizabethtown Water Company diverts water from the Delaware and Raritan Canal 1200 ft downstream from Ten Mile Lock at Manville for municipal supply. Records provided by the Elizabethtown Water Company.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	01396920 HAMDEN PUMPING STATION	01400509 RARITAN AND MILLSTONE RIVERS	01400836 CARNEGIE LAKE	01402910 TEN MILE LOCK DIVERSION	01460570 DELAWARE AND RARITAN CANAL
October	-5.3	146	0	0	13.0
November	-29.4	141	0	0	11.6
December	0	143	0	-10.7	8.4
CAL YR 1991	-2.9	150	-.1	-10.4	16.3
January	0	149	0	-11.4	9.8
February	0	153	0	-.8	10.6
March	0	151	0	0	9.8
April	24.3	155	0	0	6.9
May	12.7	156	0	0	18.9
June	0	154	0	0	30.2
July	0	146	0	0	33.4
August	0	136	0	-.6	30.6
September	0	127	0	-2.2	32.8
WTR YR 1992	0.2	146	0	-2.1	18.0

01407500 SWIMMING RIVER NEAR RED BANK, NJ

LOCATION.--Lat 40°19'10", long 74°06'55", Monmouth County, Hydrologic Unit 02030104, on left bank 50 ft upstream from spillway at Swimming River Reservoir, 3.3 mi southwest of Red Bank, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--49.2 mi^2.

PERIOD OF RECORD.--August 1922 to current year.

REVISED RECORDS.--WSP 891: 1939. WDR NJ-83-1: Drainage area. WDR NJ-90-1: 1989.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 30.00 ft above sea level. Prior to Jan. 19, 1962, at site 800 ft upstream at datum 17.67 ft lower. Jan. 19 to Mar. 30, 1962, nonrecording gage, 700 ft upstream at datum 13.87 ft lower.

REMARKS.--Records fair except for estimated daily discharges and those below 10 ft^3/s, which are poor. Records given herein represent flow over spillway and flow or leakage through blowoff gates. Diversion above station for municipal supply. Flow regulated by Swimming River Reservoir. Several measurements of water temperature were made during the year.

COOPERATION.--Water-stage recorder inspected by and record of diversion furnished by New Jersey-American Water Co.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in July 1919 reached a stage of 7.84 ft (site and datum then in use), from floodmark, discharge about 11,800 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	17	6.2	e21	e32	3.4	26	4.5	42	1.1
2	.00	.00	.00	15	5.3	e17	e31	3.7	33	2.5	24	.35
3	.00	.00	3.0	13	4.6	e13	e26	3.2	25	1.5	15	.22
4	.00	.00	93	48	4.3	e9.7	e18	2.5	17	7.1	11	.20
5	.00	.00	49	87	4.3	e7.4	e16	2.2	72	8.7	9.3	.07
6	.00	.00	33	40	3.8	e5.1	e15	2.2	274	7.2	6.3	.00
7	.00	.00	28	29	3.5	e18	e12	2.1	59	5.5	3.7	.00
8	.00	.00	23	23	3.6	e29	e14	5.1	35	3.8	2.0	.00
9	.00	.00	20	19	3.9	e23	e13	52	29	14	2.0	.00
10	.00	.00	50	13	2.6	e21	12	54	22	17	3.3	.02
11	.00	.00	43	12	2.2	e47	13	43	17	12	4.4	.38
12	.00	.00	31	9.8	1.9	e36	13	30	12	7.2	21	.43
13	.00	.00	27	8.8	1.4	e23	9.9	26	8.5	5.4	17	.28
14	.00	.00	28	11	1.8	e18	8.4	23	5.5	4.0	20	.13
15	.00	.00	19	9.3	2.5	e13	7.4	17	3.1	2.8	22	.03
16	.00	.00	14	7.7	14	e8.5	7.1	26	1.6	3.9	108	.00
17	.00	.00	11	5.1	19	e5.8	14	35	.81	3.4	200	.00
18	.00	.00	10	3.9	20	e7.9	39	29	.26	2.9	752	.00
19	.00	.00	8.2	2.2	22	e33	40	23	98	2.1	122	.00
20	.00	.00	7.2	1.4	21	e59	33	18	556	1.2	50	.00
21	.00	.00	6.7	1.0	18	e38	28	14	75	.59	32	.00
22	.00	.00	6.3	.84	15	e31	26	9.5	35	.25	26	.00
23	.00	.00	5.7	1.5	13	e34	25	5.9	29	.66	22	.00
24	.00	.00	5.4	14	11	e32	20	3.3	27	3.5	17	.00
25	.00	.00	4.8	14	e8.8	e28	18	2.3	26	3.3	15	.00
26	.00	.00	4.4	12	e35	e33	17	1.8	21	2.7	12	2.7
27	.00	.00	3.8	9.3	e31	e72	14	2.2	17	4.1	11	7.5
28	.00	.00	2.9	8.6	e27	e66	8.5	1.5	14	4.2	9.5	8.2
29	.00	.00	6.7	7.7	e24	e49	7.1	.70	9.4	2.9	6.9	7.6
30	.00	.00	21	7.2	---	e33	4.8	.40	6.1	1.6	3.9	5.7
31	.00	---	22	6.5	---	e36	---	3.9	---	4.2	2.2	---
TOTAL	0.00	0.00	587.10	457.84	330.7	867.4	542.2	445.90	1554.27	144.70	1592.5	34.91
MEAN	.000	.000	18.9	14.8	11.4	28.0	18.1	14.4	51.8	4.67	51.4	1.16
MAX	.00	.00	93	87	35	72	40	54	556	17	752	8.2
MIN	.00	.00	.00	.84	1.4	5.1	4.8	.40	.26	.25	2.0	.00
(†)	38.3	40.0	47.6	37.9	37.8	37.0	34.1	37.6	36.2	36.8	32.4	38.3
MEAN*	38.3	40.0	66.5	56.2	49.2	65.0	52.3	52.0	88.0	41.5	83.8	39.5

STATISTICS OF MONTHLY MEAN (UNADJUSTED) DATA FOR WATER YEARS 1924 - 1992, BY WATER YEAR (WY)

MEAN	40.4	56.9	68.2	78.5	91.7	101	92.6	70.8	49.2	42.2	39.4	39.0
MAX	163	208	196	248	201	184	209	183	135	187	128	210
(WY)	1944	1973	1978	1978	1979	1984	1980	1984	1972	1938	1955	1938
MIN	.000	.000	.000	.000	1.19	18.1	2.93	4.07	.000	.000	.000	.000
(WY)	1971	1981	1981	1981	1989	1985	1962	1985	1985	1966	1957	1980

01407500 SWIMMING RIVER NEAR RED BANK, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1924 - 1992	
ANNUAL TOTAL	11700.89		6557.52			
ANNUAL MEAN	32.1	Unadjusted	17.9	Unadjusted	64.0	Unadjusted
ANNUAL MEAN*	73.9		54.7		80.6	
HIGHEST ANNUAL MEAN					123	1928
LOWEST ANNUAL MEAN					9.76	1985
HIGHEST DAILY MEAN	959	Mar 4	752	Aug 18	3050	Oct 27 1943
LOWEST DAILY MEAN	.00	Jun 17	.00	Many days	.00	Apr 29 1925
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 22	.00	Oct 1	.00	Jul 16 1955
INSTANTANEOUS PEAK FLOW			1320	Aug 18	8910a	Oct 27 1943
INSTANTANEOUS PEAK STAGE			6.02	Aug 18	8.96	Oct 27 1943
INSTANTANEOUS LOW FLOW			.00	Many days	.00	Many days
ANNUAL RUNOFF (CFSM)*	1.50		1.11		1.64	
ANNUAL RUNOFF (INCHES)	8.85	Unadjusted	4.96	Unadjusted	17.67	Unadjusted
ANNUAL RUNOFF (INCHES)*	--		15.09		22.56	
10 PERCENT EXCEEDS	78		34		122	
50 PERCENT EXCEEDS	3.5		7.1		46	
90 PERCENT EXCEEDS	.00		.00		.70	

a From rating curve extended above 1,000 ft^3/s on basis of weir formula, site and datum then in use.
† Diversion and change in contents, in cubic feet per second, from Swimming River Reservoir.
* Adjusted for diversion and change in contents.
e Estimated.

01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°11'56", long 74°04'14", Monmouth County, Hydrologic Unit 02030104, on left bank 100 ft upstream from bridge on Remsen Mill Road, 0.3 mi downstream from Robins Swamp Brook, and 1.7 mi west of Neptune City.

DRAINAGE AREA.--9.96 mi^2.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 7.05 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Diversion above station by New Jersey-American Water Co. for municipal supply (records given herein) and by farmers for irrigation. Subsequent to November 1962, entire flow from 0.34 mi^2 of drainage area controlled by Glendola Reservoir (capacity 1,000 million gal) on Robins Swamp Brook, 0.6 mi southwest of gage. Water pumped into Glendola Reservoir from Manasquan River or Reservoir subsequent to July 1990 (see station 01408029). Several measurements of water temperature were made during the year.

COOPERATION.--Water-stage recorder inspected by and records of diversion provided by New Jersey-American Water Co.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	2.3	5.4	12	13	11	12	2.6	22	4.7	37	3.9
2	4.9	2.4	7.9	12	12	11	17	3.0	12	5.4	12	3.7
3	4.6	2.5	56	11	11	11	12	2.8	6.9	7.8	9.9	5.1
4	4.6	2.1	48	25	12	10	11	2.8	2.5	17	9.1	4.5
5	7.2	3.8	16	21	12	10	9.4	3.5	23	9.6	8.6	4.1
6	9.8	5.9	10	15	11	11	9.3	5.7	35	8.1	8.1	5.7
7	6.1	6.1	8.1	13	9.4	18	8.4	4.0	17	5.1	6.8	6.1
8	5.3	4.4	7.2	12	12	16	7.8	30	11	6.9	2.4	6.2
9	4.9	1.4	8.2	12	13	11	7.1	40	11	19	5.2	5.8
10	4.2	6.3	31	12	11	7.6	7.8	30	11	5.7	3.5	12
11	4.8	36	18	11	7.9	28	3.8	23	2.8	2.9	9.7	13
12	6.5	16	14	11	6.5	14	3.1	13	2.2	2.6	12	5.0
13	5.8	12	9.6	11	4.7	8.6	2.8	6.0	1.6	5.1	6.0	4.0
14	5.7	11	6.4	13	7.2	6.0	3.3	4.9	2.1	4.5	12	3.9
15	6.1	9.7	5.9	11	12	5.6	2.6	3.7	12	10	9.5	3.9
16	7.3	9.6	5.7	9.6	28	5.0	5.7	20	6.0	12	56	3.8
17	21	9.5	4.2	10	14	4.3	19	18	7.0	3.6	84	4.6
18	18	10	4.0	10	13	9.5	24	10	6.0	3.5	473	5.0
19	5.3	9.1	3.0	9.9	11	29	17	6.1	32	4.2	41	4.9
20	3.6	8.9	2.9	9.5	8.3	19	6.3	4.8	56	7.1	21	5.0
21	3.1	8.9	3.1	9.8	7.3	16	7.2	3.8	19	6.8	13	5.0
22	3.0	12	3.5	9.8	6.6	15	8.1	3.8	12	6.9	10	5.4
23	2.7	24	3.7	17	6.5	13	4.6	2.2	10	14	8.2	9.2
24	2.6	13	8.3	27	6.2	8.6	4.8	4.2	18	11	7.0	5.6
25	4.1	10	9.3	17	7.3	9.3	3.6	2.8	13	4.2	6.5	16
26	5.0	9.6	9.6	14	24	13	3.2	4.6	5.2	3.0	6.2	73
27	5.0	7.1	9.6	13	16	34	3.2	2.9	4.5	3.0	5.9	21
28	5.7	4.5	9.6	13	13	18	3.1	5.0	5.0	3.5	5.8	13
29	5.0	4.4	28	13	12	14	2.9	2.1	3.7	6.9	5.4	9.2
30	5.0	4.2	21	13	---	9.0	2.7	3.4	4.7	6.9	4.8	7.7
31	3.4	---	14	13	---	16	---	25	---	58	4.4	---
TOTAL	185.3	266.7	391.2	410.6	327.9	411.5	232.8	293.7	374.2	269.0	904.0	275.3
MEAN	5.98	8.89	12.6	13.2	11.3	13.3	7.76	9.47	12.5	8.68	29.2	9.18
MAX	21	36	56	27	28	34	24	40	56	58	473	73
MIN	2.6	1.4	2.9	9.5	4.7	4.3	2.6	2.1	1.6	2.6	2.4	3.7
(†)	5.3	3.4	5.6	0	3.6	4.1	6.4	6.8	4.8	5.3	5.8	5.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	10.4	13.6	17.2	17.0	15.5	21.1	20.4	17.4	9.83	10.5	11.6	8.88
MAX	34.0	31.7	44.2	41.1	32.9	50.2	48.3	46.8	21.9	30.1	29.2	22.6
(WY)	1990	1978	1970	1978	1979	1984	1983	1989	1975	1984	1992	1989
MIN	2.81	1.73	4.11	3.57	3.79	6.53	6.39	3.51	2.13	3.47	3.47	1.28
(WY)	1982	1982	1981	1981	1974	1986	1985	1986	1986	1985	1988	1988

01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	4616.26		4328.5			
ANNUAL MEAN	12.6		11.8		14.5	
(†)	6.0		4.8		---	
HIGHEST ANNUAL MEAN					24.9	1984
LOWEST ANNUAL MEAN					6.80	1981
HIGHEST DAILY MEAN	349	Jan 12	472	Aug 18	560	Dec 26 1969
LOWEST DAILY MEAN	.25	Sep 12	1.4	Nov 9	.00	Sep 20 1981
ANNUAL SEVEN-DAY MINIMUM	1.1	Sep 7	2.8	Apr 28	.70	Sep 26 1988
INSTANTANEOUS PEAK FLOW			1170	Aug 18	1170	Aug 18 1992
INSTANTANEOUS PEAK STAGE			6.59	Aug 18	6.59	Aug 18 1992
INSTANTANEOUS LOW FLOW			.00a	Sep 19	.00	Many days
10 PERCENT EXCEEDS	24		20		28	
50 PERCENT EXCEEDS	7.3		8.0		8.3	
90 PERCENT EXCEEDS	1.9		3.2		2.6	

a No flow was also observed on July 7.
† Diversion, equivalent in cubic feet per second, from Shark River by New Jersey-American Water Company, for municipal supply.

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°12'13", long 74°03'58", Monmouth County, Hydrologic Unit 02030104, on left bank 60 ft downstream from dam on Jumping Brook Reservoir, 0.8 mi upstream from mouth, and 1.4 mi west of Neptune City. Water-quality samples collected at bridge on Corlies Avenue, 600 ft downstream from gaging station.

DRAINAGE AREA.--6.46 mi^2.

PERIOD OF RECORD.--October 1966 to current year. Records for water years 1976-83 are unpublished but are available in the files of New Jersey District Office.

REVISED RECORDS.--WDR-84-1: drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 13.76 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except those above 300 ft^3/s, which are fair. Diversion above station by New Jersey-American Water Co. for municipal supply (records given herein) and by farmers for irrigation. Several measurements of water temperature, other than those published, were made during the year.

COOPERATION.--Water-stage recorder inspected by and records of diversion provided by New Jersey-American Water Co.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.0	3.2	3.6	4.4	2.9	5.2	2.5	15	1.6	30	2.6
2	2.9	2.1	5.4	3.3	2.6	2.8	7.0	3.0	13	1.1	4.9	2.0
3	2.6	2.1	40	3.3	2.5	2.8	4.3	2.8	4.9	1.4	3.1	3.1
4	2.6	2.1	26	12	2.6	2.7	3.9	2.6	3.6	9.4	2.5	2.6
5	4.2	2.0	6.8	8.3	2.6	2.6	5.3	2.6	25	3.6	2.0	2.4
6	7.4	1.9	5.0	4.5	2.4	2.6	3.1	2.3	31	2.4	1.3	2.4
7	3.5	1.9	4.2	3.7	2.5	8.2	3.0	2.0	8.5	1.5	1.1	2.4
8	2.8	2.0	3.7	3.3	3.1	5.6	2.9	20	5.8	1.4	1.4	2.4
9	2.6	2.0	3.7	3.3	3.0	3.6	2.9	26	4.6	14	3.6	1.9
10	2.3	5.5	19	3.5	4.3	3.8	2.9	16	3.8	3.6	3.6	8.2
11	2.4	24	6.2	3.2	2.4	20	3.0	10	3.2	2.3	6.7	11
12	3.7	6.8	4.3	3.0	2.4	6.3	3.1	5.4	2.7	2.0	9.0	3.8
13	3.0	3.9	3.9	2.9	2.3	4.1	2.8	4.5	2.7	1.9	3.1	2.6
14	2.5	3.0	4.2	4.6	2.8	3.4	2.6	4.0	2.6	1.7	7.7	2.4
15	2.7	2.8	3.7	3.4	6.0	3.1	2.3	3.5	2.1	4.9	8.3	2.3
16	3.1	2.6	3.2	2.9	17	2.9	4.6	13	2.0	8.3	47	2.3
17	18	2.4	3.0	3.0	5.4	2.9	9.2	7.6	1.9	2.7	81	2.0
18	20	2.3	3.0	2.6	5.1	2.9	11	4.8	1.8	2.0	288	2.5
19	5.5	2.3	2.6	2.4	5.1	19	9.2	3.7	23	1.6	27	2.5
20	3.8	2.1	2.6	2.3	3.8	9.7	4.6	3.2	36	1.4	14	2.3
21	3.3	2.4	2.9	2.4	3.2	5.8	3.8	3.0	7.1	.89	9.4	2.0
22	2.8	5.2	2.8	2.4	3.0	4.6	3.9	2.4	4.7	.83	5.5	2.0
23	2.4	13	2.8	7.6	2.9	7.9	3.5	2.4	3.8	8.7	4.6	5.9
24	2.3	4.4	2.8	13	2.8	5.9	3.2	2.2	11	6.4	3.9	3.0
25	2.4	3.1	2.6	5.0	3.2	5.4	3.6	1.9	6.9	2.7	3.2	10
26	2.4	2.7	2.6	3.9	14	8.2	3.2	1.7	3.6	2.0	3.0	49
27	2.4	2.5	2.5	3.5	5.6	18	3.1	1.7	2.7	1.8	3.0	8.0
28	2.4	2.4	2.5	3.5	3.8	6.4	3.1	1.3	2.3	1.7	2.7	5.0
29	2.1	2.6	19	3.3	3.3	4.6	2.9	1.6	1.5	1.2	2.7	3.8
30	2.1	2.3	11	3.3	---	4.6	3.4	2.2	1.5	.87	2.0	3.2
31	2.1	---	4.8	3.5	---	6.9	---	18	---	41	2.2	---
TOTAL	125.2	116.4	210.0	130.5	124.1	190.2	126.6	177.9	238.3	136.89	587.5	155.6
MEAN	4.04	3.88	6.77	4.21	4.28	6.14	4.22	5.74	7.94	4.42	19.0	5.19
MAX	20	24	40	13	17	20	11	26	36	41	288	49
MIN	2.1	1.9	2.5	2.3	2.3	2.6	2.3	1.3	1.5	.83	1.1	1.9
(†)	.41	.55	.55	0	0	0	.36	.56	.35	.55	.50	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	7.17	9.25	10.9	12.5	11.7	13.7	14.7	13.1	7.28	7.07	7.61	6.60
MAX	34.5	47.3	30.5	55.5	62.1	47.1	66.5	53.8	23.7	21.5	19.0	24.2
(WY)	1990	1978	1970	1979	1979	1984	1980	1989	1972	1989	1992	1971
MIN	1.97	1.89	2.78	1.94	3.53	3.86	3.29	2.08	2.11	2.44	1.52	1.25
(WY)	1982	1982	1981	1981	1968	1985	1985	1977	1986	1988	1982	1982

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	2936.0		2319.19			
ANNUAL MEAN	8.04		6.34		10.1	
(†)	.13		.34		---	
HIGHEST ANNUAL MEAN					20.4	1979
LOWEST ANNUAL MEAN					4.05	1981
HIGHEST DAILY MEAN	244	Jan 12	288	Aug 18	954	Jan 21 1979
LOWEST DAILY MEAN	1.3	Jul 12	.83	Jul 22	.12	Sep 15 1981
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 12	1.7	Jun 27	.51	Oct 7 1966
INSTANTANEOUS PEAK FLOW			779	Aug 18	1830a	Sep 12 1971
INSTANTANEOUS PEAK STAGE			7.43	Aug 18	7.43	Aug 18 1992
INSTANTANEOUS LOW FLOW			.38	Jul 30	.00	Jun 7 1971
10 PERCENT EXCEEDS	15		11		18	
50 PERCENT EXCEEDS	4.3		3.1		5.0	
90 PERCENT EXCEEDS	1.9		2.0		1.9	

a From rating curve extended above 150 ft^3/s.
† Diversion, in cubic feet per second, from Jumping Brook by New Jersey-American Water Co. for municipal supply.

01408000 MANASQUAN RIVER AT SQUANKUM, NJ

LOCATION.--Lat 40°09'47", Long 74°09'21", Monmouth County, Hydrologic Unit 02040301, on right bank 50 ft upstream from northbound bridge on State Highway 547 (Squankum Park Road) in Squankum, and 0.4 mi downstream from Marsh Bog Brook.

DRAINAGE AREA.--44.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1931 to current year. Monthly discharge only for July 1931, published in WSP 1302.

REVISED RECORDS.--WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 18.82 ft above sea level. Prior to Aug. 13, 1940, water-stage recorder at site 80 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good except those above 300 ft^3/s, which are fair. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 20	0800	*1,350	*8.37	Aug. 18	1115	990	7.16

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	23	27	36	34	34	54	34	69	33	96	30
2	26	23	33	35	31	34	60	34	42	31	33	29
3	26	23	183	35	31	34	49	33	35	30	27	33
4	26	23	199	106	31	33	45	31	31	62	31	31
5	25	23	71	87	31	33	43	31	75	36	25	29
6	26	23	53	54	30	33	41	31	250	31	23	28
7	25	23	46	47	30	44	40	30	75	30	22	28
8	24	23	42	42	31	50	40	52	54	28	22	28
9	23	23	40	41	32	38	38	133	46	62	27	28
10	23	25	94	42	28	36	39	70	40	33	26	42
11	23	56	56	38	29	90	40	59	37	29	38	56
12	27	36	46	36	29	54	37	46	33	26	131	32
13	23	30	43	36	28	43	36	43	31	26	35	28
14	22	27	45	46	31	39	36	42	29	26	53	27
15	22	26	42	44	33	37	36	37	28	29	47	27
16	27	26	37	36	91	35	36	59	27	57	138	27
17	60	24	36	33	47	35	56	52	25	29	205	26
18	96	24	36	33	43	35	79	41	25	28	719	25
19	37	24	33	30	45	87	50	38	112	25	161	25
20	29	24	32	30	40	76	44	34	753	25	93	24
21	27	24	33	31	37	59	43	33	124	24	68	24
22	26	38	33	31	35	48	44	31	75	24	55	25
23	26	69	33	38	34	57	45	31	60	45	48	36
24	25	34	33	80	33	52	39	29	66	50	43	25
25	25	29	31	45	33	51	38	28	54	29	40	27
26	25	27	30	39	68	51	36	29	45	26	38	160
27	24	26	30	36	50	170	35	30	41	26	69	56
28	23	26	30	36	41	74	36	28	41	25	40	42
29	23	25	62	35	39	57	35	27	37	23	36	35
30	23	25	64	34	---	52	34	27	34	22	33	31
31	23	---	41	35	---	65	---	76	---	84	31	---
TOTAL	887	852	1614	1327	1095	1636	1284	1299	2394	1054	2453	1064
MEAN	28.6	28.4	52.1	42.8	37.8	52.8	42.8	41.9	79.8	34.0	79.1	35.5
MAX	96	69	199	106	91	170	79	133	753	84	719	160
MIN	22	23	27	30	28	33	34	27	25	22	22	24
CFSM	.65	.65	1.18	.97	.86	1.20	.97	.95	1.81	.77	1.80	.81
IN.	.75	.72	1.36	1.12	.93	1.38	1.09	1.10	2.02	.89	2.07	.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1992, BY WATER YEAR (WY)

MEAN	51.4	70.8	81.4	89.4	96.9	111	101	80.1	58.4	53.4	51.9	51.8
MAX	130	231	212	218	214	221	218	177	126	200	108	183
(WY)	1972	1978	1978	1979	1979	1984	1983	1989	1968	1938	1948	1938
MIN	22.1	22.3	26.4	30.7	37.8	47.2	40.3	38.8	26.6	19.9	16.7	16.7
(WY)	1964	1966	1966	1981	1992	1985	1985	1955	1957	1966	1932	1932

01408000 MANASQUAN RIVER AT SQUANKUM, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1932 - 1992	
ANNUAL TOTAL	21575		16959			
ANNUAL MEAN	59.1		46.3		74.7	
HIGHEST ANNUAL MEAN					131	1978
LOWEST ANNUAL MEAN					40.5	1966
HIGHEST DAILY MEAN	809	Jan 12	753	Jun 20	1720	Nov 8 1977
LOWEST DAILY MEAN	20	Jul 12	22	Oct 14	14	Aug 24 1932
ANNUAL SEVEN-DAY MINIMUM	20	Sep 12	23	Oct 28	14	Sep 8 1932
INSTANTANEOUS PEAK FLOW			1350	Jun 20	2940	Sep 21 1938
INSTANTANEOUS PEAK STAGE			8.37	Jun 20	12.45	Sep 21 1938
INSTANTANEOUS LOW FLOW			20	Jul 30	8.1	Aug 6 1981
ANNUAL RUNOFF (CFSM)	1.34		1.05		1.70	
ANNUAL RUNOFF (INCHES)	18.24		14.34		23.06	
10 PERCENT EXCEEDS	102		69		130	
50 PERCENT EXCEEDS	41		34		54	
90 PERCENT EXCEEDS	23		25		27	

01408000 MANASQUAN RIVER AT SQUANKUM, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-1981, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
20...	1000	24	221	6.9	9.0	9.5	82	E1.4	20	11
FEB 1992										
04...	1130	31	217	7.2	2.5	12.3	90	E1.8	50	<10
APR										
09...	1045	39	211	7.2	9.5	10.8	94	<1.0	70	10
JUN										
16...	1400	27	200	7.6	18.5	8.9	94	<1.0	790	60
JUL										
30...	1100	22	220	7.5	19.0	7.9	85	E1.3	790	270

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
20...	84	29	2.8	6.7	3.1	50	35	16	0.2
FEB 1992									
04...	81	27	3.2	8.6	2.8	37	37	19	0.2
APR									
09...	72	24	3.0	7.4	2.6	32	36	22	0.2
JUN									
16...	83	28	3.1	7.6	3.1	41	29	16	0.1
JUL									
30...	82	28	3.0	7.8	2.9	46	34	17	0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
20...	14	138	<0.003	<0.003	0.25	0.25	0.06	0.15	0.21
FEB 1992									
04...	15	138	0.007	0.007	0.70	0.66	0.10	0.13	0.22
APR									
09...	14	131	0.011	0.011	0.52	0.51	<0.03	<0.03	0.13
JUN									
16...	17	131	0.006	0.005	0.50	0.47	<0.03	<0.03	0.17
JUL									
30...	14	137	0.007	0.006	0.50	0.50	<0.03	<0.03	<0.03

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
20...	0.29	0.46	0.54	0.02	<0.02	1.6	0.3	3	0.19
FEB 1992									
04...	--	0.92	--	0.06	<0.02	1.3	0.2	4	0.33
APR									
09...	0.11	0.65	0.62	0.03	<0.02	1.3	0.2	4	0.42
JUN									
16...	0.15	0.67	0.62	0.04	<0.02	1.5	0.2	4	0.29
JUL									
30...	<0.03	--	--	0.05	<0.02	11	0.2	3	0.18

01408000 MANASQUAN RIVER AT SQUANKUM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991											
20...	1000	--	<1	<1	1.1	120	1200	<0.1	1.4	--	8
20...	1000	10	--	--	--	--	--	--	--	<1	--
JUN 1992											
16...	1400	<10	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
20...	--	--	--	<1	--	8	<5	--	10	--
20...	<10	<10	<1	--	8	--	--	--	--	1200
JUN 1992										
16...	<10	30	<1	--	1	--	--	<1	--	1200

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
20...	17000	--	<10	--	42	--	<0.01	--	<10	--
20...	--	<1	--	90	--	<0.10	--	4	--	<1
JUN 1992										
16...	--	<1	--	50	--	<0.10	--	7	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
20...	<1	--	90	<1	<1.0	<0.1	2.0	0.6	0.3	0.6
20...	--	20	--	--	--	--	--	--	--	--
JUN 1992										
16...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
20...	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
20...	--	--	--	--	--	--	--	--	--	--
JUN 1992										
16...	--	--	--	--	--	--	--	--	--	--

01408029 MANASQUAN RIVER NEAR ALLENWOOD, NJ

LOCATION.--Lat 40°08'48", long 74°07'23", Monmouth County, Hydrologic Unit 02040301, on left bank just downstream of pumping station of Manasquan Water Supply System, 1400 ft upstream from Hospital Road near Allenwood, 1.2 mi downstream from Mill Run, and 7.9 mi from mouth.

DRAINAGE AREA.--63.3 mi^2.

PERIOD OF RECORD.--June 1990 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is sea level (New Jersey Water Supply Authority benchmark).

REMARKS.-- Records good except for estimated discharges, which are fair. Diversion by New Jersey-American Water Company from Manasquan Reservoir since 1990 and by Manasquan Water Supply System at gage to Manasquan Reservoir for municipal supply since March 1990. Records of diversions provided by New Jersey Water Supply Authority. Several measurements of water temperature were made during the year.

REVISIONS.--The diversions as published in the 1991 report are in error. The diversions from the Manasquan River are published as diversions to Glendola Reservoir and the diversions to Glendola Reservior are published as diversions from Manasquan River.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	25	22	39	29	23	e29	25	77	20	163	19
2	17	16	19	48	24	29	e37	26	33	18	37	18
3	17	16	196	54	24	28	e20	31	23	18	21	20
4	17	15	268	138	23	27	e17	26	23	54	22	21
5	16	15	82	148	24	26	e20	22	42	28	17	18
6	22	16	56	87	22	26	e24	21	259	20	17	17
7	17	15	18	56	22	37	e25	20	60	19	18	17
8	15	15	15	57	24	26	e23	35	61	17	18	17
9	13	15	26	60	25	14	e24	107	48	51	22	15
10	21	19	98	63	18	17	27	32	37	24	20	36
11	24	67	55	57	19	86	30	56	31	18	20	63
12	18	44	35	54	20	47	26	42	24	17	145	26
13	14	27	31	53	17	27	26	34	18	17	27	18
14	15	21	17	65	22	19	14	33	17	18	39	15
15	17	16	16	67	26	15	32	26	15	23	26	17
16	19	15	26	54	130	13	39	27	16	54	92	17
17	46	14	18	48	83	28	49	21	16	21	317	16
18	113	15	30	49	56	32	46	33	15	17	1350	15
19	36	20	20	42	49	89	24	27	77	17	366	18
20	19	19	27	44	40	82	37	26	1030	19	149	18
21	16	19	26	45	34	40	32	31	170	19	88	17
22	17	27	26	45	30	20	33	27	73	19	58	28
23	16	50	23	55	29	49	30	36	37	31	46	48
24	15	16	28	120	27	43	26	24	42	53	38	25
25	15	23	28	74	28	44	15	22	40	21	34	19
26	17	24	27	60	79	e44	24	23	36	18	31	242
27	16	22	27	54	61	e250	30	24	31	18	61	110
28	27	21	26	54	40	e61	26	22	31	17	32	71
29	37	20	69	42	14	e43	28	19	25	17	27	58
30	33	20	96	29	---	e42	27	19	22	17	23	47
31	33	---	53	30	---	e54	---	50	---	103	21	---
TOTAL	736	667	1504	1891	1039	1381	840	967	2429	823	3345	1086
MEAN	23.7	22.2	48.5	61.0	35.8	44.5	28.0	31.2	81.0	26.5	108	36.2
MAX	113	67	268	148	130	250	49	107	1030	103	1350	242
MIN	13	14	15	29	14	13	14	19	15	17	17	15
(α)	21.1	21.4	24.6	9.5	25.6	41.4	35.2	32.8	29.0	23.3	23.6	18.6
(*)	20.8	13.4	10.7	18.3	20.8	13.3	17.9	16.1	19.3	20.7	18.7	17.2

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	43.4	37.8	75.8	126	52.3	112	82.9	52.4	51.2	42.8	96.4	32.8
MAX	63.0	53.4	103	191	69.4	179	138	73.6	81.0	66.4	131	36.2
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1992	1990	1990	1992
MIN	23.7	22.2	48.5	61.0	35.8	44.5	28.0	31.2	21.5	26.5	50.3	26.1
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1991	1992	1991	1991

01408029 MANASQUAN RIVER NEAR ALLENWOOD, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1992		
ANNUAL TOTAL	26825		16708		64.8		
ANNUAL MEAN	73.5		45.7		84.0		1991
(α)	18.3		25.5		---		
HIGHEST ANNUAL MEAN					45.7		1992
LOWEST ANNUAL MEAN							
HIGHEST DAILY MEAN	1300	Jan 12	1350	Aug 18	1350	Aug 18	1992
LOWEST DAILY MEAN	12	Jun 27	13	Oct 9	12	Jun 23	1990
ANNUAL SEVEN-DAY MINIMUM	14	Sep 7	15	Nov 3	14	Sep 7	1991
INSTANTANEOUS PEAK FLOW			1790	Jun 20	1930	Jan 12	1991
INSTANTANEOUS PEAK STAGE			14.56	Jun 20	14.80	Jan 12	1991
INSTANTANEOUS LOW FLOW			.05a	Apr 28	.05a	Apr 28	1992
10 PERCENT EXCEEDS	154		72		128		
50 PERCENT EXCEEDS	35		26		35		
90 PERCENT EXCEEDS	15		16		16		

a Result of pumping to Manasquan Reservoir.
e Estimated.
α Diversion from Manasquan River by New Jersey Water Supply Authority, equivalent in cubic feet per second. These figures include water pumped to Glendola Reservoir for New Jersey-American Water Company.
* Water pumped to New Jersey-American Company Glendola Reservoir for municipal supply, equivalent in cubic feet per second.

RESERVOIR DATA

01407965 MANASQUAN RESERVOIR.--Lat 40°10'48", long 74°11'44", Monmouth County, Hydrologic Unit 02040301, at dam on Timber Swamp Brook, 1.6 mi southwest of Farmingdale, and 1.2 mi upstream from the Manasquan River. DRAINAGE AREA, 3.15 mi^2. PERIOD OF RECORD, March 1990 to current year. GAGE, water-stage recorder. Datum of gage is sea level.
REMARKS.--Reservoir is formed by an earthfill dam 4,840 ft long, utilizing a soil-bentonite cut-off wall to control water seepage; dam completed in July 1990 with nominal crest elevation 112.0 ft, but filling began earlier. Usable capacity 4,200,000,000 gal at elevation 103.0 ft, which represents the normal and service spillway elevation; outflow is regulated through an inlet/outlet tower and the reservoir is filled by pumping from the Manasquan River Intake Pumping Station and the Reservoir Pumping Station through 5.25 mi of 66-in. pipeline (see station 01408029). Water is used for municipal supply.
COOPERATION.--Records provided by New Jersey Water Supply Authority.
EXTREMES FOR CURRENT YEAR.--Maximum contents 4,200,000,000 gal, June 7, elevation, 103.0 ft; minimum, 3,180,000,000 gal, Feb. 26, elevation, 97.7 ft.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 4,200,000,000 gal, June 7, 1992, elevation, 103.0 ft; minimum (after first filling), 3,180,000,000 gal, Feb. 26, 1992, elevation 97.7 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)
	01407965 MANASQUAN RESERVOIR		
Sept. 30	99.40	3,500	--
Oct. 31	99.10	3,450	-2.5
Nov. 30	98.80	3,390	-3.1
Dec. 31	99.90	3,610	+11.0
CAL YR 1991			-.8
Jan. 31	98.00	3,240	-18.5
Feb. 29	97.80	3,200	-2.1
Mar. 31	100.20	3,670	+23.4
Apr. 30	101.30	3,880	+10.8
May 31	102.40	4,100	+11.0
June 30	102.80	4,170	+3.6
July 31	102.20	4,060	-5.5
Aug. 31	102.30	4,080	+1.0
Sept. 30	101.80	3,980	-5.2
WTR YR 1992			+2.0

01408120 NORTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ

LOCATION.--Lat 40°05'30", long 74°09'10", Ocean County, Hydrologic Unit 02040301, on upstream right bank at bridge on State Route 549, 1.0 mi upstream from confluence with South Branch Metedeconk River, and 2.3 mi east of Lakewood.

DRAINAGE AREA.--34.9 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 3.89 ft above sea level. Prior to Nov. 17, 1977, gage located on upstream left side of bridge. Nov. 17, 1977 to Dec. 19, 1984, gage located on the downstream side of bridge.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 18	0945	*624	*7.51	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	22	26	35	29	30	46	27	75	22	191	21
2	21	23	34	31	27	29	46	27	53	21	80	21
3	20	22	93	31	26	28	41	26	39	19	31	22
4	20	22	133	54	26	27	36	25	33	39	21	26
5	22	22	101	75	26	27	34	24	43	29	19	24
6	28	22	68	58	25	26	32	24	116	21	17	23
7	22	22	42	43	24	36	31	23	106	18	16	23
8	21	22	36	36	26	44	31	42	95	17	15	23
9	20	21	34	33	28	36	30	104	59	36	26	22
10	19	27	65	33	26	32	30	94	37	28	20	35
11	19	72	58	32	25	66	30	67	32	19	19	48
12	21	56	44	30	24	56	30	45	29	16	31	32
13	19	37	37	29	23	40	29	38	27	16	25	24
14	18	31	36	34	25	34	29	35	25	16	30	21
15	19	27	35	35	28	31	28	33	24	16	34	20
16	25	26	33	31	73	29	30	48	23	30	69	19
17	41	25	31	29	57	27	44	56	22	21	140	19
18	68	24	30	27	43	28	53	42	22	18	498	18
19	43	23	28	26	40	62	45	36	34	17	267	17
20	31	23	27	26	36	73	38	32	71	15	123	17
21	25	23	27	25	32	52	35	30	97	15	64	17
22	24	26	28	24	30	43	35	28	123	15	38	17
23	23	53	28	31	29	46	36	27	59	26	32	28
24	23	42	28	62	28	42	32	26	34	44	29	22
25	22	33	27	50	28	39	31	26	36	26	28	22
26	23	28	26	38	52	40	30	26	34	20	29	109
27	23	25	26	34	50	86	31	27	29	19	29	99
28	23	25	25	31	39	82	33	26	28	17	30	54
29	22	24	46	30	33	59	30	24	24	15	27	35
30	22	24	65	29	---	41	28	23	22	14	24	29
31	22	---	45	29	---	48	---	44	---	73	23	---
TOTAL	771	872	1362	1111	958	1339	1034	1155	1451	718	2025	907
MEAN	24.9	29.1	43.9	35.8	33.0	43.2	34.5	37.3	48.4	23.2	65.3	30.2
MAX	68	72	133	75	73	86	53	104	123	73	498	109
MIN	18	21	25	24	23	26	28	23	22	14	15	17
CFSM	.71	.83	1.26	1.03	.95	1.24	.99	1.07	1.39	.66	1.87	.87
IN.	.82	.93	1.45	1.18	1.02	1.43	1.10	1.23	1.55	.77	2.16	.97

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1992, BY WATER YEAR (WY)

MEAN	45.5	61.1	72.3	76.0	70.7	79.2	83.8	66.9	49.7	44.9	42.5	39.1
MAX	92.6	141	129	153	153	160	153	139	89.6	107	88.8	80.9
(WY)	1990	1973	1978	1979	1979	1984	1984	1989	1984	1984	1990	1989
MIN	24.4	26.1	32.2	25.2	33.0	38.8	34.5	27.1	26.0	21.7	15.2	17.8
(WY)	1982	1982	1989	1981	1992	1981	1992	1977	1986	1988	1981	1988

01408120 NORTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1973 - 1992	
ANNUAL TOTAL	18451		13703			
ANNUAL MEAN	50.6		37.4		60.9	
HIGHEST ANNUAL MEAN					91.5	1984
LOWEST ANNUAL MEAN					34.7	1981
HIGHEST DAILY MEAN	429	Jan 12	498	Aug 18	838	Feb 25 1979
LOWEST DAILY MEAN	15	Sep 11	14	Jul 30	11	Aug 28 1981
ANNUAL SEVEN-DAY MINIMUM	15	Sep 11	18	Sep 16	12	Aug 24 1981
INSTANTANEOUS PEAK FLOW			624	Aug 18	1370a	Nov 8 1977
INSTANTANEOUS PEAK STAGE			7.51	Aug 18	9.28	Nov 8 1977
INSTANTANEOUS LOW FLOW			14	Jul 30	11	Aug 28 1981
ANNUAL RUNOFF (CFSM)	1.45		1.07		1.75	
ANNUAL RUNOFF (INCHES)	19.67		14.61		23.72	
10 PERCENT EXCEEDS	95		62		111	
50 PERCENT EXCEEDS	38		29		46	
90 PERCENT EXCEEDS	19		20		22	

a From rating curve extended above 600 ft^3/s.

01408150 SOUTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ

LOCATION.--Lat 40°05'09", long 74°11'09", Ocean County, Hydrologic Unit 02040301, on right side of dam at Lake Shenandoah, 1.5 mi downstream from Lake Carasaljo, 0.8 mi east of Lakewood, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--27.5 mi^2.

PERIOD OF RECORD.--June to September 1992.

GAGE.--Water-stage recorder above a concrete dam. Datum of gage is 23.0 ft above sea level.

REMARKS.--Records fair except from July 29 to Sept. 30, which are poor. Regulation from Lakes Carasaljo, Manetta, and Shenandoah.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	21	e210	e34
2	---	---	---	---	---	---	---	---	---	21	e160	e33
3	---	---	---	---	---	---	---	---	---	21	e80	e38
4	---	---	---	---	---	---	---	---	---	29	e40	e37
5	---	---	---	---	---	---	---	---	---	31	e30	e36
6	---	---	---	---	---	---	---	---	---	30	26	e35
7	---	---	---	---	---	---	---	---	---	28	e25	e33
8	---	---	---	---	---	---	---	---	---	25	e24	e30
9	---	---	---	---	---	---	---	---	---	33	e29	e28
10	---	---	---	---	---	---	---	---	---	30	e28	e40
11	---	---	---	---	---	---	---	---	---	29	e29	e45
12	---	---	---	---	---	---	---	---	10	28	e39	e42
13	---	---	---	---	---	---	---	---	17	28	e43	e38
14	---	---	---	---	---	---	---	---	21	28	e47	e30
15	---	---	---	---	---	---	---	---	23	25	e53	e27
16	---	---	---	---	---	---	---	---	23	21	e67	e25
17	---	---	---	---	---	---	---	---	22	21	e160	e23
18	---	---	---	---	---	---	---	---	22	25	e210	e21
19	---	---	---	---	---	---	---	---	29	24	e220	e19
20	---	---	---	---	---	---	---	---	51	22	e170	e18
21	---	---	---	---	---	---	---	---	97	22	e140	e19
22	---	---	---	---	---	---	---	---	147	22	e100	e22
23	---	---	---	---	---	---	---	---	112	27	e80	e24
24	---	---	---	---	---	---	---	---	37	35	e65	e25
25	---	---	---	---	---	---	---	---	35	35	e52	e30
26	---	---	---	---	---	---	---	---	37	31	e45	e100
27	---	---	---	---	---	---	---	---	36	29	e48	e80
28	---	---	---	---	---	---	---	---	34	27	e47	e60
29	---	---	---	---	---	---	---	---	32	e30	e39	e46
30	---	---	---	---	---	---	---	---	27	e29	e38	e35
31	---	---	---	---	---	---	---	---	---	e70	e36	---
TOTAL	---	---	---	---	---	---	---	---	---	877	2380	1073
MEAN	---	---	---	---	---	---	---	---	---	28.3	76.8	35.8
MAX	---	---	---	---	---	---	---	---	---	70	220	100
MIN	---	---	---	---	---	---	---	---	---	21	24	18
CFSM	---	---	---	---	---	---	---	---	---	1.03	2.79	1.30
IN.	---	---	---	---	---	---	---	---	---	1.19	3.22	1.45

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD JUNE TO SEPTEMBER

MEAN	---	---	---	---	---	---	---	---	---	28.3	76.8	35.8
MAX	---	---	---	---	---	---	---	---	---	28.3	76.8	35.8
(WY)	---	---	---	---	---	---	---	---	---	1992	1992	1992
MIN	---	---	---	---	---	---	---	---	---	28.3	76.8	35.8
(WY)	---	---	---	---	---	---	---	---	---	1992	1992	1992

SUMMARY STATISTICS	JUNE TO SEPTEMBER 1992	
MEAN	---	
HIGHEST DAILY MEAN	220	Aug 19
LOWEST DAILY MEAN	18	Sep 20
INSTANTANEOUS PEAK FLOW	289	Aug 18
INSTANTANEOUS PEAK STAGE	2.76	Aug 18
INSTANTANEOUS LOW FLOW	7.5	Jun 11

e Estimated.

01408500 TOMS RIVER NEAR TOMS RIVER, NJ
(National stream quality accounting network station)

LOCATION.--Lat 39°59'10", long 74°13'29", Ocean County, Hydrologic Unit 02040301, on left bank 500 ft downstream of bridge on State 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October, November 1928, published in WSP 1302.

REVISED RECORDS.--WSP 1702: 1938. WDR NJ-76-1: 1975(M). WDR NJ-77-1: 1976.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.10 ft above sea level.

REMARKS.--No estimated daily discharges. Records excellent. Diversions by Ciba-Geigy Inc. since July 1966, 800 ft. upstream; the effluent is returned by pipeline directly into the Atlantic Ocean, thus bypassing station. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 8	1130	496	6.37	Aug. 19	1815	*726	*7.70

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	91	102	149	121	131	167	114	157	90	268	115
2	114	92	114	139	117	124	164	112	167	86	268	111
3	106	92	177	133	113	119	156	110	150	86	268	110
4	102	91	234	150	112	116	147	106	128	127	201	110
5	100	90	258	177	111	114	140	103	137	130	157	110
6	99	89	282	186	109	112	133	103	249	119	126	108
7	96	89	254	173	108	121	128	101	341	108	108	108
8	93	89	196	155	109	137	125	112	478	97	100	106
9	91	89	173	144	111	141	122	153	423	107	102	105
10	89	94	191	138	121	135	121	171	287	109	101	108
11	89	124	193	134	159	163	122	174	203	99	98	122
12	90	134	192	129	111	169	121	161	165	90	112	127
13	91	131	178	126	106	163	119	145	140	85	122	120
14	89	125	169	130	107	147	116	133	127	81	127	112
15	89	118	158	132	110	135	114	123	119	79	138	104
16	92	112	149	129	144	126	114	122	110	81	176	100
17	112	107	141	121	166	120	125	136	105	81	260	97
18	142	103	135	118	188	118	151	136	100	82	562	94
19	149	101	129	113	167	148	175	125	113	82	696	93
20	142	99	124	109	154	180	164	116	161	82	655	92
21	125	98	123	110	138	195	149	111	192	78	497	89
22	114	99	123	109	131	187	141	106	247	76	327	89
23	108	121	122	116	129	176	143	99	239	87	227	96
24	107	130	122	145	95	163	137	98	156	114	186	96
25	104	124	120	155	84	153	129	94	132	120	164	99
26	103	114	118	150	136	151	123	95	122	109	147	188
27	101	107	116	139	154	190	120	97	113	99	141	209
28	98	102	114	132	153	204	121	96	107	92	137	221
29	96	99	131	127	143	209	120	95	99	84	136	201
30	93	98	155	124	---	181	118	92	94	77	130	171
31	91	---	159	122	---	171	---	109	---	166	123	---
TOTAL	3240	3152	4952	4214	3707	4699	4025	3648	5361	3003	6860	3611
MEAN	105	105	160	136	128	152	134	118	179	96.9	221	120
MAX	149	134	282	186	188	209	175	174	478	166	696	221
MIN	89	89	102	109	84	112	114	92	94	76	98	89
CFSM	.85	.85	1.30	1.11	1.04	1.23	1.09	.96	1.45	.79	1.80	.98
IN.	.98	.95	1.50	1.27	1.12	1.42	1.22	1.10	1.62	.91	2.07	1.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1992, BY WATER YEAR (WY)

MEAN	157	200	223	244	252	288	281	245	188	159	162	153
MAX	325	475	447	506	455	541	573	461	463	439	359	414
(WY)	1972	1973	1973	1978	1973	1958	1984	1958	1968	1938	1990	1971
MIN	83.3	85.5	96.1	104	128	143	120	118	96.8	77.3	57.9	69.7
(WY)	1942	1966	1966	1981	1992	1985	1985	1992	1977	1988	1966	1943

01408500 TOMS RIVER NEAR TOMS RIVER, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1929 - 1992	
ANNUAL TOTAL	64985		50472			
ANNUAL MEAN	178		138		212	
HIGHEST ANNUAL MEAN					335	1978
LOWEST ANNUAL MEAN					130	1981
HIGHEST DAILY MEAN	765	Jan 14	696	Aug 19	1910	Sep 23 1938
LOWEST DAILY MEAN	69	Aug 14	76	Jul 22	47	Aug 31 1966
ANNUAL SEVEN-DAY MINIMUM	72	Sep 12	80	Jul 16	48	Sep 7 1966
INSTANTANEOUS PEAK FLOW			726	Aug 19	2000a	Sep 23 1938
INSTANTANEOUS PEAK STAGE			7.70	Aug 19	12.50b	Sep 23 1938
INSTANTANEOUS LOW FLOW			64	Feb 24	46c	Aug 31 1966
ANNUAL RUNOFF (CFSM)	1.45		1.12		1.73	
ANNUAL RUNOFF (INCHES)	19.65		15.26		23.46	
10 PERCENT EXCEEDS	295		188		353	
50 PERCENT EXCEEDS	139		122		184	
90 PERCENT EXCEEDS	87		92		97	

a From rating curve extended above 1,500 ft^3/s.
b From floodmark.
c Also occurred many days in September 1966.
e Estimated.

01408500 TOMS RIVER NEAR TOMS RIVER, NJ--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1974 to September 1981 (discontinued).
WATER TEMPERATURE: November 1963 to May 1966, November 1974 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 1991										
26...	1100	114	74	5.9	5.5	1.5	11.9	93	K25	160
JAN 1992										
28...	1130	131	71	5.5	0.5	1.6	14.3	98	25	K9
MAR										
30...	1200	181	71	5.4	7.5	2.0	12.5	104	--	47
MAY										
26...	1100	94	75	6.3	15.0	2.5	11.0	109	67	K57
JUL										
28...	1200	91	70	5.6	21.0	2.1	8.0	90	87	3800
SEP										
29...	1130	201	67	4.8	16.5	2.4	8.5	87	110	32

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L AS CACO3)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV 1991										
26...	13	2.9	1.3	6.7	1.3	3.0	2.0	3	10	10
JAN 1992										
28...	11	2.6	1.2	5.9	1.3	4.0	3.0	4	10	10
MAR										
30...	11	2.6	1.2	6.0	0.80	--	--	--	11	9.5
MAY										
26...	12	2.7	1.2	7.0	1.4	2.0	2.0	3	8.7	11
JUL										
28...	11	2.5	1.2	6.8	1.2	--	--	--	8.1	11
SEP										
29...	10	2.5	0.97	5.5	1.0	2.0	2.0	2	8.2	9.5

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
NOV 1991									
26...	0.2	5.5	42	<0.01	<0.01	0.55	0.54	0.21	0.20
JAN 1992									
28...	0.2	5.6	41	<0.01	<0.01	0.49	0.51	0.23	0.22
MAR									
30...	0.2	3.9	38	<0.01	<0.01	0.35	0.33	0.15	0.14
MAY									
26...	<0.1	3.5	40	<0.01	<0.01	0.64	0.65	0.24	0.24
JUL									
28...	<0.1	4.9	41	0.01	<0.01	0.70	0.71	0.14	0.13
SEP									
29...	<0.1	4.9	35	<0.01	<0.01	0.26	0.26	0.11	0.10

01408500 TOMS RIVER NEAR TOMS RIVER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1991									
26...	0.4	0.95	0.03	<0.01	<0.01	<0.01	2	0.62	80
JAN 1992									
28...	0.4	0.89	<0.01	<0.01	<0.01	<0.01	3	1.1	68
MAR									
30...	0.4	0.75	0.01	0.01	0.02	<0.01	5	2.4	64
MAY									
26...	0.5	1.1	0.04	0.02	0.01	<0.01	54	14	14
JUL									
28...	0.4	1.1	0.02	<0.01	0.02	<0.01	18	4.4	20
SEP									
29...	0.5	0.76	0.03	<0.01	<0.01	0.02	9	4.9	77

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
NOV 1991							
26...	1100	100	27	<3	190	<4	39
MAR 1992							
30...	1200	210	29	<3	320	<4	43
JUL							
28...	1200	60	26	<3	140	<4	28
SEP							
29...	1130	170	28	<3	340	<4	43

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV 1991						
26...	<10	2	<1	<1.0	18	<6
MAR 1992						
30...	<10	<1	<1	<1.0	18	<6
JUL						
28...	<10	<1	<1	<1.0	17	<6
SEP						
29...	<10	1	<1	<1.0	17	<6

01409387 MULLICA RIVER AT OUTLET OF ATSION LAKE, AT ATSION, NJ

LOCATION.--Lat 39°44'25", long 74°43'37", 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 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
25...	1030	19	40	5.1	10.5	10.0	90	E1.3	<20	33
JAN 1992										
22...	1100	29	40	5.3	3.5	11.8	88	<1.0	<20	<10
MAR										
17...	1115	29	46	4.9	4.5	12.3	95	--	<20	<10
MAY										
27...	1300	20	40	4.9	18.0	8.3	88	<1.0	<20	<10
JUL										
29...	1400	44	35	4.5	24.5	6.0	72	<1.0	<20	<10

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
25...	7	1.7	0.66	2.9	0.80	3.3	6.1	6.6	0.2
JAN 1992									
22...	7	1.6	0.76	2.8	0.80	2.3	6.9	5.2	0.2
MAR									
17...	7	1.5	0.72	3.2	0.80	<1.0	6.3	4.4	0.1
MAY									
27...	6	1.2	0.63	3.2	0.70	1.3	5.0	5.2	<0.1
JUL									
29...	5	1.2	0.60	3.1	0.70	<1.0	4.7	5.4	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
25...	4.3	26	<0.003	<0.003	0.20	0.22	<0.03	0.12	0.38
JAN 1992									
22...	4.7	26	<0.003	<0.003	0.47	0.46	<0.03	<0.03	0.22
MAR									
17...	3.4	--	<0.003	<0.003	0.28	0.30	0.06	0.10	0.24
MAY									
27...	2.0	20	0.007	<0.003	0.28	0.24	<0.03	<0.03	0.34
JUL									
29...	4.2	--	0.010	0.005	0.31	0.29	0.05	<0.03	0.54

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
25...	0.24	0.58	0.46	0.16	<0.02	3.6	0.7	3	0.15
JAN 1992									
22...	0.21	0.69	0.67	<0.02	<0.01	3.0	0.2	2	0.16
MAR									
17...	0.20	0.52	0.50	<0.02	<0.02	3.6	0.3	3	0.23
MAY									
27...	0.21	0.62	0.45	0.02	<0.02	5.1	0.2	2	0.11
JUL									
29...	0.43	0.85	0.72	0.02	<0.02	10	2.1	7	0.83

01409387 MULLICA RIVER AT OUTLET OF ATSION LAKE, AT ATSION, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991											
25...	1030	--	<1	<1	0.6	120	70	<0.1	1.5	--	9
25...	1030	15	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
25...	--	--	--	<1	--	2	<5	--	8	--
25...	<10	30	<1	--	<1	--	--	12	--	510

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
25...	4700	--	<10	--	<10	--	<0.01	--	<10	--
25...	--	8	--	20	--	<0.10	--	<1	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
25...	<1	--	<10	<1	<1.0	<0.1	<1.0	0.1	<0.1	0.1
25...	--	10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	ORGANIC HALOGEN TOT REC FROM BOTTOM MATERIAL (UG/G) AS CL
NOV 1991											
25...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10	0.546
25...	--	--	--	--	--	--	--	--	--	--	--

01409400 MULLICA RIVER NEAR BATSTO, NJ

LOCATION.--Lat 39°40'28", long 74°39'55", Atlantic County, Hydrologic Unit 02040301, on right bank 2.4 mi upstream from Sleeper Branch, and 2.5 mi north of Batsto.

DRAINAGE AREA.--46.7 mi^2.

PERIOD OF RECORD.--September 1957 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1958(M), 1960(M), 1967-68(M), WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 11.93 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Some regulation from upstream cranberry bogs and Atsion Lake. Diversions from Sleeper Branch enter river upstream of gage and substantially increase the discharge at the gage. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	47	48	62	58	70	135	50	77	53	108	70
2	64	47	55	66	54	66	122	49	106	52	146	63
3	59	46	79	71	57	64	115	49	98	49	174	72
4	56	45	108	93	55	80	79	46	64	79	153	84
5	54	44	134	106	54	85	60	45	90	84	96	83
6	55	44	152	103	54	83	58	44	191	82	83	81
7	54	44	145	101	53	86	58	44	188	77	77	89
8	50	44	135	97	55	90	62	51	184	73	83	94
9	49	44	128	95	54	87	66	59	218	70	80	86
10	51	45	132	97	52	62	71	66	168	65	70	86
11	66	50	112	100	53	65	70	76	113	66	65	85
12	57	59	111	103	51	59	70	78	117	59	63	72
13	51	66	129	107	51	55	69	77	94	58	57	65
14	50	68	140	113	53	53	59	71	69	53	66	61
15	50	75	134	113	56	56	55	64	62	50	74	58
16	50	70	126	110	74	58	55	60	58	51	91	56
17	62	73	118	66	75	59	58	59	55	49	126	53
18	79	85	115	68	75	59	60	60	51	47	299	51
19	78	103	104	63	78	78	78	57	61	44	385	50
20	73	66	100	61	80	94	78	51	89	42	365	47
21	68	40	97	60	80	105	69	47	90	42	237	46
22	63	39	91	59	75	108	71	46	64	40	157	47
23	63	43	86	59	71	108	68	47	58	59	144	50
24	67	42	64	66	69	103	63	46	58	85	117	48
25	67	40	55	58	68	95	61	44	72	96	89	54
26	66	38	53	63	77	91	60	43	66	112	84	108
27	67	37	53	58	81	108	58	43	80	145	89	119
28	58	39	53	60	80	113	54	42	82	158	143	124
29	51	41	63	59	75	111	51	40	67	115	136	134
30	48	43	68	58	---	109	51	40	56	71	116	139
31	47	---	63	59	---	121	---	58	---	69	89	---
TOTAL	1846	1567	3051	2454	1868	2581	2084	1652	2846	2195	4062	2275
MEAN	59.5	52.2	98.4	79.2	64.4	83.3	69.5	53.3	94.9	70.8	131	75.8
MAX	79	103	152	113	81	121	135	78	218	158	385	139
MIN	47	37	48	58	51	53	51	40	51	40	57	46

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

MEAN	68.9	90.3	118	139	139	153	149	125	79.9	73.3	77.3	62.9
MAX	192	305	305	311	292	312	358	273	159	177	253	223
(WY)	1976	1973	1973	1978	1979	1958	1983	1989	1979	1989	1958	1975
MIN	24.1	22.0	29.8	29.3	64.4	59.1	50.3	53.3	32.3	21.9	20.2	19.4
(WY)	1966	1966	1966	1981	1992	1985	1985	1992	1977	1977	1977	1980

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1957 - 1992	
ANNUAL TOTAL	37018		28481			
ANNUAL MEAN	101		77.8		106	
HIGHEST ANNUAL MEAN					168	1973
LOWEST ANNUAL MEAN					50.4	1966
HIGHEST DAILY MEAN	547	Jan 13	385	Aug 19	1630	Feb 26 1979
LOWEST DAILY MEAN	27	Jul 12	37	Nov 27	7.5	Sep 6 1966
ANNUAL SEVEN-DAY MINIMUM	30	Jul 6	40	Nov 22	8.6	Sep 5 1966
INSTANTANEOUS PEAK FLOW			401	Aug 19	1840	Feb 26 1979
INSTANTANEOUS PEAK STAGE			3.43	Aug 19	6.14	Feb 26 1979
INSTANTANEOUS LOW FLOW			37	Nov 27	7.0	Sep 6 1966
10 PERCENT EXCEEDS	200		118		201	
50 PERCENT EXCEEDS	83		66		86	
90 PERCENT EXCEEDS	39		47		32	

01409416 HAMMONTON CREEK AT WESCOATVILLE, NJ

LOCATION.--Lat 39°38'02", long 74°43'05", 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 mi^2, revised.

PERIOD OF RECORD.--Water years 1974 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
26...	1130	8.0	139	6.4	6.5	8.0	64	2.9	20	27
JAN 1992										
15...	1200	9.4	125	6.6	4.0	9.8	75	<1.0	20	20
MAR										
18...	1130	11	151	6.6	7.0	9.7	79	1.5	40	<10
JUN										
18...	1130	6.7	168	6.0	17.0	3.2	33	<1.0	490	70
JUL										
29...	1130	11	128	6.2	19.0	4.1	44	<1.0	20	60

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
26...	20	4.7	1.9	13	3.7	<1.0	14	17	0.2
JAN 1992									
15...	20	4.8	2.0	11	3.3	10	14	15	0.3
MAR									
18...	23	5.8	2.0	12	3.7	11	17	15	0.1
JUN									
18...	27	7.6	2.0	16	4.1	4.1	14	23	0.4
JUL									
29...	24	6.1	2.1	13	3.8	7.1	12	16	0.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
26...	7.7	--	0.068	0.065	3.34	3.45	2.39	2.26	3.3
JAN 1992									
15...	7.4	80	0.049	0.047	3.18	3.20	1.40	1.46	1.9
MAR									
18...	7.7	85	0.052	0.051	2.78	2.82	1.97	1.79	2.3
JUN									
18...	7.1	97	0.086	0.086	4.18	4.41	0.88	0.98	2.0
JUL									
29...	6.0	80	0.025	0.024	3.52	3.58	0.12	0.18	0.64

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
26...	3.2	6.6	6.6	0.64	0.52	4.1	0.9	4	0.09
JAN 1992									
15...	1.9	5.1	5.1	0.51	0.39	4.2	0.7	6	0.15
MAR									
18...	2.3	5.0	5.1	0.48	0.35	3.3	--	4	0.12
JUN									
18...	1.8	6.2	6.2	0.52	0.38	5.4	0.4	7	0.13
JUL									
29...	0.31	4.2	3.9	0.50	0.42	3.9	0.4	4	0.12

01409416 HAMMONTON CREEK AT WESCOATVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
NOV 1991 26...	1130	26	<1	<10	<1	1	20

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
NOV 1991 26...	390	3	20	<0.10	2	<1	10

01409500 BATSTO RIVER AT BATSTO, NJ

LOCATION.--Lat 39°38'33", long 74°39'00", Burlington County, Hydrologic Unit 02040301, on right bank 30 ft downstream from bridge on State Highway 542 at Batsto, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--67.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for April to September 1939, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1930, 1933, 1936, 1938. WDR NJ-83-1: Drainage area. WDR-87-1: 1939 (M).

GAGE.--Water-stage recorder. Concrete control since Oct. 12, 1939; prior to Mar. 24, 1939, wooden control at site 50 ft downstream. Datum of gage is 1.4 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Considerable regulation at times by sluice gates prior to December 1954 and by automatic Bascule and sluice gates since July 1959 at Batsto Lake, 300 ft upstream, capacity, about 60,000,000 gal. Several measurements of water temperature, other than those published, were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	75	75	99	90	97	110	74	92	72	113	88
2	95	73	83	95	86	93	109	74	106	69	239	85
3	91	74	99	94	84	90	105	74	101	68	296	88
4	85	74	122	101	82	90	102	73	95	88	225	114
5	81	74	138	109	82	88	99	70	109	99	166	136
6	81	73	147	108	81	86	94	68	142	98	134	129
7	82	73	141	107	79	89	90	68	213	90	114	116
8	84	74	130	102	78	95	87	72	234	82	100	108
9	79	73	121	98	80	100	88	80	191	77	92	102
10	74	77	126	95	79	99	86	86	156	73	86	98
11	72	75	131	93	78	105	82	83	128	75	81	101
12	74	76	140	92	78	107	78	86	110	75	81	99
13	73	79	134	90	77	107	78	82	96	72	80	95
14	71	80	128	91	77	103	77	78	88	68	83	91
15	70	79	123	90	80	99	75	75	84	67	91	87
16	69	78	120	88	94	94	76	73	79	69	107	84
17	85	75	114	86	106	90	77	73	75	67	150	83
18	94	74	108	84	110	90	80	72	72	65	317	80
19	100	74	101	83	110	95	83	70	73	64	586	79
20	100	74	96	82	110	106	89	70	89	62	497	75
21	95	74	94	81	107	125	89	67	100	63	353	74
22	91	74	94	80	103	123	93	66	94	62	246	74
23	87	78	94	78	99	117	90	65	87	79	182	75
24	84	80	93	92	95	115	85	63	84	106	144	75
25	83	80	92	98	92	114	80	61	94	140	123	85
26	82	78	92	97	99	111	77	61	93	146	111	130
27	81	74	91	92	103	111	76	61	91	128	107	146
28	80	74	88	92	104	122	75	61	87	113	123	174
29	78	74	92	92	101	125	75	60	81	99	118	157
30	85	73	100	90	---	122	74	58	75	87	101	139
31	120	---	102	90	---	114	---	69	---	85	93	---
TOTAL	2629	2263	3409	2869	2644	3222	2579	2193	3219	2608	5339	3067
MEAN	84.8	75.4	110	92.5	91.2	104	86.0	70.7	107	84.1	172	102
MAX	120	80	147	109	110	125	110	86	234	146	586	174
MIN	69	73	75	78	77	86	74	58	72	62	80	74
CFSM	1.25	1.11	1.62	1.37	1.34	1.53	1.27	1.04	1.58	1.24	2.54	1.51
IN.	1.44	1.24	1.87	1.57	1.45	1.77	1.42	1.20	1.77	1.43	2.93	1.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1992, BY WATER YEAR (WY)

MEAN	88.2	113	124	140	149	168	155	144	105	93.7	104	93.2
MAX	241	307	302	280	361	353	322	279	242	257	332	242
(WY)	1959	1973	1973	1949	1939	1958	1970	1958	1948	1938	1958	1960
MIN	43.9	43.4	48.4	55.6	75.9	79.5	71.8	65.1	50.9	40.6	42.0	44.5
(WY)	1966	1966	1966	1966	1931	1981	1985	1977	1977	1977	1957	1977

01409500 BATSTO RIVER AT BATSTO, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1928 - 1992	
ANNUAL TOTAL	48729		36041			
ANNUAL MEAN	134		98.5		122	
HIGHEST ANNUAL MEAN					193	1958
LOWEST ANNUAL MEAN					66.2	1966
HIGHEST DAILY MEAN	667	Jan 13	586	Aug 19	2000	Aug 20 1939
LOWEST DAILY MEAN	54	Jul 11	58	May 30	5.7	Oct 4 1959
ANNUAL SEVEN-DAY MINIMUM	56	Jul 6	61	May 24	37	Sep 1 1965
INSTANTANEOUS PEAK FLOW			623	Aug 19	2000	Aug 20 1939
INSTANTANEOUS PEAK STAGE			4.29	Aug 19	5.70a	Aug 20 1939
INSTANTANEOUS LOW FLOW			.00b	Jan 4	.00b	Many days
ANNUAL RUNOFF (CFSM)	1.97		1.45		1.80	
ANNUAL RUNOFF (INCHES)	26.74		19.77		24.50	
10 PERCENT EXCEEDS	237		128		206	
50 PERCENT EXCEEDS	108		89		102	
90 PERCENT EXCEEDS	70		73		57	

a From floodmark.
b After gates closed and water below spillway.

01409500 BATSTO RIVER AT BATSTO, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1925, 1956, 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
26...	1330	79	44	5.6	7.0	10.0	82	E2.3	<20	17
JAN 1992										
23...	1200	79	52	5.3	3.5	11.5	87	<1.0	<20	<10
MAR										
24...	1130	115	50	5.1	5.0	11.2	87	<1.0	<20	<10
MAY										
28...	1215	62	50	5.8	16.0	9.7	98	<1.0	<20	<10
AUG										
13...	1130	79	30	5.7	22.0	7.2	81	<1.0	<20	10

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
26...	10	2.4	1.0	3.0	1.3	2.6	7.5	7.5	0.2
JAN 1992									
23...	8	1.9	0.89	2.5	0.90	3.0	8.0	5.6	0.1
MAR									
24...	10	2.2	1.1	2.8	0.80	1.3	7.8	4.7	<0.1
MAY									
28...	4	0.94	0.52	2.2	0.50	2.4	3.3	3.6	<0.1
AUG									
13...	7	1.5	0.75	2.4	0.60	4.2	3.8	4.0	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
26...	5.9	32	<0.003	0.003	0.21	0.26	0.08	0.19	0.43
JAN 1992									
23...	5.9	30	<0.003	<0.003	0.57	0.59	<0.03	0.03	0.16
MAR									
24...	4.5	27	0.004	<0.003	0.47	0.50	0.07	0.08	0.22
MAY									
28...	4.6	18	0.004	0.043	0.20	0.28	<0.03	<0.03	0.14
AUG									
13...	3.4	19	0.010	0.009	0.06	0.07	<0.03	<0.03	0.23

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
26...	--	0.64	--	0.03	<0.02	5.2	0.3	5	1.1
JAN 1992									
23...	--	0.73	--	<0.02	<0.02	1.7	0.4	5	1.1
MAR									
24...	0.15	0.69	0.65	<0.02	<0.02	3.3	0.2	2	0.62
MAY									
28...	0.26	0.34	0.54	<0.02	<0.02	1.7	0.4	2	0.33
AUG									
13...	0.22	0.29	0.29	<0.02	<0.02	5.8	0.7	2	0.43

01409500 BATSTO RIVER AT BATSTO, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
NOV 1991										
26...	1330	--	0.9	130	72	<0.1	3.2	--	3	--
26...	1330	14	--	--	--	--	--	<1	--	<10
MAY 1992										
28...	1215	<10	--	--	--	--	--	<1	--	<10

DATE	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)
NOV 1991										
26...	--	--	<1	--	3	<5	--	3	--	1300
26...	--	1	--	1	--	--	15	--	740	--
MAY 1992										
28...	<10	<1	--	2	--	--	<1	--	810	--

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)
NOV 1991										
26...	--	<10	--	<10	--	<0.01	--	<10	--	<1
26...	2	--	20	--	0.10	--	2	--	<1	--
MAY 1992										
28...	1	--	10	--	<0.10	--	1	--	<1	--

DATE	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
26...	--	<10	<1	<1.0	<0.1	<1.0	0.3	0.2	0.4	<0.1
26...	--	--	--	--	--	--	--	--	--	--
MAY 1992										
28...	20	--	--	--	--	--	--	--	--	--

DATE	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991									
26...	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
26...	--	--	--	--	--	--	--	--	--
MAY 1992									
28...	--	--	--	--	--	--	--	--	--

01409510 BATSTO RIVER AT PLEASANT MILLS, NJ

LOCATION.--Lat 39°37'55", long 74°38'40", Burlington County, Hydrologic Unit 02040301, on right bank, 0.4 mi upstream from Mullica River, and 0.5 mi southeast of Pleasant Mills.

DRAINAGE AREA.--73.6 mi^2.

PERIOD OF RECORD.--July 1958 to current year. Annual maximum only published for 1958 to 1965.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.6 ft below sea level. Gage-height record converted to elevation above or below (-) sea level for publication.

REMARKS.--No gage-height or doubtful record: Jan. 19-31 and Apr. 16-28. Summaries for months with short periods of no gage-height record have been estimated with negligible or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 7.2 ft, Mar. 7, 1962; minimum recorded (1966-90), -0.67 ft, Jan. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 5.31 ft, Oct. 31; minimum recorded, 0.09 ft, Feb. 12.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.31	4.29	3.77	5.12	3.70	3.89	3.77	3.64	3.74	3.43	3.52	4.87
high tide	Date	31	10	3	4	8	20	19	6	6	4	29	26
Minimum	Elevation	.59	.36	.42	.28	.09	.19	.39	.10	.30	.38	.59	.52
low tide	Date	14	29	1	18	12	6	24	22	18	10	12	19
Mean high tide		2.93	2.76	2.48	---	2.58	2.67	3.05	2.87	2.87	2.91	2.95	2.89
Mean water level		1.91	1.68	1.53	---	1.53	1.63	1.89	1.71	1.82	1.81	2.04	1.88
Mean low tide		.95	.78	.71	---	.46	.63	.70	.40	.68	.67	1.11	.89

01409810 WEST BRANCH WADING RIVER NEAR JENKINS, NJ

LOCATION.--Lat 39°41'17", long 74°32'54", Burlington County, Hydrologic Unit 02040301, on right bank 900 ft downstream from Godfrey Bridge on Washington-Jenkins Road, 2.2 mi downstream from Hospitality Brook, and 1.2 mi southwest of Jenkins.

DRAINAGE AREA.--84.1 mi^2.

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR NJ-77-1: 1976. WDR NJ-81-1: 1975(P), 1976(P), 1977(P), 1978(P), 1979(P), 1980(P). WDR NJ-90-1: 1989 (M, m).

GAGE.--Water-stage recorder. Datum of gage is 10.17 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Some regulation by cranberry bogs and small ponds. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 19	0845	*818	*14.80	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	71	e63	101	90	100	232	79	120	54	179	94
2	79	85	e72	99	81	96	217	69	87	53	159	88
3	97	83	e110	98	80	93	189	62	73	53	139	113
4	97	73	132	129	84	92	164	58	68	116	124	191
5	82	65	104	160	85	90	113	57	124	133	121	211
6	78	62	91	135	84	99	159	63	398	100	97	215
7	65	66	80	120	83	112	134	70	378	84	82	199
8	62	68	78	110	82	131	128	74	300	72	73	176
9	63	67	79	107	80	143	119	91	232	67	72	149
10	75	64	112	107	75	109	143	107	162	61	71	116
11	94	78	101	105	73	137	115	119	112	70	66	124
12	140	82	93	101	74	131	83	94	98	63	75	123
13	124	79	91	99	73	114	81	84	80	60	74	117
14	92	77	95	101	78	106	97	79	72	57	122	107
15	90	73	104	97	85	101	118	72	69	55	142	93
16	86	69	103	93	143	97	97	71	67	63	196	81
17	114	65	101	87	141	94	88	70	63	59	279	76
18	194	61	99	86	133	93	85	71	59	57	638	94
19	161	61	88	86	130	139	82	66	64	54	796	74
20	108	60	86	85	122	166	81	63	77	53	681	80
21	92	65	89	85	113	151	86	72	69	54	504	78
22	95	65	89	83	107	141	77	85	64	50	331	75
23	141	95	89	91	101	152	77	69	60	102	222	91
24	153	87	89	127	97	180	78	58	69	306	170	72
25	130	81	86	102	97	212	73	55	84	286	140	84
26	96	82	83	102	121	238	77	54	72	206	120	273
27	81	79	81	97	126	297	74	55	66	158	109	243
28	74	68	80	95	116	237	73	53	62	115	125	227
29	95	66	96	93	109	214	80	56	58	79	168	206
30	83	58	116	91	---	180	86	62	55	68	144	154
31	74	---	107	91	---	178	---	80	---	73	125	---
TOTAL	3104	2155	2887	3163	2863	4423	3306	2218	3362	2881	6344	4024
MEAN	100	71.8	93.1	102	98.7	143	110	71.5	112	92.9	205	134
MAX	194	95	132	160	143	297	232	119	398	306	796	273
MIN	62	58	63	83	73	90	73	53	55	50	66	72
CFSM	1.19	.85	1.11	1.21	1.17	1.70	1.31	.85	1.33	1.11	2.43	1.59
IN.	1.37	.95	1.28	1.40	1.27	1.96	1.46	.98	1.49	1.27	2.81	1.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1992, BY WATER YEAR (WY)

MEAN	103	121	121	188	168	199	205	178	112	108	109	84.0
MAX	237	261	270	379	313	389	418	326	210	250	278	226
(WY)	1976	1978	1978	1979	1979	1979	1983	1979	1984	1989	1978	1989
MIN	50.4	69.3	58.7	54.6	98.7	93.0	98.8	71.5	47.5	29.9	35.6	38.9
(WY)	1983	1979	1981	1981	1992	1985	1985	1992	1986	1977	1977	1982

01409810 WEST BRANCH WADING RIVER NEAR JENKINS, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1975 - 1992	
ANNUAL TOTAL	53122		40730			
ANNUAL MEAN	146		111		141	
HIGHEST ANNUAL MEAN					224	1978
LOWEST ANNUAL MEAN					73.9	1985
HIGHEST DAILY MEAN	1070	Jul 14	796	Aug 19	1260	Feb 27 1979
LOWEST DAILY MEAN	38	Jul 11	50	Jul 22	23	Jul 24 1977
ANNUAL SEVEN-DAY MINIMUM	42	Jul 6	56	Jul 16	26	Jul 23 1977
INSTANTANEOUS PEAK FLOW			818	Aug 19	1320	Feb 26 1979
INSTANTANEOUS PEAK STAGE			14.80	Aug 19	16.14	Feb 26 1979
INSTANTANEOUS LOW FLOW			47	Jul 22	22	Jul 24 1977
ANNUAL RUNOFF (CFSM)	1.73		1.32		1.68	
ANNUAL RUNOFF (INCHES)	23.50		18.02		22.82	
10 PERCENT EXCEEDS	276		177		270	
50 PERCENT EXCEEDS	102		91		105	
90 PERCENT EXCEEDS	52		63		48	

e Estimated.

01409815 WEST BRANCH WADING RIVER AT MAXWELL, NJ
(National stream-quality accounting network station)

LOCATION.--Lat 39°40'30", long 74°32'28", Burlington County, Hydrologic Unit 02040301, at bridge on State Highway 563 in Maxwell, 2.2 mi southeast of Washington, 1.8 mi southwest of Jenkins, and 1.6 mi upstream from confluence with Oswego River.

DRAINAGE AREA.--85.9 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Water-stage recorder located at station 01409810.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 1991												
26...	1130	83	39	4.5	6.5	3.0	10.9	88	K4	K18	3	0.64
JAN 1992												
28...	1045	96	38	4.3	2.5	2.5	11.5	83	K1	K7	4	0.82
MAR												
30...	1230	185	44	4.4	7.5	2.0	11.8	99	K2	40	4	0.79
MAY												
26...	1120	55	41	4.5	14.0	4.7	8.8	86	K5	150	3	0.61
JUL												
28...	1215	120	49	4.2	21.0	4.5	7.2	82	29	970	3	0.55
SEP												
29...	1130	220	51	4.2	17.0	3.6	7.3	76	36	61	3	0.52

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
NOV 1991												
26...	0.43	2.1	0.70	--	4.8	4.9	0.2	5.1	<0.01	<0.01	<0.05	<0.05
JAN 1992												
28...	0.45	2.3	0.70	<1	5.2	4.2	0.2	5.8	<0.01	<0.01	<0.05	<0.05
MAR												
30...	0.46	2.5	0.50	--	6.0	4.3	0.2	3.5	<0.01	<0.01	<0.05	<0.05
MAY												
26...	0.44	2.3	0.70	<1	5.5	4.1	<0.1	5.4	<0.01	<0.01	<0.05	<0.05
JUL												
28...	0.38	2.2	0.70	--	4.6	4.6	<0.1	4.7	<0.01	<0.01	<0.05	<0.05
SEP												
29...	0.34	2.0	0.60	--	3.8	4.7	<0.1	4.2	<0.01	<0.01	<0.05	<0.05

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1991											
26...	0.01	0.02	<0.2	--	0.02	<0.01	<0.01	<0.01	2	0.45	86
JAN 1992											
28...	0.03	0.02	<0.2	--	<0.01	<0.01	<0.01	<0.01	--	--	--
MAR											
30...	0.01	<0.01	<0.2	--	<0.01	0.03	0.01	<0.01	4	2.0	59
MAY											
26...	0.04	0.03	<0.2	--	0.03	<0.01	<0.01	<0.01	6	0.89	100
JUL											
28...	0.04	0.03	0.2	<0.20	0.01	<0.01	0.01	<0.01	13	4.2	60
SEP											
29...	0.02	0.03	0.4	--	0.03	<0.01	0.02	0.02	7	4.2	88

01409815 WEST BRANCH WADING RIVER AT MAXWELL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
NOV 1991							
26...	1130	160	12	<3	420	<4	15
MAR 1992							
30...	1230	190	11	<3	470	<4	17
JUL							
28...	1215	190	13	<3	420	<4	13
SEP							
29...	1130	170	11	<3	690	<4	13

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV 1991						
26...	<10	<1	<1	<1.0	6	<6
MAR 1992						
30...	<10	<1	<1	<1.0	7	<6
JUL						
28...	<10	<1	<1	<1.0	6	<6
SEP						
29...	<10	1	<1	<1.0	5	<6

01410000 OSWEGO RIVER AT HARRISVILLE, NJ

LOCATION.--Lat 39°39'47", long 74°31'26", Burlington County, Hydrologic Unit 02040301, on right bank 50 ft downstream from bridge on State Highway Spur 563 at Harrisville, and 0.3 mi upstream from confluence with West Branch Wading River.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--72.5 mi^2.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1955, published as "East Branch Wading River at Harrisville".

REVISED RECORDS.--WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since June 23, 1939. Datum of gage is 4.62 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Figures given herein represent flow over main spillway and through bypass channel. Flow regulated by Harrisville Pond 200 ft above station, capacity, about 30,000,000 gal and by ponds and cranberry bogs 5 to 10 mi upstream. Flow probably reduced by ground-water outflow to nearby surface drainage basins, such as Oyster Creek. Several measurements of water temperature, other than those published, were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	45	36	55	47	55	89	38	53	36	98	63
2	60	58	43	52	49	52	85	36	49	36	103	58
3	57	45	64	51	47	51	68	36	44	35	89	65
4	52	39	89	71	46	50	60	36	42	79	71	70
5	47	37	81	88	44	49	55	37	86	76	61	78
6	46	42	70	74	44	47	53	36	201	60	54	77
7	44	45	65	67	45	59	54	36	192	50	50	78
8	43	44	62	64	46	71	53	43	126	43	47	75
9	42	42	63	62	46	65	55	57	102	42	47	71
10	39	42	92	66	45	81	50	64	89	40	47	71
11	40	53	96	62	44	98	49	63	75	48	46	74
12	42	54	87	57	44	90	79	54	69	46	47	73
13	39	49	72	54	44	80	73	50	56	43	46	70
14	39	49	64	55	46	72	49	46	48	39	59	65
15	41	49	59	52	51	68	46	44	44	37	73	62
16	42	47	54	51	83	64	45	53	40	40	98	59
17	58	43	51	48	79	62	48	57	39	38	152	55
18	76	42	50	47	72	61	50	50	38	36	396	53
19	76	44	45	45	68	84	52	74	41	35	517	51
20	66	42	45	45	67	96	52	81	41	34	446	49
21	56	38	46	45	66	87	53	69	39	34	358	50
22	51	39	47	45	65	84	54	47	37	32	265	55
23	51	48	46	51	60	93	53	40	37	70	160	54
24	47	48	46	67	57	99	56	36	38	151	112	47
25	45	42	44	60	58	66	53	34	52	133	95	42
26	43	39	43	59	72	64	48	35	46	87	97	128
27	41	37	44	55	72	85	47	36	42	74	90	158
28	42	36	51	54	65	85	45	36	39	64	79	145
29	41	36	64	51	59	79	42	35	37	57	74	126
30	38	34	73	46	---	75	40	34	36	51	72	107
31	38	---	64	46	---	76	---	43	---	61	70	---
TOTAL	1505	1308	1856	1745	1631	2248	1656	1436	1878	1707	4019	2229
MEAN	48.5	43.6	59.9	56.3	56.2	72.5	55.2	46.3	62.6	55.1	130	74.3
MAX	76	58	96	88	83	99	89	81	201	151	517	158
MIN	38	34	36	45	44	47	40	34	36	32	46	42
CFSM	.67	.60	.83	.78	.78	1.00	.76	.64	.86	.76	1.79	1.02
IN.	.77	.67	.95	.90	.84	1.15	.85	.74	.96	.88	2.06	1.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1992, BY WATER YEAR (WY)

MEAN	64.0	82.7	83.7	101	103	115	112	97.4	71.7	68.5	76.1	62.3
MAX	176	234	200	242	210	220	253	198	155	201	207	163
(WY)	1959	1973	1973	1979	1939	1958	1970	1989	1984	1938	1933	1938
MIN	28.6	30.8	27.1	33.9	53.2	51.9	41.3	43.9	33.7	24.2	23.9	24.4
(WY)	1966	1966	1966	1966	1931	1985	1985	1942	1966	1977	1957	1951

01410000 OSWEGO RIVER AT HARRISVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1931 - 1992	
ANNUAL TOTAL	30569		23218			
ANNUAL MEAN	83.8		63.4		86.4	
HIGHEST ANNUAL MEAN					138	1978
LOWEST ANNUAL MEAN					41.4	1966
HIGHEST DAILY MEAN	727	Jul 14	517	Aug 19	1220	Aug 20 1939
LOWEST DAILY MEAN	31	Jul 12	32	Jul 22	4.0	Jun 23 1967
ANNUAL SEVEN-DAY MINIMUM	35	Jul 6	35	May 24	14	Sep 7 1966
INSTANTANEOUS PEAK FLOW			532	Aug 19	1390a	Aug 20 1939
INSTANTANEOUS PEAK STAGE			5.01	Aug 19	9.45b	Aug 20 1939
INSTANTANEOUS LOW FLOW			31	Jul 22	.00c	Oct 26 1932
ANNUAL RUNOFF (CFSM)	1.16		.87		1.19	
ANNUAL RUNOFF (INCHES)	15.69		11.91		16.20	
10 PERCENT EXCEEDS	142		88		150	
50 PERCENT EXCEEDS	65		52		71	
90 PERCENT EXCEEDS	38		38		37	

a From rating curve extended above 640 ft^3/s.
b From high-water mark in gage house.
c While pond filling.

01410000 OSWEGO RIVER AT HARRISVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 1991												
26...	1100	39	40	4.1	7.0	11.0	91	E1.7	<20	<2	4	0.82
JAN 1992												
29...	1215	50	43	4.4	4.0	11.6	88	<1.0	<20	<10	3	0.67
APR												
08...	1130	52	48	4.6	12.0	10.7	100	<1.0	<20	<10	4	0.73
JUN												
22...	1300	38	42	4.3	19.0	8.3	90	<1.0	20	<10	3	0.65
AUG												
20...	1045	451	49	4.0	21.0	6.6	74	<1.0	50	10	3	0.70

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
NOV 1991												
26...	0.40	2.3	0.80	<1.0	6.1	4.1	0.20	7.8	<0.003	<0.003	0.070	0.07
JAN 1992												
29...	0.43	2.2	0.60	<1.0	6.1	3.9	0.20	8.0	<0.003	<0.003	0.290	0.24
APR												
08...	0.48	2.4	0.70	<1.0	6.5	4.4	<0.10	5.9	0.004	0.003	0.260	0.26
JUN												
22...	0.37	2.0	0.60	<1.0	5.6	3.9	<0.10	6.9	<0.003	<0.003	0.150	0.23
AUG												
20...	0.31	1.9	0.40	<1.0	4.3	3.1	<0.10	3.1	0.025	0.024	0.170	0.16

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991												
26...	<0.030	<0.030	0.18	0.14	0.25	0.21	0.02	0.03	2.1	--	1	0.11
JAN 1992												
29...	<0.030	0.040	0.14	--	0.43	--	0.07	0.10	2.6	0.1	2	0.27
APR												
08...	<0.030	<0.030	0.12	0.08	0.38	0.34	<0.02	<0.02	2.0	0.2	2	0.28
JUN												
22...	<0.030	<0.030	0.16	0.28	0.31	0.51	<0.02	<0.02	2.4	0.5	7	0.72
AUG												
20...	<0.030	<0.030	0.59	0.54	0.76	0.70	0.04	0.03	19	0.4	6	7.3

01410000 OSWEGO RIVER AT HARRISVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991											
26...	1100	--	<1	1	<0.2	40	<40	<0.1	0.6	--	4
26...	1100	<10	--	--	--	--	--	--	--	<1	--
JUN 1992											
22...	1300	<10	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
26...	--	--	--	<1	--	2	<5	--	4	--
26...	<10	--	<1	--	<1	--	--	13	--	260
JUN 1992										
22...	<10	<10	<1	--	<1	--	--	<1	--	680

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
26...	2600	--	<10	--	<10	--	<0.01	--	<10	--
26...	--	<1	--	<10	--	<0.10	--	2	--	<1
JUN 1992										
22...	--	1	--	<10	--	<0.10	--	3	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
26...	<1	--	<10	<1	<1.0	<0.1	<1.0	0.5	0.1	0.3
26...	--	<10	--	--	--	--	--	--	--	--
JUN 1992										
22...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
26...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<10	<0.1	<1.00	<10
26...	--	--	--	--	--	--	--	--	--	--
JUN 1992										
22...	--	--	--	--	--	--	--	--	--	--

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ

LOCATION.--Lat 39°37'23", long 74°26'30", Burlington County, Hydrologic Unit 02040301, on left bank upstream of 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969 to 1974. January 1978 to current year.

REVISED RECORDS.--WDR NJ-81-1: 1978-80(P).

GAGE.--Water-stage recorder. Datum of gage is 1.10 ft above sea level.

REMARKS.--Records good. Some regulation by Lake Absegami. Several measurements of water temperature, other than those published, were made during the year.

REVISIONS.--Some peak discharges and annual maximum (*) reported for water years 1978, 1979, 1989, and 1991 have been revised as shown in the following table. They supersede figures published in the reports for those years.

Water year	Date	Discharge (ft^3/s)	Gage height (ft)	Water year	Date	Discharge (ft^3/s)	Gage height (ft)
1978	July 4, 1978	*177	*5.87	1989	Sep. 20, 1989	*123	*5.58
1979	Feb. 26, 1979	*132	*5.63	1991	July 14, 1991	*198	*5.97
1979	Mar. 6, 1979	123	5.58				

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 65 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 18	0900	*104	*5.46	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	10	10	13	11	10	12	9.9	12	8.2	21	15
2	9.8	10	13	12	10	10	12	9.6	11	8.4	16	15
3	9.8	10	19	12	10	10	12	9.3	9.7	8.5	11	15
4	9.9	10	23	18	10	10	12	9.0	9.1	18	9.6	16
5	10	9.9	18	18	10	9.9	12	9.3	20	18	9.2	16
6	10	9.8	14	15	9.8	10	11	9.1	36	12	9.1	15
7	9.9	9.9	13	13	9.6	13	11	9.0	25	9.9	8.6	17
8	9.5	9.9	12	13	9.9	16	11	13	15	9.1	8.4	16
9	9.4	9.8	12	12	9.8	13	11	18	13	8.9	8.7	15
10	9.3	10	20	12	9.5	12	11	18	12	8.5	8.6	15
11	9.4	13	18	12	9.2	19	14	17	12	8.9	8.8	19
12	9.5	13	15	12	9.2	17	13	13	11	8.8	9.0	17
13	9.1	11	14	12	9.1	13	12	12	11	8.4	8.7	14
14	9.1	11	13	13	9.3	12	11	11	11	8.0	12	14
15	9.4	10	13	12	11	12	11	11	10	8.1	15	13
16	9.7	10	12	11	19	11	11	11	10	11	20	13
17	16	10	12	11	16	11	12	11	10	9.6	34	13
18	23	9.8	12	11	13	11	12	11	9.8	8.6	88	13
19	17	9.8	12	11	13	18	12	11	10	8.5	51	13
20	12	9.8	12	11	12	19	12	9.6	10	9.1	34	12
21	11	9.8	12	11	11	14	12	9.4	9.8	8.3	24	12
22	10	10	12	11	11	13	12	9.3	9.5	8.0	19	12
23	10	11	12	12	10	15	11	9.1	9.4	11	19	13
24	10	11	12	15	10	13	11	9.2	9.5	17	18	12
25	10	10	12	13	10	12	10	10	11	14	17	14
26	10	9.8	11	12	14	13	10	10	10	10	21	42
27	10	9.7	11	11	14	17	10	11	9.4	11	31	32
28	9.9	9.6	11	11	12	15	12	10	9.1	9.8	23	20
29	9.8	9.6	16	11	11	13	11	9.5	8.8	8.6	18	16
30	10	9.6	20	11	---	12	10	9.3	8.4	8.1	16	14
31	e11	---	15	11	---	13	---	11	---	12	16	---
TOTAL	333.5	306.8	431	383	323.4	406.9	344	339.6	362.5	316.3	612.7	483
MEAN	10.8	10.2	13.9	12.4	11.2	13.1	11.5	11.0	12.1	10.2	19.8	16.1
MAX	23	13	23	18	19	19	14	18	36	18	88	42
MIN	9.1	9.6	10	11	9.1	9.9	10	9.0	8.4	8.0	8.4	12
CFSM	1.33	1.26	1.71	1.52	1.38	1.62	1.41	1.35	1.49	1.26	2.44	1.99
IN.	1.53	1.41	1.98	1.76	1.48	1.87	1.58	1.56	1.66	1.45	2.81	2.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1992, BY WATER YEAR (WY)

MEAN	11.8	13.1	14.4	18.2	17.2	18.8	21.1	19.4	15.4	13.9	13.2	11.7
MAX	24.2	23.1	23.4	35.0	29.8	36.8	38.6	30.3	27.2	25.8	24.6	21.0
(WY)	1990	1990	1984	1978	1979	1979	1984	1984	1984	1978	1978	1989
MIN	8.13	8.75	9.78	9.28	11.2	10.5	9.06	8.95	8.11	7.80	7.97	7.18
(WY)	1983	1982	1986	1981	1992	1981	1985	1985	1986	1985	1986	1986

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1978 - 1992		
ANNUAL TOTAL	6026.3		4656.3				
ANNUAL MEAN	16.5		12.7		15.2		
HIGHEST ANNUAL MEAN					21.8		1984
LOWEST ANNUAL MEAN					9.60		1985
HIGHEST DAILY MEAN	128	Jul 14	88	Aug 18	131	Jul 4	1978
LOWEST DAILY MEAN	8.1	Jul 12	8.0	Jul 14	6.3	Jul 21	1985
ANNUAL SEVEN-DAY MINIMUM	9.0	Jun 26	8.5	Jul 9	6.5	Jul 15	1988
INSTANTANEOUS PEAK FLOW			104	Aug 18	198a	Jul 14	1991
INSTANTANEOUS PEAK STAGE			5.46	Aug 18	5.97	Jul 14	1991
INSTANTANEOUS LOW FLOW			7.4	Jul 21	5.6	Jul 8	1986
ANNUAL RUNOFF (CFSM)	2.04		1.57		1.88		
ANNUAL RUNOFF (INCHES)	27.64		21.36		25.52		
10 PERCENT EXCEEDS	24		18		26		
50 PERCENT EXCEEDS	14		11		13		
90 PERCENT EXCEEDS	9.9		9.2		8.3		

a Revised.
e Estimated.

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC 1991												
02...	1200	12	43	4.5	11.0	7.8	70	<1.0	20	27	3	0.54
JAN 1992												
28...	1145	11	42	4.5	3.0	10.2	74	<1.0	20	<10	3	0.52
APR												
01...	1130	13	42	4.5	8.0	9.7	83	E1.2	<20	<10	3	0.51
JUN												
17...	1315	10	30	4.5	17.0	6.2	63	<1.0	20	<10	3	0.39
AUG												
20...	1300	33	49	4.1	19.5	4.7	51	E1.1	20	<10	4	0.60

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
DEC 1991												
02...	0.52	2.9	0.60	<1.0	5.2	5.2	<0.10	8.7	<0.003	<0.003	0.080	0.08
JAN 1992												
28...	0.53	2.7	0.60	<1.0	4.4	5.0	<0.10	8.1	<0.003	<0.003	0.180	0.15
APR												
01...	0.53	3.1	0.50	<1.0	4.9	5.5	<0.10	6.0	<0.003	<0.003	0.140	0.13
JUN												
17...	0.43	3.0	0.50	<1.0	3.0	4.7	<0.10	6.6	<0.003	0.004	0.210	0.20
AUG												
20...	0.51	2.6	0.50	<1.0	3.0	4.1	<0.10	4.3	0.023	0.022	0.200	0.16

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
DEC 1991												
02...	<0.030	<0.030	0.19	0.24	0.27	0.32	<0.02	<0.02	2.6	<0.1	1	0.03
JAN 1992												
28...	<0.030	<0.030	0.11	0.12	0.29	0.27	0.02	0.03	2.2	0.1	<1	--
APR												
01...	<0.030	0.050	0.08	0.10	0.22	0.23	<0.02	<0.02	2.8	0.2	5	0.18
JUN												
17...	<0.030	<0.030	0.26	0.34	0.47	0.54	<0.02	<0.02	4.1	0.1	2	0.05
AUG												
20...	<0.030	<0.030	0.42	0.38	0.62	0.54	0.03	<0.02	19	0.3	6	0.53

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
DEC 1991											
02...	1200	--	<1	<1	1.0	140	57	<0.1	2.6	--	<1
02...	1200	<10	--	--	--	--	--	--	--	<1	--
JUN 1992											
17...	1315	12	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
DEC 1991										
02...	--	--	--	<1	--	3	<5	--	9	--
02...	<10	50	<1	--	<1	--	--	--	--	7600
JUN 1992										
17...	<10	<10	<1	--	<1	--	--	<1	--	290

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
DEC 1991										
02...	230	--	10	--	<10	--	0.01	--	<10	--
02...	--	5	--	10	--	<0.10	--	2	--	<1
JUN 1992										
17...	--	<1	--	<10	--	<0.10	--	<1	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
DEC 1991										
02...	<1	--	<10	<10	<10	<0.1	<10	140	47	140
02...	--	30	--	--	--	--	--	--	--	--
JUN 1992										
17...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	ORGANIC HALOGEN TOT REC FROM BOTTOM MATERIAL (UG/G) AS CL
DEC 1991											
02...	<1.0	<10	<1.0	<0.1	<0.1	<0.1	<10	<1.0	<10.0	<10	1.69
02...	--	--	--	--	--	--	--	--	--	--	--
JUN 1992											
17...	--	--	--	--	--	--	--	--	--	--	--

01410784 GREAT EGG HARBOR RIVER NEAR SICKLERVILLE, NJ

LOCATION.--Lat 39°44'02", long 74°57'05", Camden County, Hydrologic Unit 02040302, at bridge on Sicklerville-New Freedom Road (Spur 536), 1.5 mi northeast of Sicklerville, and 2.7 mi upstream of New Brooklyn Lake dam.

DRAINAGE AREA.--15.1 mi^2.

PERIOD OF RECORD.--Water years 1972 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
06...	1100	7.8	56	6.4	5.0	10.4	81	<1.2	120	130
FEB 1992										
05...	1200	6.5	68	6.3	4.0	12.0	92	E1.0	2	20
APR										
14...	1300	5.3	71	6.3	12.0	11.5	106	<1.0	8	220
JUN										
09...	0930	20	57	4.8	18.5	6.4	68	E1.5	240	20
JUL										
15...	1130	4.6	60	5.9	22.0	6.8	78	<1.0	110	130

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
06...	14	3.4	1.4	4.1	1.4	8.2	3.8	5.9	<0.1
FEB 1992									
05...	14	3.4	1.4	5.2	1.5	4.8	7.9	8.8	0.1
APR									
14...	15	3.7	1.5	4.5	1.8	7.2	7.8	8.8	<0.1
JUN									
09...	13	3.1	1.2	3.9	1.2	2.4	5.9	7.0	<0.1
JUL									
15...	14	3.6	1.3	3.7	1.4	8.9	5.5	5.5	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
06...	8.5	37	0.009	0.004	0.75	0.78	0.09	0.14	0.38
FEB 1992									
05...	6.9	42	0.003	<0.003	0.81	0.88	0.03	0.04	0.28
APR									
14...	5.3	41	0.008	0.009	0.67	0.66	0.09	0.09	0.29
JUN									
09...	5.0	30	0.011	0.010	0.30	0.27	0.04	0.04	0.88
JUL									
15...	5.5	34	0.005	0.005	0.57	0.59	<0.03	<0.03	0.36

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
06...	0.32	1.1	1.1	0.04	0.03	5.0	0.1	3	0.06
FEB 1992									
05...	0.23	1.1	1.1	0.03	<0.02	3.3	0.4	2	0.03
APR									
14...	0.25	0.96	0.91	0.03	<0.02	3.8	0.6	6	0.09
JUN									
09...	0.70	1.2	0.97	0.10	0.06	24	0.8	11	0.59
JUL									
15...	0.22	0.93	0.81	0.09	0.06	5.6	0.7	2	0.02

01410784 GREAT EGG HARBOR RIVER NEAR SICKLERVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991											
06...	1100	--	<1	1	1.4	160	72	<0.1	3.9	--	<1
06...	1100	21	--	--	--	--	--	--	--	2	--
JUN 1992											
09...	0930	70	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
06...	--	--	--	<1	--	2	<5	--	8	--
06...	<10	<10	<1	--	<1	--	--	6	--	310
JUN 1992										
09...	<10	30	<1	--	<1	--	--	3	--	1100

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
06...	390	--	<10	--	<10	--	<0.01	--	<10	--
06...	--	6	--	20	--	<0.10	--	2	--	<1
JUN 1992										
09...	--	4	--	50	--	<0.10	--	3	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
06...	<1	--	<10	3	<1.0	<0.1	4.0	17	10	72
06...	--	<10	--	--	--	--	--	--	--	--
JUN 1992										
09...	--	30	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	ORGANIC HALOGEN TOT REC FROM BOTTOM MATERIAL (UG/G) AS CL
NOV 1991											
06...	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<10	<0.1	<1.00	<10	0.842
06...	--	--	--	--	--	--	--	--	--	--	--
JUN 1992											
09...	--	--	--	--	--	--	--	--	--	--	--

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ

LOCATION.--Lat 39°35'42", long 74°51'06", Atlantic County, Hydrologic Unit 02040302, on left bank 25 ft upstream from bridge on State Highway 54, 1.0 mi south of Folsom, and 2.0 mi upstream from Pennypot Stream.

DRAINAGE AREA.--57.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1925 to current year. Prior to October 1947, published as "Great Egg River at Folsom".

REVISED RECORDS.--WSP 1432: 1928(M), 1933. WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Nov. 26, 1934. Datum of gage is 53.32 ft above sea level. Prior to Mar. 6, 1941, water-stage recorder at site 100 ft downstream at same datum. Mar. 6 to Oct. 5, 1941, nonrecording gage at site 145 ft downstream at datum 0.25 ft higher.

REMARKS.--Records good. Several measurements of water temperature were made during the year. Satellite rain-gage and gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	43	47	74	52	59	75	47	93	41	88	44
2	50	43	56	68	51	57	72	47	104	43	103	43
3	47	43	79	62	49	55	69	46	100	52	78	42
4	45	42	102	68	48	54	64	45	76	65	58	48
5	44	42	118	78	47	53	61	44	79	72	50	57
6	43	42	138	77	47	51	58	43	138	63	45	59
7	42	42	128	71	46	52	56	43	223	52	42	54
8	41	42	105	65	47	66	55	56	260	46	40	51
9	40	42	87	60	47	70	54	99	217	42	38	48
10	40	41	94	58	46	65	53	109	161	41	37	46
11	39	53	104	57	45	72	53	117	111	39	36	46
12	39	55	110	55	45	82	52	113	76	38	41	46
13	39	53	103	54	45	82	51	87	64	40	43	46
14	38	51	91	54	45	73	51	71	57	38	46	45
15	39	49	86	52	48	64	50	61	53	36	53	43
16	44	48	84	51	72	59	49	58	49	e36	67	42
17	56	46	76	49	84	56	50	59	47	37	91	42
18	73	45	70	49	85	55	53	70	44	37	130	41
19	84	45	66	48	81	71	55	68	47	36	151	41
20	82	44	61	46	77	92	57	59	57	35	147	40
21	69	43	60	46	71	103	56	53	55	33	115	39
22	59	44	60	46	65	104	54	49	49	31	74	39
23	54	52	57	48	60	94	54	47	46	36	60	38
24	51	53	57	61	57	83	53	44	45	71	53	38
25	49	51	56	68	56	77	52	43	77	102	50	40
26	47	48	55	65	64	73	51	43	72	140	47	78
27	46	46	53	59	73	87	50	45	57	133	48	96
28	45	46	52	56	73	100	50	43	50	78	50	109
29	45	45	57	54	66	103	49	42	45	56	48	114
30	43	45	76	53	---	89	48	41	42	48	50	98
31	43	---	80	53	---	78	---	56	---	46	47	---
TOTAL	1531	1384	2468	1805	1692	2279	1655	1848	2594	1663	2026	1613
MEAN	49.4	46.1	79.6	58.2	58.3	73.5	55.2	59.6	86.5	53.6	65.4	53.8
MAX	84	55	138	78	85	104	75	117	260	140	151	114
MIN	38	41	47	46	45	51	48	41	42	31	36	38
CFSM	.86	.81	1.39	1.02	1.02	1.29	.97	1.04	1.51	.94	1.14	.94
IN.	1.00	.90	1.61	1.18	1.10	1.48	1.08	1.20	1.69	1.08	1.32	1.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1992, BY WATER YEAR (WY)

MEAN	60.8	79.3	91.8	102	106	119	114	95.9	72.7	63.0	64.7	61.6
MAX	148	213	212	203	228	229	234	199	149	187	182	215
(WY)	1939	1973	1973	1936	1939	1958	1983	1958	1948	1938	1967	1940
MIN	27.8	30.1	35.1	39.3	50.7	60.1	53.9	47.1	34.4	22.1	19.3	25.6
(WY)	1931	1966	1966	1981	1931	1981	1985	1955	1977	1966	1966	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1925 - 1992	
ANNUAL TOTAL	28736		22558			
ANNUAL MEAN	78.7		61.6		85.8	
HIGHEST ANNUAL MEAN					133	1973
LOWEST ANNUAL MEAN					44.4	1931
HIGHEST DAILY MEAN	348	Jan 13	260	Jun 8	1300	Sep 3 1940
LOWEST DAILY MEAN	31	Sep 12	31	Jul 22	15	Aug 29 1966
ANNUAL SEVEN-DAY MINIMUM	33	Sep 7	35	Jul 16	16	Aug 26 1966
INSTANTANEOUS PEAK FLOW			266	Jun 8	1440	Sep 3 1940
INSTANTANEOUS PEAK STAGE			5.06	Jun 8	9.09	Sep 3 1940
INSTANTANEOUS LOW FLOW			29	Jul 22	15	Sep 6 1957
ANNUAL RUNOFF (CFSM)	1.38		1.08		1.50	
ANNUAL RUNOFF (INCHES)	18.72		14.70		20.43	
10 PERCENT EXCEEDS	139		95		148	
50 PERCENT EXCEEDS	64		53		73	
90 PERCENT EXCEEDS	37		41		37	

e Estimated.

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-80, 1991 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
06...	0930	42	58	6.1	6.5	11.0	89	<1.2	8	17
FEB 1992										
06...	1145	46	57	6.1	3.5	12.7	96	E1.9	70	10
APR										
14...	1100	51	56	6.4	10.0	11.4	100	<1.0	5	<10
JUN										
10...	0830	168	61	4.3	18.0	--	--	E1.7	170	50
JUL										
15...	1000	36	53	5.9	21.0	7.7	87	<1.0	27	180

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
06...	11	2.2	1.3	5.0	1.2	7.1	4.2	7.4	<0.1
FEB 1992									
06...	11	2.2	1.3	5.0	1.1	6.8	5.9	8.1	0.1
APR									
14...	12	2.3	1.4	4.7	1.4	5.2	5.5	8.3	<0.1
JUN									
10...	11	2.5	1.1	3.8	1.0	<1.0	5.2	6.6	<0.1
JUL									
15...	10	2.0	1.1	4.5	1.1	5.8	4.0	5.9	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
06...	7.6	37	0.005	0.007	0.78	0.76	0.23	0.19	0.30
FEB 1992									
06...	6.2	39	0.006	0.004	1.00	0.99	0.15	0.15	0.44
APR									
14...	3.7	34	0.009	0.010	0.72	0.72	0.11	0.12	0.46
JUN									
10...	5.3	--	0.010	0.011	0.12	0.09	0.07	0.10	1.1
JUL									
15...	5.1	30	0.009	0.009	0.66	0.68	0.10	0.06	0.44

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
06...	0.36	1.1	1.1	<0.02	<0.02	3.5	0.3	--	--
FEB 1992									
06...	0.34	1.4	1.3	0.03	0.05	3.0	0.5	2	0.25
APR									
14...	0.32	1.2	1.0	0.03	<0.02	3.6	0.7	6	0.83
JUN									
10...	0.90	1.2	0.99	0.10	0.06	34	0.2	6	2.7
JUL									
15...	0.29	1.1	0.97	0.05	0.03	3.3	0.6	10	0.97

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991										
06...	0930	--	1	0.5	60	87	0.9	1.9	--	<1
06...	0930	--	--	--	--	--	--	--	1	--
JUN 1992										
10...	0830	91	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
06...	--	--	--	<1	--	3	<5	--	3	--
06...	<10	50	<1	--	<1	--	--	19	--	460
JUN 1992										
10...	<10	30	<1	--	4	--	--	19	--	1400

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
06...	1100	--	10	--	14	--	0.13	--	<10	--
06...	--	2	--	20	--	<0.10	--	8	--	1
JUN 1992										
10...	--	3	--	60	--	<0.10	--	5	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
06...	<1	--	<10	9	<1.0	<0.1	4.0	0.1	<1.0	0.2
06...	--	<10	--	--	--	--	--	--	--	--
JUN 1992										
10...	--	30	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
06...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
06...	--	--	--	--	--	--	--	--	--	--
JUN 1992										
10...	--	--	--	--	--	--	--	--	--	--

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ

LOCATION.--Lat 39°30'50", long 74°46'47", 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 mi^2.

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
06...	1045	110	47	--	7.5	11.8	98	<1.2	7	8
FEB 1992										
05...	1100	130	53	6.4	1.5	13.0	93	E1.0	<2	10
APR										
14...	1045	140	54	5.9	11.0	10.8	97	<1.0	2	10
JUN										
10...	1000	670	56	4.4	18.5	--	--	<1.0	240	130
JUL										
15...	0800	95	47	6.3	23.0	6.6	77	<1.0	22	160

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
06...	9	1.8	1.1	4.2	1.2	5.2	4.7	7.8	<0.1
FEB 1992									
05...	10	2.0	1.1	4.3	1.1	3.4	5.9	7.2	0.1
APR									
14...	10	2.0	1.2	4.0	1.3	3.2	6.1	7.6	<0.1
JUN									
10...	10	2.2	1.1	3.4	0.90	<1.0	5.6	6.3	<0.1
JUL									
15...	8	1.7	0.93	4.0	1.0	4.0	4.5	5.7	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
06...	7.7	34	0.007	0.007	0.64	0.59	0.07	0.09	0.35
FEB 1992									
05...	7.0	34	0.004	0.003	0.80	0.77	0.04	0.07	0.29
APR									
14...	4.7	31	0.011	0.007	0.49	0.48	0.11	0.04	0.32
JUN									
10...	4.9	--	0.009	0.009	0.07	0.07	0.10	0.07	0.89
JUL									
15...	5.1	27	0.004	0.003	0.49	0.49	<0.03	<0.03	0.34

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
06...	0.41	0.99	1.0	<0.02	<0.02	2.9	0.4	1	0.30
FEB 1992									
05...	0.23	1.1	1.0	<0.02	<0.02	2.6	0.6	2	0.70
APR									
14...	0.20	0.81	0.68	<0.02	<0.02	3.7	1.0	6	2.3
JUN									
10...	0.72	0.96	0.79	0.06	0.06	26	0.5	8	14
JUL									
15...	0.20	0.83	0.69	0.04	0.02	3.8	0.2	4	1.0

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991										
06...	1045	--	3	0.4	50	66	0.1	0.6	--	2
06...	1045	13	--	--	--	--	--	--	1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991										
06...	--	--	--	<1	--	2	<5	--	2	--
06...	<10	20	<1	--	3	--	--	6	--	500

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991										
06...	260	--	<10	--	<10	--	<0.01	--	<10	--
06...	--	6	--	20	--	<0.10	--	6	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
06...	<1	--	<10	<1	<1.0	<0.1	<1.0	0.1	<0.1	0.1
06...	--	10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991										
06...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
06...	--	--	--	--	--	--	--	--	--	--

01411300 TUCKAHOE RIVER AT HEAD OF RIVER, NJ

LOCATION.--Lat 39°18'25", long 74°49'15", Cape May County, Hydrologic Unit 02040302, on right bank at highway bridge on State Route 49, 0.2 mi upstream from McNeals Branch, 0.4 mi southeast of Head of River, and 3.7 mi west of Tuckahoe.

DRAINAGE AREA.--30.8 mi^2.

PERIOD OF RECORD.--December 1969 to current year.

REVISED RECORDS.--WDR NJ-78-1: 1975(M), 1976(M). WDR NJ-89-1: (M). WDR NJ-91-1: 1990.

GAGE.--Water-stage recorder, wooden control, and downstream tidal crest-stage gage. Datum of gage is sea level.

REMARKS.--Records fair. Occasional regulation by ponds above station. There is a fish gate in the left control which was open from Apr. 9-13 and Apr. 21 to May 2. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	e17	19	26	22	28	29	23	53	18	22	23
2	16	16	28	25	21	27	28	20	38	17	20	22
3	16	15	41	24	21	27	27	22	32	17	18	27
4	16	15	53	e39	21	27	26	20	28	26	17	33
5	15	15	44	43	21	26	25	19	43	24	16	31
6	15	16	30	32	21	26	25	19	103	21	16	30
7	15	16	26	28	20	35	25	19	90	20	15	33
8	14	16	24	26	19	44	24	45	57	19	15	34
9	14	15	23	25	18	35	27	86	42	18	15	30
10	14	e18	42	25	17	32	30	65	35	17	14	27
11	13	23	43	24	17	44	34	46	32	27	14	26
12	14	20	31	23	17	41	31	37	29	22	15	24
13	13	19	28	23	17	36	26	34	27	19	15	23
14	13	18	28	23	18	33	23	32	26	17	19	23
15	13	18	27	22	21	31	23	30	25	17	28	22
16	14	17	25	22	47	30	23	30	24	22	43	22
17	20	16	23	21	38	29	25	29	23	20	65	22
18	26	16	23	21	34	28	24	28	22	18	253	21
19	20	16	22	21	35	45	29	26	24	18	217	21
20	17	15	21	20	30	52	29	25	27	20	132	21
21	16	15	22	20	27	40	32	24	24	18	80	21
22	16	16	21	21	26	35	28	23	23	17	53	21
23	15	20	21	23	24	39	29	22	22	19	41	21
24	15	19	22	29	25	34	26	21	21	25	32	22
25	15	17	21	24	26	30	26	22	21	26	27	40
26	15	16	21	22	41	31	25	23	21	24	27	93
27	15	16	20	21	44	45	25	24	20	24	29	94
28	15	16	20	21	35	40	26	23	20	22	36	63
29	e14	16	29	20	30	34	24	22	19	19	31	51
30	e21	16	41	20	---	31	23	21	18	18	27	39
31	e20	---	31	20	---	30	---	33	---	18	25	---
TOTAL	492	504	870	754	753	1065	797	913	989	627	1377	980
MEAN	15.9	16.8	28.1	24.3	26.0	34.4	26.6	29.5	33.0	20.2	44.4	32.7
MAX	26	23	53	43	47	52	34	86	103	27	253	94
MIN	13	15	19	20	17	26	23	19	18	17	14	21
CFSM	.52	.55	.91	.79	.84	1.12	.86	.96	1.07	.66	1.44	1.06
IN.	.59	.61	1.05	.91	.91	1.29	.96	1.10	1.19	.76	1.66	1.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1992, BY WATER YEAR (WY)

MEAN	27.0	35.0	41.8	52.6	54.6	63.4	67.0	55.6	41.0	28.6	26.0	23.1
MAX	58.1	81.4	94.3	101	101	144	174	111	83.7	53.0	55.6	64.7
(WY)	1990	1973	1973	1978	1973	1979	1983	1983	1984	1989	1971	1989
MIN	15.1	16.8	19.4	16.0	26.0	30.9	21.3	20.0	14.8	12.7	10.6	7.04
(WY)	1978	1992	1981	1981	1992	1985	1985	1977	1977	1988	1988	1980

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1970 - 1992	
ANNUAL TOTAL	13029		10121			
ANNUAL MEAN	35.7		27.7		42.8	
HIGHEST ANNUAL MEAN					64.3	1984
LOWEST ANNUAL MEAN					22.4	1977
HIGHEST DAILY MEAN	210	Jan 13	253	Aug 18	464	May 31 1984
LOWEST DAILY MEAN	13	Jul 21	13	Oct 11	1.3	Sep 3 1980
ANNUAL SEVEN-DAY MINIMUM	13	Sep 4	13	Oct 9	1.9	Sep 9 1980
INSTANTANEOUS PEAK FLOW			299	Aug 18	510	May 31 1984
INSTANTANEOUS PEAK STAGE			5.55a	Oct 31	7.01a	Mar 29 1984
INSTANTANEOUS LOW FLOW			13	Oct 13	---	
ANNUAL RUNOFF (CFSM)	1.16		.90		1.39	
ANNUAL RUNOFF (INCHES)	15.74		12.22		18.87	
10 PERCENT EXCEEDS	66		41		82	
50 PERCENT EXCEEDS	24		23		33	
90 PERCENT EXCEEDS	14		16		15	

a Tide affected.
e Estimated.

01411456 LITTLE EASE RUN NEAR CLAYTON, NJ

LOCATION.--Lat 39°39'32", long 75°04'04", Gloucester County, Hydrologic Unit 02040206, on right bank 30 ft downstream from bridge on Academy Road (County Route 610), 0.9 mi west of Fries Mill, 1.3 mi east of Clayton, and 1.4 mi downstream from Beaverdam Branch.

DRAINAGE AREA.--9.77 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1966, 1976-84, 1987. February 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 100.94 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Occasional regulation from unknown sources. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	1330	*52	*3.50	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	4.0	4.0	9.3	5.8	6.2	9.5	4.2	8.6	2.6	3.6	2.3
2	2.2	4.0	5.7	8.1	5.1	5.7	8.7	4.1	7.5	3.6	2.9	2.2
3	1.9	4.0	16	7.4	4.6	5.4	7.7	4.0	5.7	3.0	2.5	3.4
4	1.7	3.7	24	10	4.2	5.2	7.0	3.8	4.4	5.5	2.3	3.7
5	1.5	3.6	23	13	4.1	5.0	6.4	3.7	11	4.6	2.2	3.3
6	1.5	3.4	20	12	3.8	4.9	6.0	3.5	47	3.6	2.1	3.1
7	1.4	3.4	15	10	3.7	6.6	5.7	3.4	42	3.1	2.0	3.0
8	1.3	3.3	11	8.4	3.7	9.6	5.5	5.8	31	2.7	1.9	3.0
9	1.2	3.3	8.5	7.4	3.7	8.7	5.3	9.6	19	2.5	1.9	2.8
10	1.2	3.3	18	6.9	3.2	7.6	5.2	10	9.2	2.3	1.9	2.8
11	1.2	5.5	19	6.4	3.1	13	5.2	8.5	6.1	2.2	1.9	3.6
12	1.3	5.7	17	5.8	3.1	13	5.1	6.6	4.9	2.1	2.0	3.1
13	1.2	5.6	14	5.5	3.1	10	4.9	5.6	4.3	2.1	1.9	2.7
14	1.2	5.3	13	5.7	3.2	8.3	4.8	5.0	3.8	2.0	2.4	2.6
15	3.5	4.9	13	5.4	4.4	7.0	4.6	4.4	3.4	2.0	2.9	2.5
16	6.9	4.6	11	5.0	12	6.2	4.6	4.4	3.2	2.3	4.6	2.3
17	12	4.1	9.2	4.3	13	5.7	4.9	5.0	2.9	2.3	7.8	2.3
18	19	3.7	8.3	4.1	12	5.6	5.1	4.7	2.7	2.4	11	2.2
19	16	3.6	7.1	3.6	12	12	5.8	4.4	2.9	2.4	7.7	2.2
20	13	3.4	6.0	3.1	10	17	6.0	3.9	3.4	2.3	5.1	2.1
21	9.2	3.3	5.7	3.1	8.4	16	5.8	3.6	3.1	2.3	3.7	2.1
22	6.8	3.7	5.7	3.1	7.1	13	5.7	3.4	2.8	2.3	3.1	2.1
23	5.2	6.6	5.6	4.2	6.3	11	5.8	3.1	2.7	2.8	2.7	2.5
24	4.4	6.2	5.6	11	5.9	10	5.4	2.9	3.2	3.9	2.4	2.2
25	4.2	5.4	5.3	11	5.6	8.7	5.0	2.8	7.0	4.6	2.3	2.5
26	4.2	4.6	4.8	9.4	8.4	8.8	5.2	2.9	4.6	5.0	2.7	11
27	4.1	4.0	4.5	7.8	9.4	19	4.9	3.2	3.7	5.2	3.7	11
28	4.3	3.7	4.3	6.9	8.5	19	4.7	3.1	3.2	5.2	3.3	8.8
29	4.5	3.4	7.8	6.5	7.2	16	4.5	2.8	2.8	4.2	3.2	7.1
30	4.4	3.3	12	6.1	---	12	4.4	2.7	2.5	2.8	2.7	4.5
31	4.1	---	11	6.0	---	11	---	5.5	---	2.7	2.4	---
TOTAL	147.3	126.6	335.1	216.5	184.6	307.2	169.4	140.6	258.6	96.6	102.8	109.0
MEAN	4.75	4.22	10.8	6.98	6.37	9.91	5.65	4.54	8.62	3.12	3.32	3.63
MAX	19	6.6	24	13	13	19	9.5	10	47	5.5	11	11
MIN	1.2	3.3	4.0	3.1	3.1	4.9	4.4	2.7	2.5	2.0	1.9	2.1
CFSM	.49	.43	1.11	.71	.65	1.01	.58	.46	.88	.32	.34	.37
IN.	.56	.48	1.28	.82	.70	1.17	.65	.54	.98	.37	.39	.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

MEAN	8.13	7.91	9.25	15.2	11.5	14.6	15.4	14.9	9.22	6.79	6.61	6.34
MAX	19.7	15.0	11.2	26.5	17.2	18.4	20.4	29.3	15.4	19.0	15.2	20.4
(WY)	1990	1990	1991	1991	1990	1991	1990	1989	1989	1989	1989	1989
MIN	1.93	4.22	7.03	6.98	6.37	9.91	5.65	4.54	2.18	1.83	1.60	1.77
(WY)	1989	1992	1989	1992	1992	1992	1992	1992	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1988 - 1992	
ANNUAL TOTAL	3539.9		2194.3			
ANNUAL MEAN	9.70		6.00		11.0	
HIGHEST ANNUAL MEAN					14.3	1989
LOWEST ANNUAL MEAN					6.00	1992
HIGHEST DAILY MEAN	64	Jan 12	47	Jun 6	111	Sep 20 1989
LOWEST DAILY MEAN	1.1	Sep 11	1.2	Oct 9	.41	Aug 16 1988
ANNUAL SEVEN-DAY MINIMUM	1.1	Sep 11	1.2	Oct 8	.50	Aug 10 1988
INSTANTANEOUS PEAK FLOW			52	Jun 6	124	Sep 20 1989
INSTANTANEOUS PEAK STAGE			3.50	Jun 6	4.27	Sep 20 1989
INSTANTANEOUS LOW FLOW			1.1	Oct 10	.35	Aug 15 1988
ANNUAL RUNOFF (CFSM)	.99		.61		1.13	
ANNUAL RUNOFF (INCHES)	13.48		8.35		15.34	
10 PERCENT EXCEEDS	22		11		23	
50 PERCENT EXCEEDS	6.0		4.6		8.3	
90 PERCENT EXCEEDS	1.4		2.3		1.7	

01411485 MAURICE RIVER AT BROTMANVILLE, NJ

LOCATION.--Lat 39°31'19", long 75°04'25", Salem County, Hydrologic Unit 02040206, on right bank at downstream side of bridge on Garden Road, 1.3 mi upstream from Blackwater Branch, 2.1 mi downstream from Willow Grove Lake, and 0.5 mi east of Brotmanville.

DRAINAGE AREA.--88.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to September 1992.

GAGE.--Water-stage recorder. Datum of gage is 51.98 ft above sea level.

REMARKS.--Records good. Some regulation from Willow Grove Lake and other lakes upstream. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	56	97	48
2	---	---	---	---	---	---	---	---	---	54	92	49
3	---	---	---	---	---	---	---	---	---	53	74	59
4	---	---	---	---	---	---	---	---	---	79	65	56
5	---	---	---	---	---	---	---	---	---	82	61	49
6	---	---	---	---	---	---	---	---	220	75	55	60
7	---	---	---	---	---	---	---	---	270	54	48	59
8	---	---	---	---	---	---	---	---	258	57	46	63
9	---	---	---	---	---	---	---	---	226	55	45	44
10	---	---	---	---	---	---	---	---	164	53	e43	61
11	---	---	---	---	---	---	---	---	97	50	e45	e65
12	---	---	---	---	---	---	---	---	76	47	51	e46
13	---	---	---	---	---	---	---	---	85	e45	47	e48
14	---	---	---	---	---	---	---	---	65	e43	53	e48
15	---	---	---	---	---	---	---	---	69	44	71	e46
16	---	---	---	---	---	---	---	---	78	45	83	e46
17	---	---	---	---	---	---	---	---	63	44	99	45
18	---	---	---	---	---	---	---	---	61	e43	129	e43
19	---	---	---	---	---	---	---	---	62	e43	124	e42
20	---	---	---	---	---	---	---	---	83	e42	116	e41
21	---	---	---	---	---	---	---	---	60	e41	96	e39
22	---	---	---	---	---	---	---	---	70	e41	79	e40
23	---	---	---	---	---	---	---	---	63	63	66	e41
24	---	---	---	---	---	---	---	---	53	83	46	e40
25	---	---	---	---	---	---	---	---	87	75	51	e48
26	---	---	---	---	---	---	---	---	102	82	63	105
27	---	---	---	---	---	---	---	---	97	98	55	111
28	---	---	---	---	---	---	---	---	86	89	51	113
29	---	---	---	---	---	---	---	---	64	75	72	105
30	---	---	---	---	---	---	---	---	56	58	65	87
31	---	---	---	---	---	---	---	---	---	52	44	---
TOTAL	---	---	---	---	---	---	---	---	---	1821	2132	1747
MEAN	---	---	---	---	---	---	---	---	---	58.7	68.8	58.2
MAX	---	---	---	---	---	---	---	---	---	98	129	113
MIN	---	---	---	---	---	---	---	---	---	41	43	39
CFSM	---	---	---	---	---	---	---	---	---	.67	.78	.66
IN.	---	---	---	---	---	---	---	---	---	.77	.90	.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1992, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	58.7	68.8	58.2
MAX	---	---	---	---	---	---	---	---	---	58.7	68.8	58.2
(WY)	---	---	---	---	---	---	---	---	---	1992	1992	1992
MIN	---	---	---	---	---	---	---	---	---	58.7	68.8	58.2
(WY)	---	---	---	---	---	---	---	---	---	1992	1992	1992

SUMMARY STATISTICS	JUNE TO SEPTEMBER 1992
AVERAGE FLOW	---
HIGHEST DAILY MEAN	270 JUN 6
LOWEST DAILY MEAN	39 SEP 21
INSTANTANEOUS PEAK FLOW	277 JUN 6
INSTANTANEOUS PEAK STAGE	6.78 JUN 6
INSTANTANEOUS LOW FLOW	---

e Estimated.

01411485 MAURICE RIVER AT BROTMANVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1991 to August 1992 (discontinued).

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPBEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
14...	1100	E58	118	6.8	7.5	11.1	92	E2.1	<20	<20
JUN 1992										
18...	1130	69	73	6.7	21.0	10.0	112	E1.6	<20	<10
AUG										
06...	1100	56	75	6.6	22.0	8.5	97	<1.0	8	<10

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
14...	24	5.3	2.7	9.7	2.6	9.3	9.2	17	<0.1
JUN 1992									
18...	20	4.4	2.2	4.8	1.7	8.3	7.1	7.8	<0.1
AUG									
06...	21	4.7	2.3	4.8	1.6	9.4	7.2	8.9	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
14...	5.6	68	0.007	0.006	2.17	2.17	0.46	0.57	0.86
JUN 1992									
18...	4.7	43	0.009	0.008	1.31	1.25	0.06	0.06	0.65
AUG									
06...	3.1	44	0.007	0.007	1.34	1.23	0.05	<0.03	0.45

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
14...	0.71	3.0	2.9	0.28	<0.02	25	0.2	8	--
JUN 1992									
18...	0.51	2.0	1.8	0.03	<0.02	9.4	0.2	13	2.4
AUG									
06...	0.26	1.8	1.5	0.13	<0.02	5.1	0.4	3	0.45

01411485 MAURICE RIVER AT BROTMANVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPBEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 18...	1130	23	<1	<10	20	<1	<1	<1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 18...	1100	<1	50	<0.10	3	<1	<10

01411495 BLACKWATER BRANCH AT NORMA, NJ

LOCATION.--Lat 39°30'20", long 75°04'22", Salem County, Hydrologic Unit 02040206, on right bank 25 ft upstream from bridge on Maurice River Parkway, 0.7 mi northeast of Norma, and 0.4 mi from mouth.

DRAINAGE AREA.--12.5 mi^2.

PERIOD OF RECORD.--August to September 1992.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 51.58 ft above sea level.

REMARKS.--Records good. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	9.0
2	---	---	---	---	---	---	---	---	---	---	---	8.9
3	---	---	---	---	---	---	---	---	---	---	---	9.1
4	---	---	---	---	---	---	---	---	---	---	---	9.9
5	---	---	---	---	---	---	---	---	---	---	---	9.5
6	---	---	---	---	---	---	---	---	---	---	---	8.9
7	---	---	---	---	---	---	---	---	---	---	---	9.5
8	---	---	---	---	---	---	---	---	---	---	---	9.1
9	---	---	---	---	---	---	---	---	---	---	---	8.9
10	---	---	---	---	---	---	---	---	---	---	---	8.9
11	---	---	---	---	---	---	---	---	---	---	---	9.4
12	---	---	---	---	---	---	---	---	---	---	e10	8.6
13	---	---	---	---	---	---	---	---	---	---	9.6	8.4
14	---	---	---	---	---	---	---	---	---	---	11	8.3
15	---	---	---	---	---	---	---	---	---	---	13	8.3
16	---	---	---	---	---	---	---	---	---	---	14	8.3
17	---	---	---	---	---	---	---	---	---	---	17	8.2
18	---	---	---	---	---	---	---	---	---	---	28	8.1
19	---	---	---	---	---	---	---	---	---	---	14	8.1
20	---	---	---	---	---	---	---	---	---	---	12	8.0
21	---	---	---	---	---	---	---	---	---	---	11	7.9
22	---	---	---	---	---	---	---	---	---	---	11	8.1
23	---	---	---	---	---	---	---	---	---	---	10	8.3
24	---	---	---	---	---	---	---	---	---	---	10	8.1
25	---	---	---	---	---	---	---	---	---	---	9.8	8.7
26	---	---	---	---	---	---	---	---	---	---	9.7	23
27	---	---	---	---	---	---	---	---	---	---	9.6	12
28	---	---	---	---	---	---	---	---	---	---	9.8	10
29	---	---	---	---	---	---	---	---	---	---	9.6	9.8
30	---	---	---	---	---	---	---	---	---	---	9.2	9.2
31	---	---	---	---	---	---	---	---	---	---	9.1	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	280.5
MEAN	---	---	---	---	---	---	---	---	---	---	---	9.35
MAX	---	---	---	---	---	---	---	---	---	---	---	23
MIN	---	---	---	---	---	---	---	---	---	---	---	7.9
CFSM	---	---	---	---	---	---	---	---	---	---	---	.75
IN.	---	---	---	---	---	---	---	---	---	---	---	.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1992, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	---	---	9.35
MAX	---	---	---	---	---	---	---	---	---	---	---	9.35
(WY)	---	---	---	---	---	---	---	---	---	---	---	1992
MIN	---	---	---	---	---	---	---	---	---	---	---	9.35
(WY)	---	---	---	---	---	---	---	---	---	---	---	1992

SUMMARY STATISTICS	AUGUST TO SEPTEMBER 1992
AVERAGE FLOW	---
HIGHEST DAILY MEAN	28 AUG 18
LOWEST DAILY MEAN	7.9 SEP 21
INSTANTANEOUS PEAK FLOW	34 AUG 18
INSTANTANEOUS PEAK STAGE	4.38 AUG 18
INSTANTANEOUS LOW FLOW	7.7 SEP 24

e Estimated.

01411500 MAURICE RIVER AT NORMA, NJ
(National stream quality accounting network station)

LOCATION.--Lat 39°29'42", long 75°04'38", Salem County, Hydrologic Unit 02040206, on right bank just upstream from bridge on Almond Road (State Route 540) at Norma, and 0.8 mi downstream from Blackwater Branch.

DRAINAGE AREA.--112 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1932 to current year. Monthly discharge only for December 1933, published in WSP 1302.

REVISED RECORDS.--WSP 1382: 1933. WDR NJ-79-1: 1967(P). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Dec. 27, 1937. Datum of gage is 46.94 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Occasional regulation by ponds above station. Several measurments of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 7	Unknown	*390	Unknown	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	81	80	126	102	116	141	100	164	e84	e135	70
2	93	82	95	122	100	110	133	97	e143	e81	e130	70
3	91	81	137	118	96	106	125	95	e130	e80	e110	79
4	78	79	184	129	94	102	120	92	e120	e114	e98	84
5	79	77	174	135	93	100	117	90	e130	e116	e92	70
6	82	74	172	132	93	98	114	88	e290	e108	e82	82
7	83	73	167	129	91	108	105	86	e350	e81	e72	80
8	80	73	151	126	92	124	99	99	e335	e85	e69	90
9	79	71	132	121	93	126	104	113	e290	e82	e68	62
10	78	71	162	117	91	125	104	120	e210	e79	e64	79
11	77	84	160	111	89	136	109	124	e135	e75	e68	92
12	77	86	156	106	89	137	108	123	e110	e70	80	65
13	75	86	150	104	89	134	106	116	e123	e67	74	69
14	75	82	158	104	89	128	104	109	e98	e64	82	68
15	89	78	139	104	95	122	102	102	e104	e66	100	66
16	122	75	138	102	128	116	101	99	e110	e67	118	65
17	124	73	133	98	129	112	104	97	e94	e66	135	64
18	154	73	128	96	133	110	106	95	e91	e64	178	62
19	135	72	122	96	134	131	111	93	e93	e64	165	61
20	127	71	113	94	131	144	113	88	e120	e63	154	59
21	128	71	111	93	125	148	112	86	e90	e62	132	57
22	108	76	111	93	119	149	111	82	e105	e62	110	57
23	105	91	111	97	115	151	112	66	e94	e94	99	59
24	96	91	111	113	114	145	108	68	e79	e124	70	57
25	89	86	110	116	111	138	106	71	e122	e109	76	64
26	88	80	109	115	122	134	104	72	e142	e119	85	143
27	87	76	106	111	125	155	104	77	e135	e137	84	145
28	85	75	104	109	123	155	103	78	e120	e125	72	143
29	83	73	118	106	121	155	102	76	e96	e108	97	136
30	79	73	130	104	---	149	100	72	e84	e87	90	117
31	77	---	129	102	---	146	---	123	---	e78	66	---
TOTAL	2924	2334	4101	3429	3126	4010	3288	2897	4307	2681	3055	2415
MEAN	94.3	77.8	132	111	108	129	110	93.5	144	86.5	98.5	80.5
MAX	154	91	184	135	134	155	141	124	350	137	178	145
MIN	75	71	80	93	89	98	99	66	79	62	64	57
CFSM	.84	.69	1.18	.99	.96	1.15	.98	.83	1.28	.77	.88	.72
IN.	.97	.78	1.36	1.14	1.04	1.33	1.09	.96	1.43	.89	1.01	.80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1992, BY WATER YEAR (WY)

MEAN	115	142	167	192	201	228	225	191	149	125	127	125
MAX	266	330	385	380	418	427	437	387	291	333	327	591
(WY)	1990	1973	1973	1936	1939	1979	1984	1958	1979	1975	1958	1940
MIN	48.6	46.7	57.1	64.7	95.7	97.2	90.9	79.5	57.7	35.6	34.6	40.6
(WY)	1966	1966	1966	1966	1981	1981	1966	1977	1966	1966	1966	1965

01411500 MAURICE RIVER AT NORMA, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1933 - 1992	
ANNUAL TOTAL	53386		38567			
ANNUAL MEAN	146		105		165	
HIGHEST ANNUAL MEAN					253	1973
LOWEST ANNUAL MEAN					67.4	1966
HIGHEST DAILY MEAN	531	Jan 13	350	Jun 7	5260	Sep 2 1940
LOWEST DAILY MEAN	54	Aug 14	57	Sep 21	23	Sep 8 1964
ANNUAL SEVEN-DAY MINIMUM	60	Sep 7	59	Sep 18	23	Sep 7 1966
INSTANTANEOUS PEAK FLOW			390e	Jun 7	7360a	Sep 2 1940
INSTANTANEOUS PEAK STAGE			---		8.72	Sep 2 1940
INSTANTANEOUS LOW FLOW			55	Sep 25	23	Sep 8 1964
ANNUAL RUNOFF (CFSM)	1.31		.94		1.48	
ANNUAL RUNOFF (INCHES)	17.73		12.81		20.06	
10 PERCENT EXCEEDS	244		140		283	
50 PERCENT EXCEEDS	128		102		145	
90 PERCENT EXCEEDS	74		70		69	

a From rating curve extended above 3,000 ft^3/s, highest since 1867.
e Estimated.

01411500 MAURICE RIVER AT NORMA, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923, 1953, 1960-62, 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1980 to November 1986 (discontinued).
WATER TEMPERATURE: October 1966 to January 1968 (once daily), January 1980 to November 1986 (discontinued).
SUSPENDED-SEDIMENT DISCHARGE: February 1965 to January 1968.

INSTRUMENTATION.--Water-quality monitor, January 1980 to November 1986.

REMARKS.--Missing continuous water-quality records are the result of malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 151 microsiemens, Jan. 25, 1984; 52 microsiemens, June 16, 1982.
WATER TEMPERATURE: Maximum, 28.0°C, July 21, 1980; minimum 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 1991										
19...	1100	73	80	6.5	9.0	1.4	11.0	95	--	K12
JAN 1992										
23...	1100	93	86	6.4	2.0	2.1	12.0	88	K5	K17
APR										
01...	1200	141	80	6.4	11.0	1.1	11.7	108	K1	K85
MAY										
28...	1205	77	77	6.5	16.0	1.0	9.6	97	K74	K12
JUL										
27...	1130	141	72	6.6	22.0	1.9	7.5	87	K210	1000
SEP										
16...	1100	65	79	7.0	19.0	0.50	8.9	96	32	760

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV 1991										
19...	20	4.2	2.4	4.9	2.0	5.0	4.0	7	7.6	9.8
JAN 1992										
23...	22	4.6	2.5	5.1	2.0	5.0	4.0	6	10	11
APR										
01...	21	4.4	2.3	5.3	1.5	--	--	*5.3	9.6	8.6
MAY										
28...	19	4.0	2.3	5.2	1.7	10	8.0	8	6.7	8.9
JUL										
27...	21	5.1	2.0	4.8	1.7	--	--	--	7.2	8.3
SEP										
16...	19	4.1	2.2	5.0	1.9	9.8	8.0	8	6.4	8.6

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
NOV 1991									
19...	<0.1	6.3	50	<0.01	<0.01	2.20	2.20	0.03	0.03
JAN 1992									
23...	0.2	7.4	56	<0.01	<0.01	2.40	2.50	0.03	0.03
APR									
01...	0.2	5.0	48	<0.01	<0.01	1.60	1.70	0.02	0.03
MAY									
28...	<0.1	3.9	38	<0.01	<0.01	0.05	<0.05	0.02	0.03
JUL									
27...	<0.1	3.6	43	<0.01	<0.01	1.00	0.98	0.05	0.05
SEP									
16...	<0.1	3.7	44	<0.01	<0.01	1.60	1.60	0.02	0.03

* Laboratory determination.

01411500 MAURICE RIVER AT NORMA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1991									
19...	<0.2	--	<0.01	<0.01	<0.01	0.01	1	0.20	40
JAN 1992									
23...	<0.2	--	<0.01	0.02	<0.01	<0.01	7	1.8	44
APR									
01...	0.2	1.8	<0.01	<0.01	<0.01	<0.01	6	2.3	27
MAY									
28...	<0.2	--	0.02	0.02	<0.01	<0.01	6	1.2	18
JUL									
27...	0.4	1.4	<0.01	<0.01	0.01	<0.01	21	8.0	50
SEP									
16...	0.2	1.8	<0.01	<0.01	<0.01	<0.01	11	1.9	89

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
NOV 1991							
19...	1100	50	51	<3	110	<4	17
APR 1992							
01...	1200	100	64	<3	130	<4	23
JUL							
27...	1130	80	48	<3	280	<4	19
SEP							
16...	1100	40	50	<3	170	<4	12

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV 1991						
19...	<10	<1	<1	<1.0	25	<6
APR 1992						
01...	<10	1	<1	<1.0	28	<6
JUL						
27...	<10	1	<1	<1.0	25	<6
SEP						
16...	<10	2	<1	<1.0	25	<6

01411800 MAURICE RIVER NEAR MILLVILLE, NJ

LOCATION.--Lat 39°26'52", long 75°04'22", Salem County, Hydrologic Unit 02040206, on left bank at downstream side of bridge on Sherman Avenue (State Route 552), 1.1 mi downstream from Muddy Run, 3.2 mi northwest of Millville, and 3.3 mi upstream from Union Lake Dam.

DRAINAGE AREA.--191 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to September 1992.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 21.77 ft above sea level (levels by EBASCO Environmental).

REMARKS.--No estimated daily discharges. Records good. Some regulation from Willow Grove and Rainbow Lakes and other lakes above headwaters. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	112
2	---	---	---	---	---	---	---	---	---	---	---	113
3	---	---	---	---	---	---	---	---	---	---	---	121
4	---	---	---	---	---	---	---	---	---	---	---	152
5	---	---	---	---	---	---	---	---	---	---	---	132
6	---	---	---	---	---	---	---	---	---	---	---	122
7	---	---	---	---	---	---	---	---	---	---	---	130
8	---	---	---	---	---	---	---	---	---	---	---	139
9	---	---	---	---	---	---	---	---	---	---	---	115
10	---	---	---	---	---	---	---	---	---	---	---	115
11	---	---	---	---	---	---	---	---	---	---	---	139
12	---	---	---	---	---	---	---	---	---	---	---	157
13	---	---	---	---	---	---	---	---	---	---	---	164
14	---	---	---	---	---	---	---	---	---	---	---	107
15	---	---	---	---	---	---	---	---	---	---	---	101
16	---	---	---	---	---	---	---	---	---	---	---	98
17	---	---	---	---	---	---	---	---	---	---	---	98
18	---	---	---	---	---	---	---	---	---	---	---	96
19	---	---	---	---	---	---	---	---	---	---	---	93
20	---	---	---	---	---	---	---	---	---	---	250	90
21	---	---	---	---	---	---	---	---	---	---	224	89
22	---	---	---	---	---	---	---	---	---	---	186	91
23	---	---	---	---	---	---	---	---	---	---	167	87
24	---	---	---	---	---	---	---	---	---	---	127	82
25	---	---	---	---	---	---	---	---	---	---	121	98
26	---	---	---	---	---	---	---	---	---	---	123	299
27	---	---	---	---	---	---	---	---	---	---	135	271
28	---	---	---	---	---	---	---	---	---	---	124	249
29	---	---	---	---	---	---	---	---	---	---	150	204
30	---	---	---	---	---	---	---	---	---	---	138	165
31	---	---	---	---	---	---	---	---	---	---	121	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	4029
MEAN	---	---	---	---	---	---	---	---	---	---	---	134
MAX	---	---	---	---	---	---	---	---	---	---	---	299
MIN	---	---	---	---	---	---	---	---	---	---	---	82
CFSM	---	---	---	---	---	---	---	---	---	---	---	.70
IN.	---	---	---	---	---	---	---	---	---	---	---	.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1992, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	---	---	134
MAX	---	---	---	---	---	---	---	---	---	---	---	134
(WY)	---	---	---	---	---	---	---	---	---	---	---	1992
MIN	---	---	---	---	---	---	---	---	---	---	---	134
(WY)	---	---	---	---	---	---	---	---	---	---	---	1992

SUMMARY STATISTICS	AUGUST TO SEPTEMBER 1992
AVERAGE FLOW	---
HIGHEST DAILY MEAN	299 SEP 26
LOWEST DAILY MEAN	82 SEP 24
INSTANTANEOUS PEAK FLOW	337 SEP 26
INSTANTANEOUS PEAK STAGE	6.51 SEP 26
INSTANTANEOUS LOW FLOW	81 SEP 24

01411800 MAURICE RIVER NEAR MILLVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968, 1975-78, 1991 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
JAN 1992										
22...	1130	E140	112	6.5	8.5	10.7	90	<1.0	60	10
APR										
14...	1130	E160	124	6.7	12.0	10.4	97	E1.2	<20	<10

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 1992									
22...	26	5.5	2.9	6.8	2.3	9.9	12	15	0.2
APR									
14...	25	5.3	2.9	8.0	2.6	9.0	9.6	14	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
JAN 1992									
22...	7.5	71	0.005	0.007	2.74	2.84	0.33	0.25	0.62
APR									
14...	4.3	62	0.014	0.015	2.12	2.12	0.34	0.35	0.58

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JAN 1992									
22...	0.55	3.4	3.4	<0.02	<0.02	--	0.2	3	--
APR									
14...	0.53	2.7	2.6	0.02	<0.02	2.8	0.4	5	--

01412800 COHANSEY RIVER AT SEELEY, NJ

LOCATION.--Lat 39°28'21", long 75°15'21", Cumberland County, Hydrologic Unit 02040206, on right bank just downstream from 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 mi^2.

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
12...	1100	28	228	7.1	7.0	11.6	95	E1.5	490	20
FEB 1992										
13...	1030	25	234	6.9	1.5	13.2	93	1.2	230	80
APR										
27...	1200	24	218	7.3	14.0	11.6	114	E1.6	80	90
JUN										
01...	0915	58	192	6.5	16.0	8.2	83	E1.4	1600	530
JUL										
21...	0845	17	247	6.6	20.5	6.7	74	<1.0	170	260

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
12...	60	12	7.4	14	4.8	16	25	27	0.1
FEB 1992									
13...	60	12	7.4	16	4.0	16	27	28	0.1
APR									
27...	64	13	7.6	11	3.9	17	27	28	0.1
JUN									
01...	55	11	6.7	9.6	3.7	18	23	22	<0.1
JUL									
21...	56	11	6.9	21	5.1	24	22	34	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
12...	8.9	132	0.031	0.031	5.31	5.22	0.13	0.21	0.23
FEB 1992									
13...	9.0	140	0.018	0.017	6.15	6.15	0.09	0.06	0.07
APR									
27...	6.2	126	0.022	0.021	4.40	4.40	<0.03	<0.03	0.16
JUN									
01...	6.0	107	0.022	0.019	3.35	3.15	<0.03	<0.03	0.83
JUL									
21...	7.2	140	0.027	0.027	4.06	4.08	0.06	0.07	0.13

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
12...	<0.03	5.5	--	<0.02	0.08	2.4	0.4	6	0.45
FEB 1992									
13...	<0.03	6.2	--	0.05	<0.02	1.6	0.3	16	1.1
APR									
27...	0.06	4.6	4.5	0.03	<0.02	2.1	0.4	9	0.58
JUN									
01...	0.20	4.2	3.4	0.07	--	3.8	0.5	14	2.2
JUL									
21...	<0.03	4.2	--	0.11	--	2.5	1.7	11	0.50

01412800 COHANSEY RIVER AT SEELEY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)
NOV 1991 12...	1100	--	5	10	2.2	2200	1700	<0.1	19	--
JUN 1992 01...	0915	19	--	--	--	--	--	--	--	1

DATE	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991 12...	26	--	--	<1	--	3	<5	--	10	--
JUN 1992 01...	--	<10	<1	--	<1	--	--	2	--	810

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991 12...	7600	--	10	--	46	--	0.19	--	<10	--
JUN 1992 01...	--	2	--	70	--	<0.10	--	2	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991 12...	<1	--	50	1	<1.0	<0.1	3.0	11	27	13
JUN 1992 01...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991 12...	0.6	<1.0	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10
JUN 1992 01...	--	--	--	--	--	--	--	--	--	--

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highway 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,070 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area. WDR NY-86-1: 1979-80.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft above sea level. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Bureau prior to June 20, 1914.

REMARKS.--Records good. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi^2 of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi^2 of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Telephone gage-height telemeter and satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OR RECORD.--Maximum discharge, 233,000 ft^3/s, Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft^3/s, on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft, Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft^3/s, Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft^3/s, Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft^3/s, by velocity-area studies; maximum gage height, 25.5 ft, Mar. 8, 1904 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,400 ft^3/s, Nov. 23, gage height, 8.08 ft; minimum, 692 ft^3/s, Nov. 2, gage height, 1.57 ft; minimum daily, 785 ft^3/s, Nov. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1600	985	2600	2490	e2900	3290	6010	5130	17600	2130	3650	1440
2	1540	785	2810	2420	e2300	3510	5720	4820	14500	1860	3700	1040
3	1520	945	4760	3010	e2600	3440	5230	5040	9210	1680	3300	1840
4	1560	995	9370	3260	3280	3180	4700	5710	8100	1570	2960	1820
5	1510	1010	7210	3000	2970	3240	4360	5070	6570	1600	2820	1740
6	1570	1080	5690	3940	2960	3620	4090	4710	8970	1660	3060	1720
7	1660	1380	4450	3880	2930	3630	3800	4620	11600	2060	2520	1610
8	1820	1480	3910	3530	2290	4500	3720	4600	8710	2140	1870	1690
9	1520	1450	4050	3220	1600	5720	3620	4400	7140	2170	1780	1660
10	1610	1290	4490	3150	1830	5550	3620	4100	6180	2440	3040	1690
11	1570	1340	4360	2880	2800	7960	3550	4130	5130	2140	3220	2200
12	1660	1410	3900	2320	2370	16200	4380	3710	3890	1890	2780	2370
13	1510	1550	3950	2430	2210	10500	6640	3370	3090	1440	2370	1760
14	1220	1480	4180	3080	2330	7110	5650	2770	2410	2230	2220	1530
15	1180	1230	5460	5510	2140	5700	5070	2990	2840	2500	1750	1520
16	1460	1240	5190	e5200	1310	4890	4730	2610	2730	2850	1690	1530
17	1750	1170	4550	e4000	2180	4360	5370	2800	2550	3270	1710	1790
18	3140	1140	4070	e3400	3160	4010	11200	2980	2210	2590	1720	1740
19	2520	946	3550	e2900	3110	4210	15400	2720	2400	2340	1870	1590
20	2150	962	2800	e2700	3150	3730	13300	2490	2090	2600	1610	1520
21	1960	1060	3110	e3000	3680	3180	10200	2040	1740	2750	1800	1560
22	1180	1580	3250	3270	3370	2610	8800	2240	2090	2190	1350	2000
23	1190	15000	2930	3380	2490	2970	9320	1820	2180	2140	1400	2010
24	981	15700	2650	4520	2980	2870	8450	1900	2470	2220	1510	2030
25	920	9140	2360	5180	3530	2690	9130	2200	2570	2110	1650	1900
26	955	6410	2510	3850	3560	2820	10500	2620	2460	1610	1880	1590
27	1340	4940	2150	3460	3670	8080	9350	3060	2030	2510	2030	1400
28	1220	3780	1850	3920	3650	12500	7800	2960	1700	3030	2110	1640
29	1070	3400	1880	3800	3470	8300	6620	2780	1920	2380	1650	1750
30	959	2950	2470	3640	---	6630	5860	2230	2180	2410	1390	1690
31	914	---	3210	3420	---	6120	---	3180	---	2730	1680	---
TOTAL	46759	87828	119720	107760	80820	167120	206190	105800	149260	69240	68090	51370
MEAN	1508	2928	3862	3476	2787	5391	6873	3413	4975	2234	2196	1712
MAX	3140	15700	9370	5510	3680	16200	15400	5710	17600	3270	3700	2370
MIN	914	785	1850	2320	1310	2610	3550	1820	1700	1440	1350	1040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

MEAN	3104	3953	4981	4443	5291	7996	8892	6225	3979	2644	2217	2492
MAX	10440	10310	12320	12750	13730	17520	17930	12670	12650	6680	4513	7928
(WY)	1978	1973	1974	1978	1976	1977	1970	1984	1972	1973	1969	1987
MIN	1001	884	1866	1216	1601	2583	2954	1946	993	699	963	1144
(WY)	1965	1965	1965	1981	1980	1981	1985	1965	1965	1965	1965	1965

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-DISCHARGE RECORDS--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	1313595		1259957			
ANNUAL MEAN	3599		3443		4679	
HIGHEST ANNUAL MEAN					7216	1973
LOWEST ANNUAL MEAN					2028	1965
HIGHEST DAILY MEAN	18600	Mar 5	17600	Jun 1	78300	Jun 30 1973
LOWEST DAILY MEAN	785	Nov 2	785	Nov 2	385	Jul 6 1965
ANNUAL SEVEN-DAY MINIMUM	942	Oct 30	942	Oct 30	432	Jul 1 1965
10 PERCENT EXCEEDS	7320		6250		9980	
50 PERCENT EXCEEDS	2100		2730		2820	
90 PERCENT EXCEEDS	1340		1440		1480	

e Estimated.

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.
CHEMICAL DATA: 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d), 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).
MINOR ELEMENTS DATA: 1970 (a), 1972-73 (a), 1974-76 (c), 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).
PESTICIDE DATA: 1974 (a), 1987 (b), 1988-89 (c), 1990 (b).
ORGANIC DATA: OC--1974 (b), 1975 (d).
NUTRIENT DATA: 1968 (a), 1969-76 (d), 1987 (b), 1988-89 (c), 1990 (b).
BIOLOGICAL DATA:
Bacteria--1973-76 (d).
Phytoplankton--1974 (b), 1975-76 (c).
Periphyton--1976 (a).
SEDIMENT DATA: 1959 (c), 1976 (c), 1988 (b), 1989 (c), 1990-91 (b), 1992 (a).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1973.
WATER TEMPERATURES: February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

INSTRUMENTATION.--Water-temperature digital recorder since January 1973, provides one-hour-interval punches.

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed by USGS laboratories.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1957-59, 1973-81, 1983-84, 1988-91), 30.0 C, July 13, 1981; minimum (water years 1958-60, 1973, 1975-91), 0.0 C, on many days during winter periods, except 1984.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5 C, July 23; minimum, 0.0 C, Jan. 8, 9, 10, 12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
OCT 30...	1200	771	92	7.1	10.5	755	10.9	99	60

DATE	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 30...	<1	110	50	4	<10	<0.10	2	40

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 30...	1200	771	1	2.1

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	13.0	13.5	12.0	10.5	11.5	7.0	6.0	6.5	0.0	0.0	0.0
2	17.0	14.0	15.5	12.5	11.5	12.0	7.0	7.0	7.0	0.5	0.0	0.5
3	18.0	17.0	17.5	11.5	10.0	10.5	7.0	6.0	6.0	1.5	0.5	1.0
4	19.0	17.5	18.5	10.0	8.0	9.0	6.0	4.0	5.0	1.5	1.5	1.5
5	19.0	18.0	18.5	8.0	6.5	7.0	4.0	2.5	3.0	1.5	1.5	1.5
6	19.0	17.0	18.5	6.5	5.5	6.0	2.5	2.5	2.5	1.5	1.5	1.5
7	17.0	14.5	15.5	6.0	5.5	5.5	2.5	1.5	2.0	1.5	1.0	1.5
8	14.5	13.0	14.0	5.5	5.0	5.0	3.0	2.0	2.5	1.0	0.5	0.5
9	14.5	13.0	14.0	5.0	4.0	4.5	4.5	3.0	4.0	0.5	0.5	0.5
10	15.0	13.5	14.5	4.5	4.0	4.0	5.0	4.5	4.5	1.0	0.5	0.5
11	15.5	14.0	14.5	5.0	4.5	4.5	4.5	4.0	4.5	1.0	0.5	0.5
12	14.0	13.0	13.5	5.0	4.5	5.0	4.5	4.0	4.5	0.5	0.0	0.5
13	13.5	12.5	13.0	5.0	4.5	5.0	5.0	4.5	5.0	2.0	0.5	1.0
14	12.5	11.0	12.0	6.0	5.0	5.5	6.0	5.0	5.5	3.0	2.0	2.5
15	12.0	11.0	11.5	6.0	5.5	5.5	5.5	4.0	4.5	2.5	0.0	1.0
16	12.5	11.5	12.0	7.0	6.0	6.5	4.0	2.0	3.0	0.0	0.0	0.0
17	12.5	11.0	11.5	6.0	4.5	5.0	2.0	1.0	1.5	0.0	0.0	0.0
18	13.0	10.5	12.0	4.5	3.5	4.5	1.0	0.0	0.5	0.0	0.0	0.0
19	13.5	11.5	12.5	5.5	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
20	12.0	10.5	11.0	7.5	5.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0
21	11.0	9.5	10.5	9.0	7.5	8.5	0.5	0.0	0.5	0.0	0.0	0.0
22	11.0	9.5	10.5	9.5	9.0	9.0	1.0	0.5	0.5	0.0	0.0	0.0
23	12.0	9.5	10.5	10.0	9.5	10.0	0.5	0.0	0.5	0.0	0.0	0.0
24	12.5	11.0	11.5	10.0	9.0	10.0	0.5	0.0	0.5	0.0	0.0	0.0
25	13.5	11.5	12.5	9.0	7.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
26	14.5	13.0	14.0	7.0	5.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
27	15.0	14.0	14.5	5.0	4.0	4.0	0.5	0.0	0.5	0.0	0.0	0.0
28	15.0	13.5	14.5	4.0	3.5	3.5	0.5	0.5	0.5	0.0	0.0	0.0
29	13.5	11.5	12.0	5.0	3.5	4.5	0.5	0.5	0.5	0.0	0.0	0.0
30	12.0	10.0	10.5	6.0	5.0	5.5	1.0	0.5	0.5	0.5	0.0	0.0
31	11.0	10.5	10.5	---	---	---	0.5	0.0	0.0	0.5	0.5	0.5
MONTH	19.0	9.5	13.5	12.5	3.5	6.5	7.0	0.0	2.5	3.0	0.0	0.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.5	0.0	0.0	1.0	0.5	0.5	5.0	4.5	5.0	13.0	11.0	12.0
2	0.5	0.0	0.0	1.0	1.0	1.0	5.5	4.0	4.5	15.0	12.0	13.5
3	0.5	0.0	0.0	2.0	1.0	1.5	4.5	3.5	4.0	16.0	14.5	15.0
4	0.0	0.0	0.0	3.5	1.5	2.5	5.5	3.5	4.0	15.0	13.5	14.5
5	0.0	0.0	0.0	4.5	2.5	3.5	5.5	4.0	4.5	13.5	11.5	12.5
6	0.5	0.0	0.0	4.0	3.0	3.5	7.0	4.5	5.5	12.5	11.0	11.5
7	0.5	0.5	0.5	3.0	2.5	2.5	7.0	5.5	6.5	12.0	10.0	11.0
8	0.5	0.5	0.5	3.5	2.5	3.0	9.5	6.0	8.0	12.0	11.0	11.5
9	0.5	0.5	0.5	4.5	3.5	4.0	8.0	7.0	7.5	13.5	11.5	12.5
10	0.5	0.0	0.5	5.5	4.0	4.5	10.0	7.0	8.5	14.5	13.0	14.0
11	0.0	0.0	0.0	6.0	4.5	5.5	9.0	8.0	8.5	16.5	14.0	15.5
12	0.5	0.0	0.5	4.5	2.0	3.0	9.0	7.5	8.0	18.0	15.0	16.5
13	0.5	0.5	0.5	2.0	1.0	1.5	7.5	6.0	7.0	19.5	16.5	18.0
14	0.5	0.5	0.5	1.0	0.5	1.0	8.5	6.0	7.0	21.0	17.5	19.0
15	0.5	0.5	0.5	1.0	0.5	1.0	9.0	7.0	8.0	19.5	17.0	18.5
16	---	---	---	1.0	0.5	1.0	8.5	7.5	8.0	17.0	16.0	16.5
17	---	---	---	1.0	0.5	1.0	7.5	6.5	7.0	16.5	15.5	16.0
18	---	---	---	2.5	0.5	1.5	6.5	6.0	6.0	17.5	15.5	16.5
19	---	---	---	2.0	1.0	1.5	6.0	6.0	6.0	18.5	15.0	16.5
20	2.0	1.0	1.5	3.0	1.0	2.0	8.0	6.0	6.5	19.5	15.0	17.5
21	2.5	1.0	1.5	3.0	1.5	2.0	10.0	8.0	9.0	20.5	16.0	18.5
22	1.5	1.0	1.5	2.0	1.0	1.5	12.0	10.0	11.0	21.5	18.5	20.0
23	3.0	1.5	2.0	2.5	0.5	1.5	13.5	11.5	12.5	22.5	18.0	20.5
24	3.0	1.5	2.0	3.0	0.5	2.0	13.5	12.5	13.0	22.0	18.5	20.5
25	1.5	1.5	1.5	4.0	1.0	3.0	13.0	11.0	12.0	18.5	16.5	17.5
26	2.0	1.5	1.5	4.5	3.0	4.0	11.0	10.0	10.5	16.5	15.0	16.0
27	2.5	1.5	2.0	4.5	3.5	4.0	11.0	9.5	10.5	15.0	13.5	14.0
28	2.5	1.5	2.0	3.5	2.5	3.0	11.0	9.5	10.5	16.0	13.0	14.5
29	2.0	0.5	1.5	3.5	2.0	2.5	12.5	10.0	11.0	17.5	14.0	15.5
30	---	---	---	3.5	3.0	3.5	12.0	11.0	11.5	16.0	15.0	15.5
31	---	---	---	5.0	3.5	4.5	---	---	---	15.0	14.5	15.0
MONTH	---	---	---	6.0	0.5	2.5	13.5	3.5	8.0	22.5	10.0	15.5

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.5	14.0	14.0	---	---	---	---	---	---	21.5	19.5	20.5
2	15.5	13.5	14.5	---	---	---	---	---	---	21.0	19.0	20.0
3	17.0	14.5	16.0	---	---	---	---	---	---	20.5	19.5	20.0
4	18.0	16.5	17.5	---	---	---	---	---	---	22.5	19.5	21.0
5	17.5	16.5	17.0	---	---	---	---	---	---	21.0	20.0	20.5
6	16.5	15.5	16.0	---	---	---	---	---	---	21.0	19.5	20.0
7	18.5	16.5	17.5	---	---	---	---	---	---	19.5	19.5	19.5
8	18.5	17.5	18.0	---	---	---	---	---	---	21.0	19.5	20.5
9	19.0	17.5	18.5	---	---	---	---	---	---	22.0	20.0	21.0
10	19.0	17.5	18.5	---	---	---	---	---	---	23.0	20.5	22.0
11	19.5	17.5	18.5	---	---	---	---	---	---	23.0	21.0	22.0
12	20.5	17.5	19.0	---	---	---	---	---	---	21.0	19.5	20.5
13	21.0	19.0	20.0	---	---	---	---	---	---	20.0	18.0	19.5
14	23.5	19.0	21.5	---	---	---	20.5	19.5	20.0	20.0	18.0	19.0
15	23.5	21.0	22.5	---	---	---	20.0	18.5	19.0	20.0	18.0	19.0
16	22.5	20.5	21.5	---	---	---	18.5	18.0	18.5	21.5	19.0	20.0
17	22.5	20.0	21.0	---	---	---	18.5	18.5	18.5	22.5	20.0	21.0
18	21.5	20.0	21.0	---	---	---	20.0	18.5	19.0	22.5	20.5	21.5
19	20.0	19.0	19.5	---	---	---	20.0	19.0	19.5	21.5	20.0	21.0
20	21.0	19.0	20.0	---	---	---	21.0	18.5	20.0	20.5	18.5	19.5
21	20.5	19.0	20.0	---	---	---	21.5	18.5	20.0	19.5	18.5	19.0
22	19.5	16.5	18.0	---	---	---	21.5	19.5	21.0	20.0	19.0	19.5
23	18.5	15.5	17.0	---	---	---	23.0	20.5	22.0	19.0	17.5	18.0
24	18.5	17.0	18.0	---	---	---	23.5	21.5	23.0	17.5	15.5	16.5
25	19.5	17.5	18.5	---	---	---	24.5	22.0	23.5	16.0	14.0	15.0
26	---	---	---	---	---	---	25.5	22.5	23.5	15.5	14.5	15.0
27	---	---	---	---	---	---	26.0	23.0	24.5	16.0	15.0	15.5
28	---	---	---	---	---	---	25.0	22.5	23.5	17.0	15.5	16.0
29	---	---	---	---	---	---	24.5	22.0	23.5	16.5	15.0	16.0
30	---	---	---	---	---	---	23.0	20.5	22.0	15.0	13.5	14.0
31	---	---	---	---	---	---	22.5	21.5	22.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	23.0	13.5	19.0

01437500 NEVERSINK RIVER AT GODEFFROY, NY

LOCATION.--Lat 41°26'28", long 74°36'07", Orange County, Hydrologic Unit 02040104, on right bank just upstream from highway bridge on Graham Road, 0.5 mi downstream from Basher Kill, 0.8 mi southeast of Godeffroy, 1.7 mi south of Cuddebackville, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--307 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to October 1903, July 1937 to current year. Gage heights and discharge measurements, August 1909 to April 1914. Twice-daily figures of discharge, January 1911 to December 1912, which do not represent daily mean discharges because of diurnal fluctuation. August to October 1903, published as "Naversink River at Godeffroy, NY."

REVISED RECORDS.--WSP 1502: 1951 (M). WDR NY-82-1: Drainage area. WDR NY-87-1: 1986.

GAGE.--Water-stage recorder. Datum of gage is 459.66 ft above sea level (levels by Corps of Engineers). Prior to Apr. 30, 1914, nonrecording gages at same site (August to October 1903 at datum 0.98 ft higher).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Prior to 1949, diurnal fluctuation at low and medium flow caused by powerplant at Cuddebackville. Subsequent to June 1953, entire flow from 92.5 mi^2 of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill), impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft^3/s, Aug. 19, 1955, gage height, 12.49 ft, from rating curve extended above 11,000 ft^3/s, on basis of slope-area measurement of peak flow; minimum discharge observed, no flow July 21, 22, 28, 1911, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,160 ft^3/s, June 6, gage height, 7.87 ft; minimum, 78 ft^3/s, Nov. 9, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	124	398	e290	e280	e310	716	425	1680	243	1140	189
2	101	121	373	e280	e240	e295	632	422	1070	226	469	179
3	e96	102	615	e270	e220	e285	559	546	851	210	363	176
4	93	94	816	e310	e200	e280	499	478	709	299	361	191
5	e93	91	667	364	e190	e300	459	437	769	313	377	178
6	e131	88	582	342	e180	e330	420	429	4780	540	306	179
7	e146	86	531	322	e175	350	394	395	2820	341	267	208
8	e128	82	506	304	e170	431	383	373	1920	271	253	203
9	e122	80	556	296	e165	428	371	393	1480	284	309	182
10	e117	79	561	e285	e160	416	397	370	1140	272	366	202
11	e137	93	503	e280	e155	924	398	328	925	244	295	291
12	e204	138	462	277	e150	864	524	299	745	233	258	211
13	e176	128	520	280	e145	668	488	286	614	239	219	174
14	e152	117	734	338	e170	e500	417	274	520	229	215	158
15	192	111	762	e490	179	e430	386	261	455	232	210	148
16	610	116	612	e290	220	e385	376	293	392	409	205	144
17	356	111	e490	e240	288	e360	576	291	347	316	243	146
18	451	103	e470	e220	259	e340	951	273	322	325	292	157
19	e332	99	e440	e210	267	e325	1080	259	318	284	276	154
20	275	97	e420	e205	297	e310	828	241	321	253	240	139
21	234	103	411	e200	273	e300	715	229	306	239	223	119
22	203	449	398	e195	253	e290	693	217	277	233	210	e119
23	172	1740	381	e300	249	e285	748	211	259	228	205	e208
24	151	1070	373	e600	253	e280	635	220	353	275	208	e172
25	164	861	e315	e440	252	294	835	287	447	244	198	e146
26	160	702	e290	e350	328	323	765	258	336	232	531	e162
27	151	595	e280	e300	374	1740	672	235	339	414	350	234
28	145	520	e270	e290	e330	1260	583	232	310	317	272	e204
29	135	470	316	e280	e320	926	517	214	270	259	260	e186
30	132	431	379	e275	---	792	467	203	248	286	232	e165
31	130	---	e310	e305	---	756	---	847	---	345	206	---
TOTAL	5793	9001	14741	9428	6742	15777	17484	10226	25323	8835	9559	5324
MEAN	187	300	476	304	232	509	583	330	844	285	308	177
MAX	610	1740	816	600	374	1740	1080	847	4780	540	1140	291
MIN	93	79	270	195	145	280	371	203	248	210	198	119

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

MEAN	300	368	431	343	415	681	817	550	382	234	232	217
MAX	2033	1094	1227	1053	981	1370	1818	1392	1722	652	1327	705
(WY)	1956	1956	1974	1979	1976	1977	1983	1989	1972	1972	1955	1960
MIN	94.9	86.3	119	72.6	118	297	248	180	111	54.2	76.0	71.1
(WY)	1985	1966	1981	1981	1980	1981	1985	1962	1957	1966	1968	1972

01437500 NEVERSINK RIVER AT GODEFFROY, NY--Continued

WATER-DISCHARGE RECORDS--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1954 - 1992	
ANNUAL TOTAL	115591		138233			
ANNUAL MEAN	317		378		414	
HIGHEST ANNUAL MEAN					704	1956
LOWEST ANNUAL MEAN					215	1965
HIGHEST DAILY MEAN	1750	Mar 4	4780	Jun 6	15900	Aug 19 1955
LOWEST DAILY MEAN	61	Sep 13	79	Nov 10	32	Aug 17 1965
ANNUAL SEVEN-DAY MINIMUM	68	Sep 12	86	Nov 5	38	Aug 11 1965
10 PERCENT EXCEEDS	600		696		868	
50 PERCENT EXCEEDS	274		290		270	
90 PERCENT EXCEEDS	90		139		106	

e Estimated.

01437500 NEVERSINK RIVER AT GODEFFROY, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1987 to October 1991 (discontinued). Records prior to water year 1989 are unpublished and available in files of the Geological Survey.
CHEMICAL DATA: 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).
MINOR ELEMENTS DATA: 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).
PESTICIDE DATA: 1988 (b), 1989 (c), 1990 (b).
NUTRIENT DATA: 1988 (b), 1989 (c), 1990 (b).
SEDIMENT DATA: 1988 (b), 1989 (c), 1990-91 (b), 1992 (a).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
OCT 30...	1100	134	106	7.3	8.0	756	12.2	103	100

DATE	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 30...	<1	110	100	3	<10	<0.10	<1	30

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 30...	1100	134	1	0.36

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, PA, Hydrologic Unit 02040104, on right bank 1,500 ft upstream from toll bridge (on U.S. Route 206) between Montague, NJ and Milford, PA, 0.8 mi downstream from Sawkill Creek, and at river mile 246.3.

DRAINAGE AREA.--3,480 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft above sea level. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft lower.

REMARKS.--Records good except for periods of ice effect, Dec. 19-21 and Jan. 17 to Feb. 20, and periods of shifting control, Oct. 1-15, and July 28 to Sept. 30, which are fair. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, Cliff Lake, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). Several measurements of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft, from floodmark, present datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1740	1040	2940	2830	e3100	3700	7140	5860	17100	2460	4680	1630
2	1680	982	2990	2720	e2400	3790	6740	5520	16200	2280	4500	1080
3	1650	1010	4840	3180	e2500	3800	6170	5710	10600	2020	3640	1720
4	1670	1070	10300	3390	e3500	3490	5480	6400	9230	1800	3370	1880
5	1620	1090	8410	3180	e3000	3490	5060	5730	7720	2020	3370	1880
6	1530	1120	6640	4200	e3100	3910	4630	5250	13700	2110	3340	1710
7	1780	1410	5220	4140	e2900	4020	4410	5180	14900	2570	2820	1720
8	2010	1590	4490	3770	e2600	4880	4210	4980	11400	2420	2390	1690
9	1730	1510	4620	3440	e1600	6200	4110	5120	9420	2540	2110	1760
10	1730	1390	5100	3310	e1500	6140	4110	4600	7960	2780	3120	1690
11	1700	1390	5000	3120	e2900	8170	4090	4500	6640	2620	3650	2540
12	1860	1580	4380	2480	e2400	16600	4750	4120	5120	2330	3210	2560
13	1590	1610	4460	2470	e2200	11800	7350	3700	4280	1530	2680	2050
14	1430	1730	4870	3250	e2300	8630	6350	3160	3340	2530	2490	1590
15	1420	1350	6310	5670	e2400	6970	5670	3110	3370	2810	2160	1700
16	1960	1350	6010	6100	e1400	5950	5170	3100	3360	3430	1890	1580
17	2170	1270	5200	e4400	e2000	5330	5950	3130	3140	3750	1850	1770
18	3770	1270	4570	e4000	e3200	4870	11400	3180	2690	3340	2050	1960
19	3160	1060	e3950	e3400	e3300	4970	15700	3020	2790	2760	2200	1730
20	2630	1030	e3500	e3000	e3400	4630	14400	2710	2810	2820	1990	1590
21	2400	1160	e3400	e3500	3810	4050	11300	2320	2220	3160	1970	1570
22	1540	1910	3570	e3400	3760	3450	9860	2200	2260	2670	1660	2010
23	1310	13400	3330	e3500	2660	3420	10300	2140	2640	2460	1520	2340
24	1290	17400	2880	e4800	2860	3530	9550	1970	2850	2570	1500	2120
25	1130	10500	2580	e5800	3720	3300	9860	2340	3250	2640	1810	2160
26	1090	7630	2630	e4400	3880	3300	11400	2580	2920	1980	2280	1960
27	1490	5830	2400	e3700	4150	8420	10300	3240	2790	2780	2490	1590
28	1380	4480	2070	e4000	4090	13700	8810	3120	2190	3560	2360	1640
29	1180	3830	2030	e4100	4060	10000	7540	2920	2080	2870	1950	2040
30	1110	3450	2520	e3900	---	8000	6690	2590	2540	2690	1490	1860
31	1030	---	3390	e3700	---	7310	---	3230	---	3280	1720	---
TOTAL	53780	95442	134600	116850	84690	189820	228500	116730	181510	81580	78260	55120
MEAN	1735	3181	4342	3769	2920	6123	7617	3765	6050	2632	2525	1837
MAX	3770	17400	10300	6100	4150	16600	15700	6400	17100	3750	4680	2560
MIN	1030	982	2030	2470	1400	3300	4090	1970	2080	1530	1490	1080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

MEAN	3371	5059	6100	5648	6050	10040	11720	7512	4477	3036	2597	2679
MAX	15690	11760	14050	15050	15120	24480	31560	16090	15200	11220	14230	9167
(WY)	1956	1952	1974	1949	1976	1945	1940	1943	1972	1945	1955	1960
MIN	807	995	1968	1318	1748	3191	3322	2215	1214	864	715	892
(WY)	1942	1965	1965	1981	1980	1981	1985	1965	1965	1954	1954	1941

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	1483342		1416882			
ANNUAL MEAN	4064		3871		5685	Unadjusted
HIGHEST ANNUAL MEAN					8621	1952
LOWEST ANNUAL MEAN					2309	1965
HIGHEST DAILY MEAN	21200	Mar 5	17400	Nov 24	187000	Aug 19 1955
LOWEST DAILY MEAN	982	Nov 2	982	Nov 2	412	Aug 23 1954
ANNUAL SEVEN-DAY MINIMUM	1050	Oct 30	1050	Oct 30	565	Jul 1 1965
INSTANTANEOUS PEAK FLOW			25100	Nov 23	250000a	Aug 19 1955
INSTANTANEOUS PEAK STAGE			11.66	Nov 23	35.15	Aug 19 1955
INSTANTANEOUS LOW FLOW			827	Oct 31	382	Aug 24 1954
10 PERCENT EXCEEDS	8390		7410		12000	
50 PERCENT EXCEEDS	2400		3100		3420	
90 PERCENT EXCEEDS	1500		1540		1560	

a From rating curve extended above 90,000 ft^3/s on basis of flood-routing study.
e Estimated.

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-73, 1976-78, July 1991.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
21...	1145	2550	95	7.5	9.5	10.9	96	<1.0	20	11
FEB 1992										
20...	1130	3520	103	7.8	1.0	13.8	99	1.5	<20	<10
APR										
06...	1130	4180	86	7.3	5.0	12.2	96	E1.5	<20	<10
JUN										
23...	1200	2260	89	8.0	16.0	9.6	99	<1.0	<20	30
AUG										
18...	1130	1840	88	7.5	18.5	8.7	94	<1.0	270	130

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
21...	27	8.0	1.6	6.2	0.80	17	10	12	0.1
FEB 1992									
20...	27	8.5	1.5	7.2	0.90	15	11	13	0.1
APR									
06...	22	6.6	1.3	5.3	0.70	10	10	9.6	0.2
JUN									
23...	23	6.8	1.4	5.5	0.70	16	9.5	9.0	<0.1
AUG									
18...	27	8.2	1.6	6.3	0.80	20	8.7	8.7	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
21...	1.3	51	<0.003	0.004	0.15	0.13	0.14	0.07	0.37
FEB 1992									
20...	2.5	56	0.004	0.004	0.57	0.45	<0.03	0.04	0.39
APR									
06...	2.2	44	0.008	0.009	0.41	0.39	0.04	<0.03	0.29
JUN									
23...	1.7	45	0.005	0.005	0.24	0.24	<0.03	<0.03	0.24
AUG									
18...	1.6	49	0.019	0.020	0.22	0.22	<0.03	<0.03	0.20

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
21...	0.21	0.52	0.34	0.06	<0.02	3.0	0.3	3	21
FEB 1992									
20...	0.31	0.96	0.76	0.31	<0.02	2.3	0.5	9	86
APR									
06...	0.16	0.70	0.55	<0.02	<0.02	2.1	0.2	7	79
JUN									
23...	0.26	0.48	0.50	0.03	0.04	3.4	0.2	1	6.1
AUG									
18...	0.17	0.42	0.39	0.03	<0.02	2.1	0.2	1	5.0

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 23...	1200	<10	<1	<10	<10	<1	<1	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 23...	110	<1	30	<0.10	<1	<1	<10

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ

LOCATION.--Lat 41°06'24", long 74°57'09", Sussex County, Hydrologic Unit 02040104, on right bank 1.0 mi upstream from Flatbrookville, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--64.0 mi^2.

PERIOD OF RECORD.--July 1923 to current year.

REVISED RECORDS.--WSP 1432: 1924(M), 1928(M), 1929, 1930(M), 1932, 1933(M), 1936, 1938(M), 1939-40, 1949(M), 1952-53(M). WDR-NJ-80-2: 1970(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Aug. 19, 1929. Datum of gage is 347.73 ft above sea level. Prior to Jan. 6, 1926, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow occasionally regulated by ponds above station. Several measurements of water temperature were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 23	1000	655	3.74	May 31	2330	690	3.81
Mar. 27	1430	650	3.73	June 6	1615	*981	*4.36

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	18	64	61	82	114	197	134	562	56	174	29
2	11	18	62	59	68	111	174	129	328	53	94	28
3	10	17	213	56	74	101	155	143	220	47	67	29
4	10	16	359	59	66	95	142	135	167	51	60	35
5	10	16	218	72	64	90	130	120	162	51	56	32
6	14	16	163	69	58	87	120	123	739	63	48	30
7	27	15	133	61	61	93	112	110	527	55	46	37
8	19	16	116	56	58	127	110	104	339	47	40	39
9	15	15	110	53	53	113	103	152	463	61	71	34
10	13	16	125	57	46	102	105	141	260	55	103	31
11	13	18	114	55	53	352	126	119	193	45	71	40
12	20	30	98	52	53	368	134	105	157	40	77	38
13	22	27	92	50	65	235	114	99	134	39	59	30
14	17	25	100	64	48	186	102	94	115	44	53	28
15	23	23	101	113	51	157	97	88	102	46	51	26
16	105	21	90	78	89	133	93	103	89	82	49	25
17	78	20	77	e46	94	125	158	111	83	66	53	24
18	115	19	74	e51	76	118	209	97	76	79	91	25
19	72	18	68	e63	77	122	234	87	78	65	101	29
20	50	18	e66	e69	85	117	197	76	86	48	75	35
21	39	19	64	e66	75	111	168	69	76	41	61	26
22	34	139	61	e53	70	103	169	64	70	38	53	23
23	29	527	61	70	65	102	185	60	66	41	48	38
24	26	259	64	305	67	93	154	60	81	68	43	36
25	24	164	58	181	73	94	253	81	95	50	40	28
26	23	121	51	146	151	127	242	74	72	43	38	33
27	21	97	52	130	181	512	197	72	123	124	37	40
28	21	84	47	120	149	385	170	70	100	83	40	37
29	20	76	55	96	140	251	155	63	73	60	41	32
30	19	70	75	88	---	209	141	57	62	49	35	27
31	19	---	74	87	---	216	---	293	---	130	32	---
TOTAL	930	1938	3105	2586	2292	5149	4646	3233	5698	1820	1907	944
MEAN	30.0	64.6	100	83.4	79.0	166	155	104	190	58.7	61.5	31.5
MAX	115	527	359	305	181	512	253	293	739	130	174	40
MIN	10	15	47	46	46	87	93	57	62	38	32	23
CFSM	.47	1.01	1.57	1.30	1.23	2.60	2.42	1.63	2.97	.92	.96	.49
IN.	.54	1.13	1.80	1.50	1.33	2.99	2.70	1.88	3.31	1.06	1.11	.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1992, BY WATER YEAR (WY)

MEAN	55.1	96.5	119	118	134	202	203	143	89.0	57.9	52.0	47.7
MAX	306	292	369	367	275	513	570	372	334	333	386	258
(WY)	1956	1928	1974	1979	1951	1936	1983	1989	1972	1928	1955	1933
MIN	9.57	12.2	20.6	24.5	37.3	82.0	65.9	44.0	23.7	13.1	9.55	7.01
(WY)	1964	1965	1947	1981	1940	1985	1946	1941	1965	1966	1966	1964

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1924 - 1992	
ANNUAL TOTAL	32165.2		34248			
ANNUAL MEAN	88.1		93.6		110	
HIGHEST ANNUAL MEAN					210	1928
LOWEST ANNUAL MEAN					43.4	1965
HIGHEST DAILY MEAN	695	Apr 22	739	Jun 6	6310	Aug 19 1955
LOWEST DAILY MEAN	6.6	Sep 14	10	Oct 3	4.1	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	6.8	Sep 12	13	Oct 1	5.3	Sep 20 1964
INSTANTANEOUS PEAK FLOW			981	Jun 6	9560a	Aug 19 1955
INSTANTANEOUS PEAK STAGE			4.36	Jun 6	12.58b	Aug 19 1955
INSTANTANEOUS LOW FLOW			9.7	Oct 3	3.6	Sep 25 1964
ANNUAL RUNOFF (CFSM)	1.38		1.46		1.71	
ANNUAL RUNOFF (INCHES)	18.70		19.91		23.27	
10 PERCENT EXCEEDS	190		174		234	
50 PERCENT EXCEEDS	61		70		70	
90 PERCENT EXCEEDS	10		23		17	

a From rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow.
b From high-water mark in gage house.
e Estimated.

01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, NJ, Hydrologic Unit 02040105, on left bank 40 ft streamward from River Road, 1.0 mi downstream from Tocks Island, 3.7 mi northeast of Delaware Water Gap, PA, 4.0 mi upstream from bridge on Interstate Route 80, and at mile 216.1.

DRAINAGE AREA.--3,850 mi^2.

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 293.64 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). Several measurements of water temperature were made during the year. Gage height satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 37.4 ft, present datum (discharge about 260,000 cfs). Information on stage supplied by Harlan Fish, retired caretaker of Worthington State Forest.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	1190	3650	3480	4930	4560	8790	6870	17600	2990	4520	2190
2	1720	1220	3310	3030	3920	4530	8360	6580	23400	2940	5790	1660
3	1750	1100	4770	3320	3470	4740	7740	6360	14900	2490	4380	1630
4	1700	1180	10900	3490	4150	4620	6990	7070	11400	2130	4130	2280
5	1670	1200	10600	3710	3890	4240	6370	6970	9890	2370	3890	2320
6	1550	1210	8410	4050	3750	4580	5750	6140	15700	2500	3790	1960
7	1830	1290	6750	4750	3830	5030	5480	6080	19500	3140	3560	2200
8	2020	1620	5760	4330	3590	5460	5180	5750	15300	2850	3160	2090
9	1890	1590	5310	4020	2930	6620	4980	6440	12500	3100	2610	2270
10	1690	1560	5930	3570	2290	7260	4870	5600	10300	3130	2940	1990
11	1750	1470	5970	3650	3070	8420	5060	5290	8710	3240	4320	2620
12	1850	1590	5400	3000	3380	18400	5120	5230	7060	2760	3970	2900
13	1660	1690	5010	2680	2650	15000	7330	4610	5840	2160	3340	2810
14	1760	1860	5280	3300	2520	10800	7680	4180	4670	2520	3070	2100
15	1550	1630	6440	5200	3050	8390	6690	3600	4000	3070	2770	2040
16	1840	1440	6960	7240	2440	6980	6030	4050	4510	3540	2290	1850
17	2710	1420	6220	6060	2230	6270	6400	3840	4050	4000	2300	2010
18	3690	1370	5380	4750	3640	5840	10500	3860	3650	4030	2560	2240
19	4030	1320	4650	4070	4180	5640	16300	3860	3410	3080	2650	2100
20	3200	1190	4130	4960	4180	5570	17400	3430	3640	3180	2680	1810
21	2720	1220	3860	5750	4310	4890	13400	3150	2900	3610	2330	1850
22	2130	1840	4040	5700	4690	4220	11400	2630	2700	3270	2320	2100
23	1550	11100	3880	4840	3650	3710	11300	2890	3320	2780	1820	2710
24	1590	24100	3470	6280	3250	4110	11200	2330	3210	2860	1880	2450
25	1330	13400	3170	7560	4380	3850	10600	2660	3910	2930	2110	2590
26	1260	9480	2650	6730	4890	3830	12700	2950	3750	2350	2280	2440
27	1330	7220	3040	5450	5280	7530	11800	3810	3950	2620	2910	1910
28	1580	5900	2780	5450	5220	17700	10500	3760	3000	3970	2720	1920
29	1430	4650	2280	5950	5240	13300	8880	3580	2640	3740	2740	2490
30	1360	4320	2520	5600	---	10100	7780	3340	3130	3070	2090	2190
31	1210	---	3420	4960	---	9200	---	3690	---	3610	1960	---
TOTAL	58850	111370	155940	146930	109000	225390	262580	140600	232540	94030	93880	65720
MEAN	1898	3712	5030	4740	3759	7271	8753	4535	7751	3033	3028	2191
MAX	4030	24100	10900	7560	5280	18400	17400	7070	23400	4030	5790	2900
MIN	1210	1100	2280	2680	2230	3710	4870	2330	2640	2130	1820	1630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

MEAN	4028	5218	6670	5982	7300	10280	11690	8457	5441	3469	2797	3077
MAX	13030	12870	16730	17960	17320	21490	24100	17970	18150	9455	6242	10310
(WY)	1978	1973	1974	1979	1976	1977	1983	1989	1972	1973	1969	1987
MIN	1193	992	1914	1437	1936	3873	3796	2746	1397	950	1101	1283
(WY)	1965	1965	1965	1981	1980	1981	1985	1965	1965	1965	1965	1965

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	1720530		1696830			
ANNUAL MEAN	4714		4636		6214	
HIGHEST ANNUAL MEAN					9418	1973
LOWEST ANNUAL MEAN					2572	1965
HIGHEST DAILY MEAN	26300	Mar 5	24100	Nov 24	96000	Mar 16 1986
LOWEST DAILY MEAN	1100	Nov 3	1100	Nov 3	580	Jul 7 1965
ANNUAL SEVEN-DAY MINIMUM	1190	Oct 31	1190	Oct 31	620	Jul 2 1965
INSTANTANEOUS PEAK FLOW			30500	Nov 24	110000	Mar 16 1986
INSTANTANEOUS PEAK STAGE			11.58	Nov 24	24.00	Mar 16 1986
INSTANTANEOUS LOW FLOW			1060	Nov 3	---	
10 PERCENT EXCEEDS	9480		8730		13000	
50 PERCENT EXCEEDS	2780		3650		3770	
90 PERCENT EXCEEDS	1590		1690		1850	

01443000 DELAWARE RIVER AT PORTLAND, PA

LOCATION.--Lat 40°55'26", long 75°05'46", Northampton County, Hydrologic Unit 02040105, at walkbridge connecting Portland, PA and Columbia, NJ, and 0.5 mi upstream of Paulins Kill.

DRAINAGE AREA.--4,165 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
22...	1130	2100	98	7.6	10.5	10.5	94	E1.6	790	<2
JAN 1992										
21...	1200	4200	101	8.7	0.5	14.8	103	<1.1	210	40
APR										
07...	1130	6200	101	8.3	6.5	13.6	112	E1.5	40	<10
JUN										
23...	1100	3600	117	7.8	17.5	11.2	119	<1.0	<20	<10
AUG										
18...	1200	3000	111	8.6	19.0	9.1	100	<1.0	110	200

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
22...	31	9.4	1.8	7.0	0.80	19	13	10	<0.1
JAN 1992									
21...	34	11	1.6	5.4	0.80	16	16	11	0.2
APR									
07...	25	7.4	1.5	5.1	0.60	13	10	9.4	0.2
JUN									
23...	31	9.5	1.7	5.3	0.60	21	11	8.5	<0.1
AUG									
18...	33	10	1.9	5.5	0.80	23	10	8.5	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
22...	1.9	56	0.004	0.004	0.12	0.13	0.07	0.09	0.49
JAN 1992									
21...	3.4	61	0.008	0.003	0.37	0.38	0.04	0.07	0.24
APR									
07...	2.3	46	0.011	0.010	0.31	0.32	0.03	<0.03	0.19
JUN									
23...	1.9	52	0.005	0.004	0.19	0.20	<0.03	0.05	0.22
AUG									
18...	2.0	53	0.018	0.019	0.19	0.20	<0.03	<0.03	0.15

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
22...	0.37	0.61	0.50	0.41	0.03	3.0	0.3	1	5.7
JAN 1992									
21...	0.18	0.61	0.56	0.03	<0.02	2.9	0.3	2	23
APR									
07...	0.17	0.50	0.49	<0.02	<0.02	2.1	0.2	7	117
JUN									
23...	0.26	0.41	0.46	0.04	0.02	2.5	0.2	2	19
AUG									
18...	--	0.34	--	0.04	0.02	2.5	0.3	2	16

01443000 DELAWARE RIVER AT PORTLAND, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 23...	1100	<10	<1	<10	<10	<1	<1	<1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 23...	100	<1	30	<0.10	<1	<1	<10

01443280 EAST BRANCH PAULINS KILL NEAR LAFAYETTE, NJ

LOCATION.--Lat 41°04'34", long 74°41'45", Sussex County, Hydrologic Unit 02020007, on right downstream wingwall of bridge on Garrison Road, 1.6 mi south of Lafayette, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--13.0 mi^2.

PERIOD OF RECORD.--August to September 1992

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 555.40 ft above sea level (levels from American Geodetic Survey Co. benchmark).

REMARKS.--Records good. Possible regulation from ponds and golf courses upstream. A significant portion of the base flow is the result of pumpage from a limestone quarry into a tributary approximately 1.5 mi upstream of gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	7.8
2	---	---	---	---	---	---	---	---	---	---	---	7.1
3	---	---	---	---	---	---	---	---	---	---	---	7.7
4	---	---	---	---	---	---	---	---	---	---	---	10
5	---	---	---	---	---	---	---	---	---	---	---	7.6
6	---	---	---	---	---	---	---	---	---	---	†7.9	7.4
7	---	---	---	---	---	---	---	---	---	---	---	10
8	---	---	---	---	---	---	---	---	---	---	---	10
9	---	---	---	---	---	---	---	---	---	---	---	12
10	---	---	---	---	---	---	---	---	---	---	---	8.6
11	---	---	---	---	---	---	---	---	---	---	---	10
12	---	---	---	---	---	---	---	---	---	---	---	9.0
13	---	---	---	---	---	---	---	---	---	---	---	8.3
14	---	---	---	---	---	---	---	---	---	---	---	8.0
15	---	---	---	---	---	---	---	---	---	---	---	8.4
16	---	---	---	---	---	---	---	---	---	---	---	7.8
17	---	---	---	---	---	---	---	---	---	---	---	7.7
18	---	---	---	---	---	---	---	---	---	---	---	7.8
19	---	---	---	---	---	---	---	---	---	---	e18	8.5
20	---	---	---	---	---	---	---	---	---	---	12	8.0
21	---	---	---	---	---	---	---	---	---	---	9.9	7.9
22	---	---	---	---	---	---	---	---	---	---	8.8	8.0
23	---	---	---	---	---	---	---	---	---	---	8.6	10
24	---	---	---	---	---	---	---	---	---	---	8.2	8.8
25	---	---	---	---	---	---	---	---	---	---	8.0	8.1
26	---	---	---	---	---	---	---	---	---	---	7.4	9.1
27	---	---	---	---	---	---	---	---	---	---	8.5	8.4
28	---	---	---	---	---	---	---	---	---	---	8.1	8.2
29	---	---	---	---	---	---	---	---	---	---	8.6	9.4
30	---	---	---	---	---	---	---	---	---	---	8.1	7.9
31	---	---	---	---	---	---	---	---	---	---	8.0	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	257.5
MEAN	---	---	---	---	---	---	---	---	---	---	---	8.58
MAX	---	---	---	---	---	---	---	---	---	---	---	12
MIN	---	---	---	---	---	---	---	---	---	---	---	7.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1992, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	---	---	8.58
MAX	---	---	---	---	---	---	---	---	---	---	---	8.58
(WY)	---	---	---	---	---	---	---	---	---	---	---	1992
MIN	---	---	---	---	---	---	---	---	---	---	---	8.58
(WY)	---	---	---	---	---	---	---	---	---	---	---	1992

SUMMARY STATISTICS — AUGUST TO SEPTEMBER 1992

ANNUAL MEAN	---	
HIGHEST DAILY MEAN	18	Aug 19
LOWEST DAILY MEAN	7.1	Sep 2
INSTANTANEOUS PEAK FLOW	21e	Aug 19
INSTANTANEOUS PEAK STAGE	2.34	Aug 19
INSTANTANEOUS LOW FLOW	6.8	Sep 2

e Estimated.
† Result of discharge measurement.

01443440 PAULINS KILL AT BALESVILLE, NJ

LOCATION.--Lat 41°06'20", long 74°45'19", Sussex County, Hydrologic Unit 02040105, at bridge on unnamed road at Balesville, 2.2 mi downstream from Dry Brook, and 3.4 mi north of Newton.

DRAINAGE AREA.--67.1 mi^2.

PERIOD OF RECORD.--January 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
17...	1100	48	579	8.0	10.0	10.7	96	E1.1	230	110
JAN 1992										
28...	1115	90	436	8.2	0.5	14.5	102	E1.7	790	80
APR										
01...	1115	180	352	8.0	7.0	13.2	112	E1.8	330	60
JUN										
16...	1100	60	436	8.2	18.5	9.1	98	<1.0	2400	140
AUG										
11...	0930	78	381	8.4	19.5	8.6	97	E1.3	3500	580

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
17...	200	54	17	30	3.5	145	65	53	0.2
JAN 1992									
28...	170	43	14	23	1.8	118	34	43	0.1
APR									
01...	110	28	10	19	1.3	86	25	37	0.2
JUN									
16...	170	44	15	23	1.3	137	26	44	<0.1
AUG									
11...	130	35	11	22	1.9	122	22	39	0.4

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
17...	7.9	323	0.018	0.018	1.30	1.26	0.05	0.06	0.72
JAN 1992									
28...	6.2	241	0.013	0.009	1.18	1.21	0.05	0.03	0.51
APR									
01...	3.7	180	0.010	0.009	0.96	0.96	<0.03	0.08	0.52
JUN									
16...	5.5	246	0.021	0.020	1.02	1.03	<0.03	<0.03	0.47
AUG									
11...	5.6	212	0.013	0.014	0.54	0.54	<0.03	<0.03	0.47

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
17...	0.79	2.0	2.1	<0.02	<0.02	5.8	0.5	9	1.2
JAN 1992									
28...	0.44	1.7	1.7	0.03	<0.02	3.9	0.4	5	1.2
APR									
01...	0.40	1.5	1.4	<0.02	0.03	4.5	0.5	4	1.9
JUN									
16...	0.44	1.5	1.5	0.06	0.03	3.4	0.3	4	0.65
AUG									
11...	0.44	1.0	0.98	0.07	0.04	7.2	0.6	4	0.84

01443440 PAULINS KILL AT BALESVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 16...	1100	12	<1	<10	20	<1	<1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 16...	260	<1	70	<0.10	<1	<1	<10

01443500 PAULINS KILL AT BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'44", long 74°57'15", Warren County, Hydrologic Unit 02040105, on right bank 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1976, October 1977 to current year.

REVISED RECORDS.--WSP 971: 1942. WSP 1382: 1952-53(M).

GAGE.--Water-stage recorder and concrete control (Aug. 1, 1931, to Aug. 3, 1941, concrete control at site 280 ft, downstream). Datum of gage is 335.86 ft above sea level. Prior to May 24, 1922, nonrecording gage and May 24, 1922 to July 31, 1931, water-stage recorder, at site of former highway bridge 1,300 ft downstream at different datum. Aug. 1, 1931 to July 28, 1939, water-stage recorder at site 100 ft downstream at present datum.

REMARKS.--No estimated daily discharges. Records good except those above 200 ft^3/s, which are fair. Diurnal fluctuations caused by unknown source and flow regulated slightly by Swartswood Lake. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	1415	*924	*3.18	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	28	99	92	120	223	426	219	435	94	230	53
2	28	62	119	93	102	204	376	202	334	85	137	50
3	26	167	230	93	103	182	334	225	251	80	101	72
4	25	151	343	97	98	172	303	206	192	93	120	75
5	24	130	328	102	94	167	272	187	199	84	100	58
6	31	62	313	100	86	157	236	183	745	87	82	51
7	34	42	298	98	85	166	213	166	620	83	75	94
8	31	23	280	96	84	238	209	158	489	72	66	102
9	29	18	264	99	82	216	186	207	478	125	107	87
10	33	18	274	120	70	191	180	205	374	115	175	78
11	32	22	247	115	78	540	207	175	291	93	134	93
12	38	24	231	109	71	595	214	154	223	79	136	86
13	43	31	220	83	66	464	186	146	195	84	108	71
14	36	31	209	93	75	371	161	132	172	83	92	60
15	37	46	217	97	76	321	152	118	147	82	86	54
16	68	50	207	94	143	274	155	153	124	135	80	52
17	78	49	133	93	154	238	193	170	109	120	96	49
18	104	59	126	100	131	225	303	145	101	99	294	48
19	86	42	109	117	131	242	327	126	112	90	269	67
20	66	36	109	127	137	232	309	109	125	79	188	67
21	52	35	103	116	139	216	278	99	111	71	141	59
22	46	73	101	98	142	198	284	92	94	65	115	55
23	42	299	100	108	127	193	381	84	86	76	100	72
24	39	315	99	172	126	176	370	83	103	101	89	73
25	37	280	96	106	134	170	392	101	120	91	89	61
26	34	241	91	86	290	248	372	91	105	76	81	70
27	35	213	89	122	389	730	331	91	183	117	77	78
28	34	188	86	145	314	703	294	84	181	117	72	73
29	30	150	91	133	284	568	256	76	133	94	70	64
30	30	123	98	127	---	476	230	70	105	86	65	59
31	31	---	96	123	---	469	---	188	---	95	58	---
TOTAL	1288	3008	5406	3354	3931	9565	8130	4445	6937	2851	3633	2031
MEAN	41.5	100	174	108	136	309	271	143	231	92.0	117	67.7
MAX	104	315	343	172	389	730	426	225	745	135	294	102
MIN	24	18	86	83	66	157	152	70	86	65	58	48
CFSM	.33	.80	1.38	.86	1.08	2.45	2.15	1.14	1.84	.73	.93	.54
IN.	.38	.89	1.60	.99	1.16	2.82	2.40	1.31	2.05	.84	1.07	.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	105	163	205	215	249	365	331	224	155	118	107	107
MAX	634	479	588	712	516	963	930	650	690	527	663	626
(WY)	1956	1933	1974	1979	1951	1936	1983	1989	1972	1945	1955	1933
MIN	20.5	22.1	39.5	50.5	67.4	139	106	54.6	41.0	19.4	19.6	18.2
(WY)	1964	1965	1947	1981	1940	1965	1985	1941	1965	1955	1932	1964

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	53211		54579			
ANNUAL MEAN	146		149		195	
HIGHEST ANNUAL MEAN					362	1952
LOWEST ANNUAL MEAN					67.4	1965
HIGHEST DAILY MEAN	769	Apr 22	745	Jun 6	5950	Aug 19 1955
LOWEST DAILY MEAN	15	Sep 3	18	Nov 9	5.0	Aug 13 1930
ANNUAL SEVEN-DAY MINIMUM	16	Sep 12	24	Nov 8	12	Jul 31 1955
INSTANTANEOUS PEAK FLOW			924	Jun 6	8750	Aug 19 1955
INSTANTANEOUS PEAK STAGE			3.18	Jun 6	11.12a	Aug 19 1955
INSTANTANEOUS LOW FLOW			18	Nov 9	2.8	Nov 1 1922
ANNUAL RUNOFF (CFSM)	1.16		1.18		1.55	
ANNUAL RUNOFF (INCHES)	15.71		16.11		21.00	
10 PERCENT EXCEEDS	313		298		408	
50 PERCENT EXCEEDS	98		106		131	
90 PERCENT EXCEEDS	23		45		35	

a From high-water mark in gage house.

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1921, 1925, 1957-60, 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991 07...	1245	34	484	7.2	13.5	9.4	91	4.5	230	9
JAN 1992 28...	1330	147	325	8.1	0.5	14.0	97	<1.1	170	90
APR 01...	1315	413	321	8.1	6.5	12.2	102	E1.4	20	10
JUN 16...	1330	122	331	8.4	20.5	9.5	107	<1.0	110	30
AUG 11...	1200	130	348	8.1	22.0	8.0	93	E1.3	490	140

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991 07...	200	48	20	26	2.6	164	39	45	0.1
JAN 1992 28...	120	30	9.9	17	1.4	--	26	31	0.1
APR 01...	110	27	10	15	1.0	87	23	29	0.1
JUN 16...	140	35	13	14	1.0	119	23	26	0.1
AUG 11...	130	34	12	17	1.3	114	20	30	0.4

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991 07...	1.7	281	0.005	0.005	0.11	0.14	0.07	0.09	0.59
JAN 1992 28...	4.7	--	0.011	0.008	0.82	0.82	<0.03	<0.03	0.48
APR 01...	4.1	165	0.008	0.007	0.81	0.79	0.10	<0.03	0.41
JUN 16...	3.5	189	0.011	0.010	0.34	0.35	<0.03	<0.03	0.66
AUG 11...	3.2	187	0.010	0.010	0.24	0.22	<0.03	<0.03	0.56

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991 07...	0.80	0.70	0.94	<0.02	0.02	5.4	2.0	2	0.18
JAN 1992 28...	0.43	1.3	1.2	0.03	<0.02	3.6	0.5	7	2.8
APR 01...	0.30	1.2	1.1	<0.02	<0.02	3.6	0.5	5	5.6
JUN 16...	0.39	1.0	0.74	0.06	<0.02	4.5	0.5	7	2.3
AUG 11...	0.26	0.80	0.48	0.07	0.02	--	0.8	7	2.5

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 16...	1330	13	<1	<10	20	<1	1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 16...	210	<1	80	<0.10	<1	<1	<10

01443900 YARDS CREEK NEAR BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'51", long 75°02'25", Warren County, Hydrologic Unit 02040105, on left bank 100 ft upstream from bridge on Hainesburg-Mount Vernon Road, 1.4 mi downstream of Yards Creek Reservoir, 2.2 mi northeast of Hainesburg, 2.4 mi upstream from mouth, and 4.2 mi west of Blairstown.

DRAINAGE AREA.--5.34 mi^2.

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR NJ-77-2: 1976. WDR NJ-79-2: 1977(m). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.8 ft above sea level.

REMARKS.--Records good. Flow regulated by the Jersey Central Power and Light Co., at Yards Creek Reservoir 1.4 mi above station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.4	1.9	2.0	3.3	7.9	19	13	11	6.5	2.5	1.6
2	1.3	1.6	1.9	1.9	4.0	7.2	17	13	14	5.8	2.1	1.6
3	1.3	1.4	9.5	2.1	3.2	7.5	19	12	19	4.5	1.8	2.5
4	1.4	1.3	5.5	2.2	3.1	7.5	20	11	18	4.7	2.0	2.0
5	1.5	1.5	3.9	2.0	2.9	7.3	19	11	22	4.3	1.8	1.9
6	1.9	1.5	3.5	1.9	3.1	7.4	13	12	27	4.3	1.8	1.8
7	1.3	1.4	3.2	1.9	3.1	8.3	4.4	11	20	4.1	1.7	2.9
8	1.4	1.4	2.8	1.9	3.3	7.0	4.2	11	20	3.7	1.8	2.2
9	1.4	1.5	2.7	2.2	3.0	6.2	4.3	10	21	5.9	2.7	1.9
10	1.4	1.5	4.1	2.1	e2.9	7.1	4.1	8.9	20	3.0	1.8	3.3
11	1.8	1.6	2.9	2.0	2.9	17	4.6	7.8	20	3.0	1.8	2.3
12	1.8	1.6	2.8	1.9	3.1	20	4.1	8.0	20	2.9	1.7	1.7
13	1.5	1.5	3.0	1.7	3.6	17	3.8	8.4	21	2.8	1.8	1.7
14	1.4	1.5	3.0	3.0	3.3	17	3.9	8.8	19	3.1	1.8	1.6
15	2.9	1.3	2.5	2.2	3.9	15	3.8	8.8	17	2.8	1.9	1.8
16	3.0	1.3	2.3	2.0	4.6	16	4.3	11	17	2.8	1.8	1.7
17	4.0	1.2	2.3	e4.0	3.4	17	5.1	8.7	17	2.7	2.1	1.7
18	3.0	1.1	2.3	e1.9	4.8	16	5.1	8.2	17	2.2	2.4	1.8
19	2.3	1.1	2.2	e2.0	7.1	18	4.9	8.0	20	2.0	1.9	2.4
20	1.9	1.1	2.2	e1.5	7.0	17	4.4	7.9	20	1.8	1.8	1.7
21	1.7	1.4	2.2	e1.4	7.2	17	4.4	8.4	18	1.7	1.8	1.6
22	1.8	12	2.0	1.8	7.2	15	5.8	8.6	15	1.8	1.8	2.0
23	1.7	9.7	2.0	5.4	6.6	16	5.4	8.5	11	2.6	1.7	2.1
24	1.6	4.1	2.0	4.2	6.7	17	5.3	8.6	6.8	2.1	1.6	1.6
25	1.7	2.9	1.9	3.0	7.6	17	5.4	7.8	6.5	2.1	1.7	1.8
26	1.8	2.5	1.8	2.6	11	20	5.0	5.9	6.7	2.1	1.9	2.7
27	1.7	2.3	1.9	3.5	8.2	27	4.6	2.4	9.4	2.1	1.7	2.1
28	1.5	2.1	1.9	2.8	7.1	23	7.0	2.0	6.5	1.9	1.9	1.8
29	1.6	2.0	2.5	3.8	6.7	21	13	2.0	6.0	1.9	2.1	1.8
30	1.6	1.9	2.4	3.6	---	20	12	2.3	6.3	1.8	1.6	1.8
31	1.5	---	2.1	3.7	---	19	---	19	---	3.8	1.6	---
TOTAL	56.0	68.7	87.2	78.2	143.9	455.4	235.9	274.0	472.2	96.8	58.4	59.4
MEAN	1.81	2.29	2.81	2.52	4.96	14.7	7.86	8.84	15.7	3.12	1.88	1.98
MAX	4.0	12	9.5	5.4	11	27	20	19	27	6.5	2.7	3.3
MIN	1.3	1.1	1.8	1.4	2.9	6.2	3.8	2.0	6.0	1.7	1.6	1.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	5.34	7.87	13.7	14.4	14.9	16.5	17.6	14.8	9.38	4.81	4.32	4.70
MAX	33.6	22.4	37.7	51.0	36.4	50.1	55.3	33.7	35.2	19.9	21.6	27.0
(WY)	1990	1976	1974	1979	1979	1977	1983	1989	1972	1984	1969	1987
MIN	.97	1.20	.91	1.66	2.24	6.99	4.43	1.58	1.00	.89	.65	.58
(WY)	1981	1967	1981	1981	1985	1973	1981	1970	1980	1980	1980	1980

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	2250.97		2086.1			
ANNUAL MEAN	6.17		5.70		10.7	
HIGHEST ANNUAL MEAN					14.9	1984
LOWEST ANNUAL MEAN					3.17	1985
HIGHEST DAILY MEAN	29	Jan 4	27	Mar 27	225	Jan 18 1977
LOWEST DAILY MEAN	.97	Sep 7	1.1	Nov 18	.02	Jun 19 1970
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 6	1.2	Nov 15	.46	Oct 7 1980
INSTANTANEOUS PEAK FLOW			54	Nov 22	583	Feb 24 1977
INSTANTANEOUS PEAK STAGE			2.72	Nov 22	3.92	Feb 24 1977
INSTANTANEOUS LOW FLOW			.39	Jan 20	.00	Sep 12 1971
10 PERCENT EXCEEDS	20		17		24	
50 PERCENT EXCEEDS	2.1		2.9		4.6	
90 PERCENT EXCEEDS	1.3		1.6		1.1	

e Estimated.

01445500 PEQUEST RIVER AT PEQUEST, NJ

LOCATION.--Lat 40°49'50", long 74°58'43", Warren County, Hydrologic Unit 02040105, on right bank at Pequest, 100 ft upstream from abandoned Lehigh and Hudson River Railway bridge, and 300 ft downstream from Furnace Brook.

DRAINAGE AREA.--106 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October 1921, published in WSP 1302.

REVISED RECORDS.--WSP 1902: 1940(M), 1945, 1955(M), 1957, 1959(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 29, 1929. Datum of gage is 398.78 ft above sea level. Prior to June 22, 1926, nonrecording gage at site 10 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Some regulation from unknown sources upstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0615	*652	*3.13	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	34	58	69	92	119	232	162	168	78	133	47
2	37	36	61	76	81	113	217	154	144	70	94	45
3	35	34	232	70	86	108	199	152	112	67	74	59
4	35	33	287	77	84	103	186	151	94	74	65	112
5	35	33	172	97	79	98	173	143	124	71	59	74
6	37	32	132	90	73	96	161	136	515	70	54	64
7	37	32	116	83	75	108	152	131	305	64	50	87
8	35	32	107	77	73	142	147	129	233	59	48	91
9	31	32	106	76	71	128	140	147	223	126	54	75
10	31	34	137	83	53	123	142	142	165	100	65	66
11	32	37	121	78	74	382	151	135	137	82	72	76
12	36	43	106	74	56	281	158	127	120	71	65	79
13	37	40	102	72	52	217	143	117	108	70	55	65
14	34	36	106	94	72	186	132	110	98	84	54	58
15	40	35	97	116	67	167	123	103	93	84	53	53
16	77	34	89	90	117	151	119	125	86	120	55	51
17	78	34	84	55	104	143	137	130	81	97	68	50
18	104	34	82	85	95	141	167	117	78	87	132	47
19	69	33	59	62	98	147	175	108	130	77	127	50
20	56	33	80	66	100	157	166	95	144	70	100	60
21	46	35	77	65	93	148	154	88	118	65	85	53
22	49	96	76	65	89	140	159	84	97	59	75	52
23	46	268	75	84	88	138	242	80	87	62	69	71
24	40	150	76	260	90	133	240	76	92	77	65	62
25	38	106	73	154	99	129	254	79	99	74	61	56
26	37	86	68	128	186	202	241	80	86	68	58	60
27	37	76	67	103	173	545	217	85	118	72	56	69
28	39	71	63	105	145	378	200	80	128	68	53	71
29	35	64	74	99	133	299	183	71	105	62	57	62
30	34	60	93	94	---	253	171	64	88	56	52	54
31	34	---	87	94	---	246	---	120	---	69	50	---
TOTAL	1349	1703	3163	2841	2698	5721	5281	3521	4176	2353	2158	1919
MEAN	43.5	56.8	102	91.6	93.0	185	176	114	139	75.9	69.6	64.0
MAX	104	268	287	260	186	545	254	162	515	126	133	112
MIN	31	32	58	55	52	96	119	64	78	56	48	45
CFSM	.41	.54	.96	.86	.88	1.74	1.66	1.07	1.31	.72	.66	.60
IN.	.47	.60	1.11	1.00	.95	2.01	1.85	1.24	1.47	.83	.76	.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	86.5	127	157	166	198	273	257	185	131	107	93.2	90.7
MAX	391	409	426	627	371	750	720	430	556	487	409	354
(WY)	1990	1928	1974	1979	1939	1936	1983	1989	1972	1945	1928	1989
MIN	18.0	21.4	27.0	33.9	60.8	93.8	76.9	55.7	35.0	19.0	15.1	16.6
(WY)	1965	1966	1966	1966	1940	1965	1985	1965	1965	1965	1965	1964

01445500 PEQUEST RIVER AT PEQUEST, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	46000		36883			
ANNUAL MEAN	126		101		156	
HIGHEST ANNUAL MEAN					285	1952
LOWEST ANNUAL MEAN					45.8	1965
HIGHEST DAILY MEAN	559	Apr 22	545	Mar 27	2040	Jan 25 1979
LOWEST DAILY MEAN	26	Sep 13	31	Oct 9	12	Aug 18 1965
ANNUAL SEVEN-DAY MINIMUM	27	Sep 12	33	Nov 3	13	Aug 15 1965
INSTANTANEOUS PEAK FLOW			652	Jun 6	2130	Jan 25 1979
INSTANTANEOUS PEAK STAGE			3.13	Jun 6	5.97a	Jan 25 1979
INSTANTANEOUS LOW FLOW			26b	Feb 10	12	Aug 17 1965
ANNUAL RUNOFF (CFSM)	1.19		.95		1.47	
ANNUAL RUNOFF (INCHES)	16.14		12.94		19.94	
10 PERCENT EXCEEDS	261		167		326	
50 PERCENT EXCEEDS	89		84		111	
90 PERCENT EXCEEDS	33		37		36	

a From high-water mark.
b Possible regulation.

01445500 PEQUEST RIVER AT PEQUEST, NJ--Continued

PERIOD OF RECORD.--Water years 1958-80, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
16...	1100	79	542	8.3	12.0	10.2	96	E2.2	2400	920
JAN 1992										
29...	1045	98	520	8.4	2.0	14.5	106	E1.4	110	10
MAR										
31...	1045	250	444	8.5	7.5	13.4	114	E1.5	80	40
JUN										
17...	1045	82	501	8.4	18.5	9.3	100	<1.0	230	100
AUG										
12...	1100	64	488	8.7	18.0	9.8	105	E1.6	490	770

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
16...	220	52	22	21	3.6	160	60	38	0.2
JAN 1992									
29...	230	54	24	14	1.6	185	39	29	0.1
MAR									
31...	190	42	20	12	1.2	158	31	29	0.2
JUN									
17...	230	54	24	16	1.4	200	28	31	0.1
AUG									
12...	210	48	22	14	1.9	184	25	29	0.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
16...	7.4	305	0.039	0.036	0.90	1.01	0.17	0.20	0.97
JAN 1992									
29...	7.5	286	0.014	0.014	1.35	1.32	0.04	0.08	0.53
MAR									
31...	5.5	241	0.012	0.011	1.30	1.28	0.03	0.04	0.53
JUN									
17...	6.5	286	0.023	0.023	1.18	1.17	0.09	0.07	0.71
AUG									
12...	7.5	261	0.042	0.042	1.07	0.73	<0.03	0.04	0.53

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
16...	0.93	1.9	1.9	0.11	0.07	7.0	0.7	9	1.9
JAN 1992									
29...	0.41	1.9	1.7	0.05	<0.02	3.5	0.4	6	1.6
MAR									
31...	0.38	1.8	1.7	0.03	<0.02	4.3	0.7	21	14
JUN									
17...	0.63	1.9	1.8	0.06	<0.02	3.4	--	7	1.5
AUG									
12...	0.35	1.6	1.1	0.16	0.08	3.9	0.4	3	0.52

01445500 PEQUEST RIVER AT PEQUEST, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 17...	1045	12	<1	<10	20	<1	<1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 17...	230	<1	40	<0.10	<1	<1	<10

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft downstream from Pequest River, and at river mile 197.7.

DRAINAGE AREA.--4,535 mi^2.

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage 226.43 ft above sea level. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversions from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). Satellite telemeter and National Weather Service gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft, from floodmark, discharge, 220,000 ft^3/s, from rating curve extended above 170,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1720	1390	4630	4400	5540	e5720	11200	8720	18900	3560	5080	2350
2	2030	1390	4270	3760	4250	e5750	10600	8070	27000	3380	6250	2140
3	1970	1420	6560	3830	3680	e5870	9790	7790	18000	3010	5060	1730
4	1960	1440	12900	4420	4020	e5690	8870	8350	13700	2890	4700	2720
5	1970	1520	13500	4840	4580	e5290	8060	8400	12300	2770	4260	2620
6	2080	1480	10800	4750	e4360	e5610	7360	7500	19800	3060	4050	2440
7	2010	1460	8800	5630	e4510	e5970	6900	7200	23300	3400	4050	2580
8	2190	1790	7430	5300	e4120	e6400	6510	6940	19100	3330	3470	2620
9	2310	1940	6780	4900	e3480	e7840	6300	8480	15700	4200	3190	2590
10	2030	1870	7410	4540	e2880	e8390	6140	7340	13000	3860	3460	2480
11	2080	1840	7450	4550	e3630	e9530	6380	6850	11000	3810	4610	2880
12	2170	1910	6840	4080	e3720	e20100	6470	6630	9070	3300	4480	3360
13	2290	2060	6340	3500	e2990	e17500	8050	5950	7440	3030	3830	3310
14	1990	2130	6540	3950	e3000	e13400	9220	5410	6090	2640	3380	2610
15	1890	2140	7290	5960	e3380	e10700	7980	4680	5180	3550	3130	2230
16	2490	1790	8280	8220	e2820	e8940	7310	5330	5460	4240	2690	2220
17	3330	1760	7430	5940	e2800	e7970	7530	5180	4900	4670	2670	2150
18	4370	1670	6560	4520	e4500	7190	11200	5110	4460	4880	3190	2380
19	5040	1650	5450	3570	e4780	7020	17400	5050	4300	3930	3450	2460
20	4010	1410	4560	3680	e4850	6980	19600	4530	4510	3660	3290	2250
21	3370	1370	4830	3970	e5250	6220	15700	4140	3840	3880	2800	2090
22	2970	2520	4910	4720	e5500	5480	13700	3570	3410	3710	2800	2150
23	2150	11700	4880	5120	e4380	4910	13700	3630	3710	3260	2330	2980
24	1930	26200	4480	7720	e4020	5190	13700	3160	3860	3460	2200	2930
25	1790	16400	4120	7840	e5150	4910	12800	3410	4540	3420	2250	2840
26	1610	11800	3520	7310	e5520	5230	15000	3740	4430	3100	2530	2910
27	1550	8960	3570	5790	e6190	10300	14300	4340	5120	3020	3060	2760
28	1950	7340	3410	5530	e6500	20700	12800	4500	4310	4240	3060	2510
29	1810	5860	3180	6070	e6410	17200	11000	4260	3530	4330	3110	2630
30	1580	5380	3570	5940	---	13100	9720	3980	3550	3520	2590	2620
31	1480	---	4200	5940	---	11900	---	7190	---	3900	2150	---
TOTAL	72120	131590	194490	160290	126810	277000	315290	179430	283510	111010	107170	76540
MEAN	2326	4386	6274	5171	4373	8935	10510	5788	9450	3581	3457	2551
MAX	5040	26200	13500	8220	6500	20700	19600	8720	27000	4880	6250	3360
MIN	1480	1370	3180	3500	2800	4910	6140	3160	3410	2640	2150	1730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1992, BY WATER YEAR (WY)

MEAN	4645	7128	8295	7819	8399	13980	15610	9964	6016	4328	3667	3812
MAX	19570	21140	20590	20890	19930	42520	40720	21470	22280	16840	19260	13940
(WY)	1956	1928	1974	1949	1976	1936	1940	1989	1972	1928	1955	1938
MIN	1055	1226	1481	1683	2452	5243	4512	3261	1590	1017	881	1199
(WY)	1942	1965	1923	1981	1980	1981	1985	1965	1965	1965	1954	1941

01446500 DELAWARE RIVER AT BELVIDERE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1923 - 1992	
ANNUAL TOTAL	2093250		2035250			
ANNUAL MEAN	5735		5561		7797	
HIGHEST ANNUAL MEAN					14130	1928
LOWEST ANNUAL MEAN					2990	1965
HIGHEST DAILY MEAN	29500	Mar 5	27000	Jun 2	184000	Aug 19 1955
LOWEST DAILY MEAN	1370	Nov 21	1370	Nov 21	610	Aug 25 1954
ANNUAL SEVEN-DAY MINIMUM	1440	Nov 1	1440	Nov 1	782	Aug 14 1954
INSTANTANEOUS PEAK FLOW			31800	Jun 2	273000a	Aug 19 1955
INSTANTANEOUS PEAK STAGE			10.12	Jun 2	30.21b	Aug 19 1955
INSTANTANEOUS LOW FLOW			1270	Nov 2	609	Sep 28 1943
10 PERCENT EXCEEDS	11700		11000		16500	
50 PERCENT EXCEEDS	3410		4360		5000	
90 PERCENT EXCEEDS	1860		2050		1900	

a From rating curve extended above 170,000 ft^3/s on basis of flood-routing study.
b From high-water mark in gage house.
e Estimated.

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA

LOCATION.--Lat 40°41'30", long 75°12'15", Northampton County, Hydrologic Unit 02040105, at bridge on Northampton Street in Easton, 600 ft upstream from Lehigh River, and 0.2 mi downstream from U.S. Route 22 toll bridge in Easton.

DRAINAGE AREA.--4,717 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
23...	1345	3300	150	7.8	10.5	10.9	98	E1.5	20	<2
JAN 1992										
22...	1200	4600	140	8.7	1.0	13.5	95	<1.0	80	20
APR										
08...	1300	6400	134	7.7	8.5	11.7	101	E1.4	<20	10
JUN										
24...	1100	3900	144	7.7	19.0	11.0	121	<1.0	80	120
AUG										
19...	1200	3100	165	7.8	21.0	7.7	87	<1.0	90	90

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
23...	51	14	3.9	8.3	1.1	35	24	15	<0.1
JAN 1992									
22...	51	15	3.2	7.0	1.1	30	23	14	0.2
APR									
08...	43	12	3.2	6.5	0.20	26	15	13	<0.1
JUN									
24...	50	14	3.7	6.6	0.80	37	16	10	<0.1
AUG									
19...	69	20	4.6	8.1	1.0	47	16	12	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
23...	2.1	92	0.003	0.003	0.46	0.47	0.06	0.12	0.29
JAN 1992									
22...	3.5	88	0.004	0.004	0.64	0.63	0.05	<0.03	0.30
APR									
08...	2.1	70	0.012	0.012	0.56	0.59	<0.03	<0.03	0.22
JUN									
24...	1.9	77	0.007	0.006	0.49	0.48	<0.03	<0.03	0.26
AUG									
19...	2.8	95	0.018	0.018	0.51	0.51	<0.03	<0.03	0.23

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
23...	0.23	0.75	0.70	0.05	0.03	3.5	0.2	2	13
JAN 1992									
22...	0.25	0.94	0.88	0.17	0.02	2.9	0.3	2	25
APR									
08...	0.21	0.78	0.80	<0.02	<0.02	2.2	0.2	15	259
JUN									
24...	0.17	0.75	0.65	0.07	0.03	2.5	0.2	3	32
AUG									
19...	0.24	0.74	0.75	0.04	0.06	3.0	0.3	2	17

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 24...	1100	<10	<1	<10	<10	<1	<1	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 24...	90	1	20	<0.10	1	<1	<10

01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, PA, Hydrologic Unit 02040106, on left bank 110 ft upstream from New Street bridge at Bethlehem, and 1,800 ft upstream from Monocacy Creek. Records include flow of Monocacy Creek.

DRAINAGE AREA.--1,279 mi^2 includes that of Monocacy Creek. At site used prior to Oct. 1, 1928, 1,229 mi^2.

PERIOD OF RECORD.--September 1902 to February 1905, April 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to October 1913.

REVISED RECORDS.--WSP 261: 1903-5, WSP 321: 1910-11. WSO 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

GAGE.--Water-stage recorder. Datum of gage is 210.94 ft above sea level. Prior to October 1928, nonrecording gage at New Street Bridge 120 ft downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft downstream at datum 2.49 ft lower. Oct. 1, 1963, to Dec. 14, 1975, water-stage recorder at site 40 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Wild Creek Reservoir (station (01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1902, reached a stage of 24.9 ft, from floodmark, present site and datum, discharge, about 88,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	511	661	1790	1360	1650	2210	4320	2270	7620	1650	1320	691
2	507	573	1790	1420	1430	2300	3800	2170	8140	1420	1210	705
3	505	539	3350	1380	1460	2230	3480	2120	6630	1280	1140	740
4	495	528	4370	1400	1340	2100	3180	2020	4720	1160	1180	962
5	473	522	3600	1390	1300	1940	2930	2230	4840	1140	1150	829
6	685	509	3200	1350	1260	1750	2760	2040	7050	1510	1010	729
7	712	498	2800	1380	1200	2000	2430	1800	5740	1480	955	894
8	576	492	2510	1360	1170	2400	2300	2050	4920	1380	925	865
9	539	486	2410	1250	1090	2150	2280	5040	5290	2440	1340	789
10	534	479	2740	1270	884	2440	2230	5050	4820	2450	1220	790
11	615	592	2400	1200	1040	3480	2190	4480	4040	1700	1330	1430
12	853	557	2090	991	1000	5280	2180	3870	3430	1410	1350	1680
13	830	546	2070	967	891	4550	2030	3270	2970	1400	1270	1480
14	724	532	2300	1480	1030	3560	2200	2910	2780	1650	1040	1420
15	713	527	2280	2350	1160	3160	1910	2660	2400	1570	957	1280
16	766	525	2090	2480	1620	2950	1740	3280	2030	2030	963	951
17	1180	517	1990	2160	1560	2810	1730	3200	1820	2180	1070	745
18	1860	512	1910	1950	1370	2420	1910	2980	1730	2350	1150	743
19	1420	510	1600	1510	1410	2480	1970	3730	2040	1860	1310	885
20	1310	505	1350	1450	1540	2590	1910	3140	2060	1670	1250	1190
21	1200	531	1460	1430	1580	2130	2610	2740	1840	1570	1200	669
22	1090	1350	1380	1470	1470	1970	2800	2320	1740	1360	1100	724
23	898	5450	1360	1690	1290	1970	3560	2140	1430	1450	850	1020
24	761	3680	1540	2960	1290	1870	3470	2020	1480	1620	827	954
25	684	2870	1500	2450	1490	1810	3730	2030	1650	1630	814	746
26	670	2500	1360	2130	2150	2330	3380	1980	1590	1680	818	1640
27	607	2670	1190	1950	2620	7490	3200	2030	1900	1980	746	1850
28	589	2370	993	2170	2510	9200	3300	1920	2170	1930	771	1600
29	573	2220	1260	1800	2420	6650	2670	1710	1880	1860	851	1430
30	565	1910	1550	1630	---	5250	2330	1710	2190	1620	852	1320
31	562	---	1440	1640	---	4700	---	5390	---	1400	725	---
TOTAL	24007	36161	63673	51418	42225	100170	80530	86300	102940	51830	32694	31751
MEAN	774	1205	2054	1659	1456	3231	2684	2784	3431	1672	1055	1058
MAX	1860	5450	4370	2960	2620	9200	4320	5390	8140	2450	1350	1850
MIN	473	479	993	967	884	1750	1730	1710	1430	1140	725	669
CFSM	.61	.94	1.61	1.30	1.14	2.53	2.10	2.18	2.68	1.31	.82	.83
IN.	.70	1.05	1.85	1.50	1.23	2.91	2.34	2.51	2.99	1.51	.95	.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992, BY WATER YEAR (WY)

MEAN	1549	2300	2831	2572	2782	3779	3797	3140	2113	1649	1351	1387
MAX	5778	5294	6991	7898	5820	7708	9038	7041	7272	6362	6192	6907
(WY)	1956	1952	1984	1979	1951	1977	1983	1989	1972	1945	1955	1987
MIN	406	474	514	286	1132	1632	1428	1053	681	366	405	334
(WY)	1964	1965	1981	1981	1980	1981	1985	1941	1965	1965	1964	1964

01453000 LEHIGH RIVER AT BETHLEHEM, PA--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1941 - 1992	
ANNUAL TOTAL	656539		703699			
ANNUAL MEAN	1799		1923		2435	
HIGHEST ANNUAL MEAN					3973	1952
LOWEST ANNUAL MEAN					1165	1965
HIGHEST DAILY MEAN	7760	Mar 5	9200	Mar 28	70400	Aug 19 1955
LOWEST DAILY MEAN	361	Sep 17	473	Oct 5	210	Jan 31 1981
ANNUAL SEVEN-DAY MINIMUM	412	Sep 12	502	Nov 4	216	Jan 26 1981
INSTANTANEOUS PEAK FLOW			10400	Mar 27	92000a	May 23 1942
INSTANTANEOUS PEAK STAGE			5.83	Mar 27	25.90b	May 23 1942
INSTANTANEOUS LOW FLOW			466	Oct 5	125	Jun 28 1965
ANNUAL RUNOFF (CFSM)	1.41		1.50		1.90	
ANNUAL RUNOFF (INCHES)	19.10		20.47		25.87	
10 PERCENT EXCEEDS	3640		3440		4830	
50 PERCENT EXCEEDS	1380		1620		1760	
90 PERCENT EXCEEDS	515		670		677	

a From rating curve extended above 48,000 ft^3/s.
b From floodmark, present site, and datum.

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ

LOCATION.--Lat 40°42'57", long 75°04'20", Warren County, Hydrologic Unit 02040105, at bridge on Edison Road, 0.4 mi southeast of New Village, and 4.3 mi upstream from Merrill Creek.

DRAINAGE AREA.--33.3 mi^2.

PERIOD OF RECORD.--Water years 1959, 1962, 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
08...	1130	5.3	288	7.7	9.5	11.8	104	E2.1	1100	220
JAN 1992										
29...	1315	20	249	7.9	0.5	14.6	102	E1.3	20	20
MAR										
31...	1330	64	181	8.5	10.5	12.9	118	<1.1	<20	100
JUN										
17...	1330	15	188	8.4	22.5	10.0	116	<1.0	2400	--
AUG										
13...	1100	9.2	232	8.8	19.5	11.6	127	<1.0	1400	310

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
08...	86	20	8.7	9.9	2.2	--	22	19	0.1
JAN 1992									
29...	73	17	7.5	12	1.6	55	21	22	0.1
MAR									
31...	54	13	5.2	9.9	1.3	32	20	18	0.2
JUN									
17...	67	16	6.6	9.0	1.6	46	18	14	<0.1
AUG									
13...	86	20	8.8	11	1.9	64	19	19	0.4

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
08...	--	133	0.039	0.029	2.29	--	0.04	0.06	0.41
JAN 1992									
29...	14	137	0.023	0.025	1.86	1.79	0.78	0.81	1.0
MAR									
31...	12	105	0.020	0.019	1.41	1.42	0.08	0.09	0.37
JUN									
17...	13	113	0.065	0.065	1.72	1.69	0.04	<0.03	0.45
AUG									
13...	9.6	137	0.038	0.037	2.03	2.07	<0.03	<0.03	0.18

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
08...	0.33	2.7	--	0.29	0.22	5.1	0.7	1	0.01
JAN 1992									
29...	1.1	2.9	2.9	0.24	0.22	2.8	0.3	3	0.16
MAR									
31...	0.25	1.8	1.7	0.08	0.06	2.2	0.4	7	1.2
JUN									
17...	0.32	2.2	2.0	0.20	0.16	2.5	0.3	10	0.41
AUG									
13...	0.09	2.2	2.2	0.27	--	2.6	0.2	2	0.05

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 17...	1330	12	<1	<10	20	<1	<1	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 17...	330	<1	20	<0.10	<1	<1	<10

01455801 MUSCONETCONG RIVER AT LOCKWOOD, NJ

LOCATION.--Lat 40°55'10", long 74°44'07", Sussex County, Hydrologic Unit 02040105, at bridge in Lockwood, at boundary between Sussex County and Morris County, 0.2 mi southeast of Cage Hill, 0.4 mi south of Jefferson Lake, and 0.9 mi downstream from Lubbers Run.

DRAINAGE AREA.--60.1 mi^2.

PERIOD OF RECORD.--Water years 1976 to October 1991 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991 17...	1230	50	346	7.6	10.0	10.6	95	2.8	5400	>2400

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991 17...	110	28	10	24	2.4	78	21	52	0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991 17...	8.7	197	0.053	0.047	0.76	0.78	0.28	0.28	1.2

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991 17...	1.1	2.0	1.8	0.04	<0.02	7.1	1.1	3	0.41

01456200 MUSCONETCONG RIVER AT BEATTYSTOWN, NJ

LOCATION.--Lat 40°48'48", long 74°50'32", Warren County, Hydrologic Unit 02040105, at bridge at Beattystown, 1.6 mi upstream of Hanes Brook, 2.1 mi northeast of Stephensburg, and 3.5 mi northeast of Scrappy Corner.

DRAINAGE AREA.--90.3 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
JAN 1992										
29...	1100	120	336	8.6	2.0	13.7	99	6.1	<20	<10
APR										
01...	1300	180	267	8.7	8.0	13.1	114	E1.8	20	<10
JUN										
17...	1030	100	342	8.1	21.0	9.1	102	<1.0	3500	150
AUG										
12...	1100	53	392	8.4	21.5	9.4	108	E1.7	2400	770

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 1992									
29...	100	26	8.7	22	1.1	64	22	48	0.1
APR									
01...	85	21	8.0	18	1.0	58	18	37	0.2
JUN									
17...	100	25	10	24	1.4	75	20	49	0.1
AUG									
12...	140	31	14	25	1.9	107	18	50	0.4

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
JAN 1992									
29...	5.1	174	0.017	0.018	0.63	0.61	0.23	0.21	0.60
APR									
01...	5.6	147	0.019	0.019	0.72	0.75	0.18	0.11	0.47
JUN									
17...	5.4	184	0.044	0.042	0.85	0.88	0.18	0.11	0.64
AUG									
12...	6.1	215	0.087	0.081	0.92	0.87	0.21	0.16	0.85

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JAN 1992									
29...	0.75	1.2	1.4	0.07	0.04	3.3	0.5	4	1.3
APR									
01...	0.38	1.2	1.1	0.03	0.04	3.0	0.5	6	2.9
JUN									
17...	0.52	1.5	1.4	0.05	0.02	3.6	0.3	6	1.6
AUG									
12...	0.39	1.8	1.3	0.33	0.03	3.4	1.6	56	8.0

01456200 MUSCONETCONG RIVER AT BEATTYSTOWN, NJ--Continued

WATER QUALITY DATA, WATER OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 17...	1030	17	<1	<10	30	<1	<1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 17...	280	<1	60	<0.10	<1	<1	<10

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ

LOCATION.--Lat 40°40'20", long 75°03'40", Warren County, Hydrologic Unit 02040105, on right bank just downstream from bridge on Limekiln Road (Person Road), 1.5 mi upstream from Bloomsbury, and 9.5 mi upstream from mouth.

DRAINAGE AREA.--141 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to March 1907, July 1921 to current year.

REVISED RECORDS.--WSP 1051: 1944-45. WSP 1382: 1904-06, 1922, 1923-29(M), 1931(M), 1933-34(M), 1936(M), 1940, 1942(M), 1944-45(M), 1951-52(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Sept. 29, 1932. Datum of gage is 274.83 ft above sea level. July 1903 to Mar. 31, 1907, nonrecording gage at bridge 15 ft upstream at different datum. July 26 to Sept. 12, 1921, nonrecording gage at bridge at present datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Hopatcong (see Delaware River basin, reservoirs in). Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0345	*1,200	*3.93	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	68	119	127	184	138	284	169	278	151	259	78
2	76	69	126	111	173	130	258	166	244	139	161	76
3	75	68	344	106	169	128	239	162	200	132	135	84
4	74	65	473	109	165	123	221	162	177	137	122	188
5	73	65	371	130	163	120	208	158	297	128	114	140
6	74	65	340	130	158	116	194	156	845	140	106	108
7	76	66	320	119	153	132	185	151	598	122	98	112
8	76	67	301	125	129	178	177	153	515	115	93	105
9	72	75	297	136	119	163	170	180	523	227	111	100
10	71	78	330	146	107	147	171	183	418	174	104	105
11	72	87	321	141	108	399	182	176	353	142	106	238
12	78	95	318	135	103	347	175	164	304	123	110	244
13	77	97	316	134	99	269	164	155	266	121	106	235
14	73	89	325	171	105	233	154	147	237	153	103	232
15	82	84	308	190	109	207	148	138	214	130	98	203
16	156	81	297	159	163	187	147	153	196	147	98	150
17	176	78	272	129	155	174	165	181	182	157	106	139
18	186	76	207	126	130	169	182	168	166	154	125	140
19	140	81	159	115	128	183	181	156	216	133	112	141
20	106	76	164	146	132	190	176	142	254	124	108	137
21	92	77	130	118	126	176	170	130	214	118	96	132
22	85	158	116	113	116	165	181	121	184	108	90	135
23	81	325	111	133	112	164	201	115	167	135	83	167
24	79	233	110	341	112	158	209	110	178	144	85	146
25	77	159	108	297	117	154	237	112	192	133	85	137
26	76	132	113	241	172	208	235	115	169	117	84	186
27	75	133	114	233	192	608	212	118	161	121	84	197
28	73	129	106	203	165	507	195	114	193	120	85	189
29	72	125	113	196	151	380	183	106	177	115	96	190
30	72	121	138	192	---	323	174	102	161	102	82	247
31	70	---	145	189	---	307	---	203	---	104	80	---
TOTAL	2743	3122	7012	4941	4015	6883	5778	4566	8279	4166	3325	4681
MEAN	88.5	104	226	159	138	222	193	147	276	134	107	156
MAX	186	325	473	341	192	608	284	203	845	227	259	247
MIN	70	65	106	106	99	116	147	102	161	102	80	76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1992, BY WATER YEAR (WY)

MEAN	173	226	260	261	277	340	347	274	199	162	153	159
MAX	770	701	686	924	582	935	1027	680	843	659	583	454
(WY)	1904	1928	1974	1979	1973	1936	1983	1989	1972	1975	1928	1960
MIN	41.2	61.2	57.3	73.7	99.4	127	103	98.1	56.8	38.1	38.5	37.3
(WY)	1964	1966	1966	1977	1923	1965	1985	1965	1965	1965	1965	1965

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1904 - 1992	
ANNUAL TOTAL	71440		59511			
ANNUAL MEAN	196		163		236	
HIGHEST ANNUAL MEAN					425	1928
LOWEST ANNUAL MEAN					82.6	1965
HIGHEST DAILY MEAN	641	Apr 25	845	Jun 6	5850	Oct 10 1903
LOWEST DAILY MEAN	65	Nov 4	65	Nov 4	27	Sep 8 1966
ANNUAL SEVEN-DAY MINIMUM	66	Nov 2	66	Nov 2	32	Aug 28 1966
INSTANTANEOUS PEAK FLOW			1200	Jun 6	7200a	Jan 25 1979
INSTANTANEOUS PEAK STAGE			3.93	Jun 6	8.50b	Jan 25 1979
INSTANTANEOUS LOW FLOW			64	Nov 4	8.1	Aug 2 1955
10 PERCENT EXCEEDS	370		267		454	
50 PERCENT EXCEEDS	145		140		180	
90 PERCENT EXCEEDS	75		78		77	

a From rating curve extended above 1,800 ft^3/s on basis of slope-area measurement at gage height 6.95 ft.
b From floodmark.

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ--Continued

PERIOD OF RECORD.--Water years 1963-80, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
23...	1100	80	368	8.1	9.0	11.4	98	E2.0	790	49
JAN 1992										
29...	1330	194	340	8.5	2.5	14.9	110	E1.8	490	60
APR										
02...	1300	253	285	9.0	7.5	13.8	117	E2.0	50	20
JUN										
17...	1330	179	329	8.5	20.0	10.4	115	<1.0	940	130
AUG										
13...	1045	106	359	8.3	18.0	9.4	100	<1.0	270	180

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
23...	150	35	16	15	1.9	124	24	30	<0.1
JAN 1992									
29...	110	28	10	19	1.4	79	22	40	0.1
APR									
02...	99	23	10	14	1.1	73	19	32	0.2
JUN									
17...	120	28	12	18	1.3	90	18	37	0.1
AUG									
13...	140	31	15	16	1.5	117	18	33	0.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
23...	8.6	214	0.011	0.016	1.92	1.94	0.06	0.19	0.40
JAN 1992									
29...	6.4	180	0.015	0.016	1.23	1.24	0.05	0.09	0.47
APR									
02...	6.2	156	0.014	0.013	1.46	1.51	0.03	0.07	0.31
JUN									
17...	6.7	182	0.014	0.014	1.53	1.51	<0.00	<0.03	0.54
AUG									
13...	6.5	199	0.018	0.018	1.76	1.71	<0.03	<0.03	0.26

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
23...	0.24	2.3	2.2	0.02	<0.02	2.6	0.3	2	0.43
JAN 1992									
29...	0.42	1.7	1.7	0.04	0.04	3.0	0.6	8	4.2
APR									
02...	0.17	1.8	1.7	<0.02	<0.02	2.2	0.3	3	2.0
JUN									
17...	0.35	2.1	1.9	<0.02	<0.02	2.7	0.3	14	6.8
AUG									
13...	0.16	2.0	1.9	0.04	0.03	2.1	0.3	2	0.57

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 17...	1330	13	<1	<10	20	<1	<1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 17...	260	<1	30	<0.10	<1	<1	<10

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'32", long 75°11'20", Warren County, Hydrologic Unit 02040105, at bridge on State Highway 13 in Riegelsville, 0.2 mi north of Mount Joy, and 0.2 mi upstream from mouth.

DRAINAGE AREA.--156 mi^2.

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

REMARKS.--Water-quality samples do not include Riegelsville Paper Company bypass.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991 16...	1200	170	357	7.5	9.5	11.6	103	E2.3	>2400	>2400
FEB 1992 05...	1030	180	344	7.7	1.5	13.9	101	E1.9	50	10
APR 02...	1030	300	290	8.5	7.0	12.4	104	E2.1	20	10
JUN 18...	1100	190	329	8.5	19.0	8.8	95	E1.6	1700	280
AUG 13...	1315	120	369	8.3	19.5	8.7	96	<1.0	270	100

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991 16...	150	33	16	14	2.8	121	23	29	0.1
FEB 1992 05...	120	29	12	20	1.5	89	24	40	0.1
APR 02...	99	23	10	14	1.1	75	20	31	0.2
JUN 18...	130	29	13	17	1.4	94	19	34	0.1
AUG 13...	150	33	16	17	1.8	119	21	32	0.4

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991 16...	7.6	206	0.033	0.029	1.91	1.88	0.10	0.09	0.90
FEB 1992 05...	6.6	194	0.017	0.017	1.77	1.77	0.07	0.07	1.0
APR 02...	6.4	157	0.012	0.012	1.49	1.49	0.03	0.03	0.70
JUN 18...	7.0	185	0.020	0.022	1.76	1.78	0.08	0.06	0.96
AUG 13...	6.2	207	0.052	0.049	1.86	1.86	<0.03	<0.03	0.94

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991 16...	0.64	2.8	2.5	<0.02	<0.02	6.0	0.8	17	7.8
FEB 1992 05...	0.78	2.8	2.6	0.03	<0.02	2.5	0.4	5	2.4
APR 02...	0.64	2.2	2.1	<0.02	<0.02	2.4	0.3	8	6.5
JUN 18...	0.52	2.7	2.3	0.04	0.03	3.0	0.5	12	6.2
AUG 13...	0.74	2.8	2.6	0.03	0.05	2.7	0.4	5	1.6

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 18...	1100	12	<1	<10	20	<1	<1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 18...	310	<1	40	<0.10	<1	<1	<10

01457500 DELAWARE RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'36", long 75°11'17", Warren County, Hydrologic Unit 02040105, just upstream of suspension bridge at Riegelsville, 600 ft upstream from Musconetcong River (flow of which is included in the records for this station since Oct. 1, 1931). Datum of gage is 125.12 ft. National Geodetic Vertical Datum of 1929. Water-quality samples are collected from the bridge and do not include flow of the Museconetcong River.

DRAINAGE AREA.--6,328 mi^2.

PERIOD OF RECORD.--Water years 1934, 1943, 1950, 1960-79, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991 24...	1100	3400	205	7.8	13.0	9.3	87	<1.0	40	13
JAN 1992 23...	1045	7100	--	7.8	2.5	13.8	--	E1.6	50	10
APR 08...	1100	9200	161	7.7	9.0	11.5	100	E1.4	50	10
JUN 25...	1100	6600	176	8.4	20.0	8.6	96	<1.0	50	130
AUG 19...	1100	5400	203	8.0	20.5	8.2	92	<1.0	130	80

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991 24...	73	19	6.3	12	1.5	49	32	21	<0.1
JAN 1992 23...	52	14	4.2	8.4	1.1	33	22	14	0.1
APR 08...	52	14	4.2	7.9	1.0	30	19	15	<0.1
JUN 25...	61	16	5.2	8.7	1.1	42	20	14	<0.1
AUG 19...	73	19	6.1	10	1.5	53	23	16	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991 24...	3.1	129	0.019	0.016	1.03	1.01	0.11	0.13	0.52
JAN 1992 23...	4.2	93	0.010	0.012	1.04	1.09	0.06	0.06	0.31
APR 08...	2.8	86	0.016	0.016	0.98	0.99	<0.03	0.04	0.26
JUN 25...	2.9	97	0.010	0.011	0.94	0.94	<0.03	<0.03	0.28
AUG 19...	3.5	115	0.022	0.023	0.94	0.94	<0.03	<0.03	0.26

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991 24...	0.26	1.5	1.3	0.12	0.08	3.0	0.3	1	9.2
JAN 1992 23...	0.22	1.3	1.3	0.08	0.04	2.5	0.4	1	19
APR 08...	0.23	1.2	1.2	0.05	0.03	2.1	0.3	7	174
JUN 25...	0.17	1.2	1.1	0.07	0.06	2.4	0.3	1	18
AUG 19...	0.17	1.2	1.1	0.11	0.09	2.6	0.4	4	58

01457500 DELAWARE RIVER AT RIEGELSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 25...	1100	11	<1	<10	30	<1	<1	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 25...	90	<1	20	<0.10	2	<1	20

01460440 DELAWARE AND RARITAN CANAL AT PORT MERCER, NJ

LOCATION.--Lat 40°18'16", long 74°41'08", Mercer County, Hydrologic Unit 02040105, on right bank 300 ft upstream from bridge on Province Line (Quaker Bridge) Road at Port Mercer.

PERIOD OF RECORD.--August 1990 to current year. Miscellaneous measurements made 1923, 1937-38, 1942-43, 1945, 1981, 1987-90.

GAGE.--Water-stage recorder and ultrasonic velocity meter. Datum of gage is sea level.

REMARKS.--Records excellent except for estimated daily discharges, which are good. The canal diverts water from the Delaware River at Raven Rock and discharges into Raritan River at New Brunswick. Reverse flow can occur during periods of heavy precipitation due to waste gate operation upstream of gage. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	109	128	101	96	89	94	104	155	152	152	156
2	128	105	121	104	97	98	94	102	155	154	155	155
3	130	104	90	108	98	106	94	108	153	153	159	155
4	129	105	72	109	99	101	94	110	147	156	157	156
5	127	104	84	104	98	99	94	111	111	153	159	161
6	123	99	99	98	103	100	92	117	43	154	157	164
7	130	97	104	93	103	103	92	116	127	156	157	159
8	140	100	104	98	100	99	92	115	119	153	153	158
9	142	105	108	105	99	96	91	103	120	157	156	158
10	134	108	105	105	104	88	91	111	123	154	155	158
11	128	107	97	104	104	78	93	115	133	152	148	160
12	114	111	101	102	110	81	91	114	138	150	139	158
13	114	115	106	99	111	87	95	114	131	154	146	156
14	113	112	101	100	109	88	96	110	131	153	151	158
15	113	113	101	98	106	95	104	120	139	152	146	156
16	98	113	104	98	94	98	103	139	149	150	143	157
17	110	111	107	96	95	97	e104	127	148	147	146	155
18	102	110	106	100	94	100	e95	126	147	156	149	153
19	100	109	108	107	95	94	e93	142	126	154	150	152
20	102	108	109	123	106	84	e91	144	117	155	154	e151
21	104	106	104	116	100	84	e90	148	140	155	154	e152
22	107	106	102	106	96	86	84	154	144	156	152	162
23	106	91	103	108	97	87	98	160	149	155	153	156
24	105	99	103	102	98	90	95	169	140	153	152	154
25	105	97	102	102	98	89	100	164	142	156	154	157
26	105	99	103	103	98	91	104	159	142	153	156	140
27	98	115	102	104	94	69	103	155	143	159	151	156
28	107	121	102	103	93	76	101	172	144	157	151	156
29	109	123	103	100	90	85	105	172	151	157	152	148
30	109	123	102	96	---	96	102	170	149	158	153	139
31	110	---	102	94	---	98	---	157	---	153	155	---
TOTAL	3569	3225	3183	3186	2885	2832	2875	4128	4056	4777	4715	4656
MEAN	115	107	103	103	99.5	91.4	95.8	133	135	154	152	155
MAX	142	123	128	123	111	106	105	172	155	159	159	164
MIN	98	91	72	93	90	69	84	102	43	147	139	139

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	135	129	118	116	118	114	119	140	140	151	149	149
MAX	155	151	133	128	137	136	143	148	145	154	152	155
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1992	1992	1992
MIN	115	107	103	103	99.5	91.4	95.8	133	135	148	147	137
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1991	1990	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1992	
ANNUAL TOTAL	48585		44087			
ANNUAL MEAN	133		120		132	
HIGHEST ANNUAL MEAN					143	1991
LOWEST ANNUAL MEAN					120	1992
HIGHEST DAILY MEAN	162	Jul 29	172	May 28	222	Aug 22 1990
LOWEST DAILY MEAN	33	Mar 4	43	Jun 6	33	Mar 4 1991
ANNUAL SEVEN-DAY MINIMUM	94	Dec 3	84	Mar 23	84	Mar 23 1992
10 PERCENT EXCEEDS	152		156		156	
50 PERCENT EXCEEDS	140		109		141	
90 PERCENT EXCEEDS	104		94		98	

e Estimated.

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 of Lockatong Creek.

DRAINAGE AREA.--6,598 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
24...	1330	3200	197	8.1	13.5	10.1	96	<1.0	<20	<2
JAN 1992										
23...	1330	7600	--	7.7	2.5	14.5	--	E2.0	70	30
APR										
09...	1100	8800	165	8.0	10.5	12.2	110	E1.2	<20	<10
JUN										
24...	1100	5400	184	8.3	19.0	8.8	96	<1.0	<20	50
AUG										
19...	1200	5400	212	8.4	20.5	8.7	97	<1.0	490	30

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
24...	70	18	6.1	11	1.5	47	31	20	<0.1
JAN 1992									
23...	56	15	4.6	9.3	1.2	35	23	15	0.1
APR									
09...	53	14	4.3	8.1	0.90	32	20	15	<0.1
JUN									
24...	66	17	5.8	9.0	1.2	45	21	14	<0.1
AUG									
19...	73	19	6.3	10	1.7	54	23	16	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
24...	2.7	124	0.015	0.015	1.09	1.10	0.15	0.13	0.45
JAN 1992									
23...	4.0	98	0.014	0.014	1.15	1.14	0.06	0.05	0.36
APR									
09...	2.5	88	0.018	0.019	0.86	0.85	<0.03	<0.03	0.23
JUN									
24...	3.3	103	0.010	0.011	0.91	1.01	<0.03	<0.03	0.30
AUG									
19...	3.6	117	0.021	0.021	1.06	1.04	<0.03	<0.03	0.36

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
24...	0.37	1.5	1.5	0.07	0.06	3.2	0.2	1	8.6
JAN 1992									
23...	0.32	1.5	1.5	0.59	0.57	2.6	0.1	1	21
APR									
09...	0.24	1.1	1.1	0.04	0.03	1.8	0.4	7	166
JUN									
24...	0.31	1.2	1.3	0.06	0.09	2.6	0.3	3	44
AUG									
19...	0.28	1.4	1.3	0.10	0.08	2.8	0.5	5	73

01461000 DELAWARE RIVER AT LUMBERVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 24...	1100	<10	<1	<10	20	<1	<1	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 24...	100	<1	20	<0.10	2	<1	20

01463500 DELAWARE RIVER AT TRENTON, NJ
(National stream quality accounting network and Radiochemical program station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, 0.5 mi upstream from Assunpink Creek, and at mile 134.5.

DRAINAGE AREA.--6,780 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Sept. 30, 1965, at datum 7.77 ft higher. Feb. 24, 1913 to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 450 ft downstream.

REMARKS.--No estimated daily discharges. Records excellent except from June 6 to Sept. 30, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, Wild Creek, and Merrill Creek Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs. Diversion to Bradshaw and Merrill Creek Reservoirs and to Delaware and Raritan Canal (see Delaware River basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River basin, diversions). Satellite gage height and water-quality parameter telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft above National Geodetic Vertical Datum of 1929, discharge estimated, 295,000 ft^3/s. Maximum elevation since 1957, 30.6 ft above National Geodetic Vertical Datum of 1929, Mar. 8, 1904, from floodmark, due to ice jam.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0245	*46,800	*13.98	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2610	2670	7710	6380	8040	9580	17200	12000	21700	5940	6500	3230
2	2760	2670	6990	6260	7260	8660	15900	11000	35300	5320	7640	3230
3	3020	2790	10600	5760	5840	8510	14700	10500	30200	4930	8650	3300
4	3030	2730	19400	6150	5450	8570	13600	10300	21900	4680	7120	3010
5	2990	2390	20700	6690	5830	8220	12400	10800	21000	4230	6660	4000
6	2940	2450	16900	6820	6130	7640	11400	10700	35600	4290	6030	4140
7	3240	2410	14200	6850	5420	7950	10400	9530	33600	4850	5660	3960
8	3140	2390	11900	7540	5540	9640	9850	9370	29600	5100	5490	4070
9	3200	2540	10600	7070	5630	10000	9370	13400	24700	5790	4910	4200
10	3350	2810	11200	6870	4560	11000	9150	15300	21200	7960	5300	3930
11	3070	2840	11800	6420	3370	15000	9110	13600	17900	6710	5250	4040
12	3170	2900	10800	6270	3960	20000	9380	11900	15000	5760	6770	4720
13	3460	2960	9820	5560	4520	27300	9320	10900	12500	5010	6720	6020
14	3590	3010	9950	5390	3930	20500	11500	9730	10900	4720	6000	5730
15	3230	3010	10300	7710	4320	16000	11300	8740	9470	4880	5090	4910
16	3480	3140	11000	9730	5710	13400	10100	8160	8090	6340	4700	4140
17	4240	2800	10900	10700	6320	11800	9520	10000	8040	7320	4320	3850
18	6840	2710	9890	8350	5410	10800	10600	9020	7070	8390	4610	3300
19	7510	2640	8750	7230	6260	10500	16400	8990	7250	8060	5060	3510
20	7060	2580	7230	5860	7230	10400	21700	9220	7750	6270	5550	3790
21	5880	2460	6540	5960	7190	10100	20200	7880	7160	5780	5270	4060
22	5160	2710	6800	6060	7160	9000	17700	7160	5910	5940	4630	3310
23	4590	10300	6840	6760	7280	8310	17200	6180	5370	5580	4390	3340
24	3680	26800	6750	9910	6280	7710	17800	6100	5560	5790	3740	4370
25	3230	25000	6480	12100	5860	7880	17300	5580	5990	5710	3350	4710
26	3130	17100	6000	10900	8010	8350	17500	5890	6650	5610	3300	4670
27	2860	13500	5320	9610	10600	16400	18600	6230	6320	5640	3610	5500
28	2700	11400	5190	8270	10400	29200	17100	6850	7990	5870	4040	5990
29	2910	9740	5120	8420	9960	29300	15400	6620	6560	6900	4490	5190
30	2970	8370	5710	8380	---	22200	13300	6240	5720	6980	4520	4750
31	2800	---	5970	8130	---	18400	---	6950	---	5910	4090	---
TOTAL	115840	181820	297360	234110	183470	412320	415000	284840	442000	182260	163460	126970
MEAN	3737	6061	9592	7552	6327	13300	13830	9188	14730	5879	5273	4232
MAX	7510	26800	20700	12100	10600	29300	21700	15300	35600	8390	8650	6020
MIN	2610	2390	5120	5390	3370	7640	9110	5580	5370	4230	3300	3010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1992, BY WATER YEAR (WY)

MEAN	6809	10390	12370	12160	12850	20590	22060	14220	9170	7090	5959	5801
MAX	28710	27340	31070	34950	27550	60840	52680	31690	33460	25720	30290	22490
(WY)	1956	1928	1974	1979	1951	1936	1940	1989	1972	1928	1955	1933
MIN	1632	1868	2037	2539	3500	7715	6828	5209	2572	1548	1808	1762
(WY)	1942	1915	1923	1981	1920	1981	1985	1965	1965	1965	1965	1932

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1913 - 1992	
ANNUAL TOTAL	3129580		3039450			
ANNUAL MEAN	8574		8305		11610	
HIGHEST ANNUAL MEAN					19810	1928
LOWEST ANNUAL MEAN					4708	1965
HIGHEST DAILY MEAN	36400	Mar 5	35600	Jun 6	279000	Aug 20 1955
LOWEST DAILY MEAN	2390	Nov 5	2390	Nov 5	1240	Oct 31 1914
ANNUAL SEVEN-DAY MINIMUM	2530	Nov 3	2530	Nov 3	1310	Oct 31 1914
INSTANTANEOUS PEAK FLOW			46800	Jun 6	329000a	Aug 20 1955
INSTANTANEOUS PEAK STAGE			13.98	Jun 6	28.60b	Aug 20 1955
INSTANTANEOUS LOW FLOW			2320	Nov 5	1180	Oct 31 1963
10 PERCENT EXCEEDS	17100		16100		24400	
50 PERCENT EXCEEDS	5720		6670		7850	
90 PERCENT EXCEEDS	2800		3140		2980	

a From rating curve extended above 230,000 ft^3/s, maximum flow since 1692.
b From high-water mark in gage house.

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1968 to September 1978, May 1979 to current year.
pH: June 1968 to September 1978, May to September 1979, February 1980 to August 1982, April 1983 to current year.
WATER TEMPERATURE: October 1944 to September 1978, May 1979 to current year.
DISSOLVED OXYGEN: October 1962 to September 1978, May 1979 to current year.
SUSPENDED-SEDIMENT DISCHARGE: Water years 1949 to 1981.

INSTRUMENTATION.--Temperature recorder since October 1944, water-quality monitor since October 1962. Monitor probes are located within raw water intake of Trenton Filtration Plant.

REMARKS.--Missing continuous water-quality records are the result of malfunctions of the instrument, or interruptions of flow through the filtration plant. Unpublished records of suspended sediment discharge for the period October 1, 1981 to March 31, 1982 are available in files of the district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 377 microsiemens, Feb. 12, 1985; minimum, 63 microsiemens, July 7, 1984.
pH: Maximum, 10.3, Aug. 9,10, 1983; minimum, 5.3, June 22, 1972.
WATER TEMPERATURE: Maximum, 37.0 °C, July 21, 1977; minimum, 0.0 °C, on many days during the winter months.
DISSOLVED OXYGEN: Maximum, 20.0 mg/l, Feb. 11, 1989; minimum, 4.0 mg/l, Nov. 9, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 277 microsiemens, NOV. 10; minimum, 89 microsiemens, June 6.
pH: Maximum, 9.7, Feb. 14; minimum, 6.9, Nov. 24-26, June 5,6.
WATER TEMPERATURE: Maximum, 30.0 °C, July 15; minimum, 0.0 °C, on several days during the winter months.
DISSOLVED OXYGEN: Maximum, 17.9 mg/l, Feb. 14; minimum recorded, 6.0 mg/l, Aug. 29, but may have been lower during instrument malfuntion, July 6-20.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, BOD, and water-phase nutrients for Oct. 24, 1991 and April 9, 1992, were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991												
24...	1300	3680	195	7.8	13.5	--	12.2	116	<1.0	20	--	<20
NOV												
20...	1230	9750	236	8.7	10.0	0.80	13.5	120	--	--	K7	--
JAN 1992												
27...	1300	9860	143	7.5	1.0	2.5	--	--	E1.7	20	K7	10
MAR												
12...	1100	19000	153	7.4	--	4.0	--	91	--	--	--	--
28...	1200	28800	166	7.4	6.0	38	--	92	--	--	--	--
APR												
09...	1200	9310	162	7.9	11.0	--	14.2	128	E1.9	5	--	<10
20...	1025	22600	120	7.4	8.0	5.4	12.0	101	--	--	--	--
JUN												
02...	1345	39300	109	7.4	16.0	25	9.3	94	--	--	--	--
29...	1330	6340	172	7.8	25.5	1.4	10.8	132	E1.4	70	28	<10
AUG												
13...	1200	6780	178	7.8	26.0	2.0	9.5	117	<1.0	<20	41	<10

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L CACO3)	ALKA-LINITY LAB (MG/L AS CACO3)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 1991												
24...	--	66	17	5.7	11	1.5	--	--	44	--	25	17
NOV												
20...	<1	81	20	7.4	14	1.8	73	60	61	59	28	19
JAN 1992												
27...	K16	45	12	3.6	8.4	1.0	--	--	27	--	17	13
MAR												
12...	--	48	13	3.8	8.4	1.4	37	30	30	30	16	13
28...	--	54	15	4.0	9.2	1.2	--	--	29	--	20	16
APR												
09...	--	53	14	4.3	8.3	1.0	--	--	32	--	20	15
20...	--	37	10	2.8	6.2	0.80	--	--	21	--	15	12
JUN												
02...	--	34	9.5	2.4	5.6	0.90	28	23	21	24	13	9.4
29...	13	59	15	5.2	9.1	1.2	49	40	40	40	18	13
AUG												
13...	K4	62	16	5.4	9.5	1.3	43	36	44	36	19	14

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
OCT 1991											
24...	<0.1	2.7	111	0.009	0.009	0.93	0.94	0.16	0.25	0.39	0.34
NOV											
20...	0.1	--	131	0.020	0.010	1.00	1.00	<0.01	0.02	0.30	--
JAN 1992											
27...	0.2	4.0	79	<0.010	<0.010	0.73	0.73	0.03	0.03	0.30	--
MAR											
12...	0.2	3.7	82	0.020	0.010	0.87	0.83	0.08	0.08	0.90	--
28...	0.2	4.3	93	0.030	0.020	1.20	1.30	0.11	0.09	1.1	--
APR											
09...	<0.1	2.3	88	0.018	0.017	0.80	0.81	<0.03	<0.03	0.30	0.21
20...	0.2	3.0	65	0.010	0.010	0.59	0.59	0.03	0.03	0.30	--
JUN											
02...	<0.1	3.4	61	0.010	<0.010	0.54	0.57	0.05	0.03	0.90	--
29...	<0.1	1.8	90	0.010	<0.010	0.61	0.61	0.02	0.02	0.20	--
AUG											
13...	0.1	2.7	93	0.010	<0.010	0.67	0.70	0.02	0.01	0.30	--

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1991											
24...	1.3	1.3	0.06	0.06	--	--	3.9	0.3	2	20	86
NOV											
20...	1.3	--	0.08	0.07	0.07	0.06	--	--	3	79	70
JAN 1992											
27...	1.0	--	0.06	0.03	0.03	0.02	2.8	0.4	5	133	89
MAR											
12...	1.8	--	0.15	0.03	0.04	0.03	--	--	33	1690	94
28...	2.3	--	0.31	0.03	0.06	0.02	--	--	126	9800	93
APR											
09...	1.1	1.0	0.04	0.03	--	--	2.2	0.4	4	101	--
20...	0.89	--	0.07	<0.01	0.03	0.02	--	--	24	1460	85
JUN											
02...	1.4	--	0.13	0.04	0.03	0.02	--	--	94	9970	84
29...	0.81	--	0.07	<0.01	0.05	0.03	2.3	0.4	5	86	85
AUG											
13...	0.97	--	0.06	0.06	0.05	0.05	3.0	0.4	5	92	--

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
NOV 1991									
20...	1230	--	<10	--	24	--	--	--	--
JAN 1992									
27...	1300	--	20	--	24	--	--	--	--
JUN									
29...	1330	14	30	<1	24	<10	20	<1	<1
AUG									
13...	1200	--	20	--	24	--	--	--	--

DATE	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
NOV 1991									
20...	<3	--	--	6	--	<4	--	2	--
JAN 1992									
27...	<3	--	--	23	--	5	--	17	--
JUN									
29...	<3	4	130	22	<1	<4	20	<1	<0.10
AUG									
13...	<3	--	--	20	--	<4	--	7	--

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
NOV 1991									
20...	<10	--	<1	--	<1	<1.0	82	<6	--
JAN 1992									
27...	<10	--	<1	--	<1	<1.0	51	<6	--
JUN									
29...	<10	2	2	<1	<1	<1.0	70	<6	30
AUG									
13...	<10	--	2	--	<1	<1.0	74	<6	--

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	236	222	230	244	241	242	149	143	146	197	190	194
2	249	236	240	252	245	249	152	147	149	190	177	185
3	254	249	252	258	252	255	158	142	151	---	---	---
4	251	240	247	264	254	261	165	142	155	183	176	179
5	241	237	239	265	259	262	---	---	---	184	178	182
6	241	238	240	262	256	259	136	130	132	180	175	178
7	238	232	236	263	259	261	141	137	139	179	177	177
8	240	232	236	272	264	268	145	141	144	---	---	---
9	252	240	248	274	270	272	152	145	149	168	165	167
10	245	224	233	277	271	275	159	150	156	171	165	167
11	224	207	216	270	252	261	164	157	161	176	171	173
12	221	211	217	256	243	249	161	158	159	182	176	180
13	228	221	225	249	242	244	160	157	158	182	176	179
14	239	229	236	250	246	248	167	160	163	187	176	182
15	239	210	232	248	239	245	168	164	166	196	182	187
16	224	216	220	239	234	236	164	152	160	203	175	193
17	216	186	206	236	227	231	152	146	147	172	147	157
18	216	209	212	---	---	---	152	146	148	---	---	---
19	226	210	218	239	236	238	156	152	153	169	153	159
20	213	192	203	240	237	239	158	156	157	176	169	172
21	191	181	185	243	234	241	168	159	163	183	176	180
22	188	182	186	239	200	221	179	169	173	---	---	---
23	195	186	190	250	210	234	179	173	176	194	186	189
24	---	---	---	237	114	170	173	169	171	191	175	184
25	212	201	206	111	105	109	174	170	171	188	170	183
26	226	212	219	113	105	109	179	174	178	169	152	159
27	233	227	230	122	113	117	178	174	176	153	147	150
28	244	234	238	133	122	128	181	173	177	165	153	157
29	249	243	246	136	133	135	185	179	182	172	163	167
30	250	245	248	144	135	139	184	180	181	172	161	166
31	---	---	---	---	---	---	197	184	193	166	157	160
MONTH	254	181	225	277	105	221	197	130	161	203	147	174

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	166	161	163	171	167	169	136	133	134	134	127	130
2	169	163	165	167	163	165	137	134	135	139	134	137
3	171	165	168	167	165	166	139	135	137	144	139	142
4	179	170	175	167	165	166	141	138	140	---	---	---
5	185	179	182	171	166	168	143	141	142	142	139	141
6	187	174	180	173	168	170	147	143	145	142	137	139
7	178	174	176	177	169	173	148	144	147	141	140	141
8	184	179	182	176	169	172	154	148	151	146	141	144
9	186	180	182	168	161	166	160	153	157	160	145	147
10	182	179	181	161	149	155	162	157	159	163	133	148
11	194	181	185	---	---	---	163	159	161	134	132	133
12	---	---	---	152	141	149	162	160	161	135	132	133
13	216	209	213	137	112	120	160	158	159	140	136	139
14	211	202	207	118	111	114	---	---	---	148	139	144
15	252	199	208	124	117	119	142	138	140	153	147	150
16	258	221	238	130	125	128	143	141	142	160	152	156
17	226	219	223	135	130	133	151	143	147	167	160	163
18	222	219	220	---	---	---	154	150	153	161	153	157
19	221	207	215	155	140	148	150	124	141	157	153	156
20	206	186	194	161	153	157	123	107	115	158	153	156
21	189	182	185	---	---	---	108	106	107	153	149	150
22	187	181	184	---	---	---	114	106	112	161	153	156
23	187	177	181	181	167	173	121	114	117	165	161	163
24	178	171	174	182	178	180	124	120	122	176	169	172
25	186	176	182	187	182	184	122	119	120	176	173	174
26	190	186	189	186	180	183	126	122	124	176	173	175
27	187	180	183	193	165	178	123	114	118	---	---	---
28	180	173	177	190	136	166	117	114	115	176	173	173
29	172	169	171	134	124	128	119	117	118	176	165	170
30	---	---	---	129	125	126	127	120	122	169	165	166
31	---	---	---	135	129	132	---	---	---	173	141	164
MONTH	258	161	189	193	111	155	163	106	136	176	127	152

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	173	122	157	183	172	177	182	177	179	217	213	215
2	122	94	107	184	172	178	184	176	181	220	216	217
3	98	94	95	176	172	175	---	---	---	221	218	220
4	102	94	98	183	175	181	166	157	161	---	---	---
5	109	102	106	191	181	186	170	159	165	242	221	229
6	123	89	107	196	189	191	179	170	173	247	237	243
7	---	---	---	202	195	198	181	178	179	237	228	232
8	108	104	107	204	197	202	178	175	177	228	216	221
9	119	108	114	196	184	192	180	178	179	223	219	221
10	119	115	118	193	184	187	187	180	184	222	216	220
11	121	118	119	190	180	183	202	188	196	223	214	218
12	128	120	122	181	173	177	193	186	188	236	222	226
13	---	---	---	176	173	175	187	181	183	242	235	240
14	---	---	---	188	175	182	181	176	178	233	204	219
15	---	---	---	194	187	190	192	177	184	205	191	195
16	---	---	---	207	194	201	195	191	193	195	192	193
17	---	---	---	---	---	---	198	192	194	204	196	200
18	---	---	---	195	182	188	207	197	200	207	204	206
19	169	149	163	184	175	180	215	207	210	209	205	207
20	183	168	175	175	169	171	217	215	216	215	204	208
21	186	181	183	179	171	175	222	216	219	219	213	215
22	186	180	182	181	179	180	222	214	218	229	219	225
23	184	181	183	---	---	---	216	212	213	228	214	223
24	187	184	185	184	180	182	217	214	216	217	210	212
25	188	181	184	202	181	195	215	210	213	221	213	219
26	192	184	189	199	198	199	219	211	215	213	194	202
27	189	179	183	203	195	200	226	221	223	205	202	204
28	181	177	178	198	193	196	230	224	227	225	206	218
29	176	173	175	199	191	195	226	216	222	219	207	211
30	172	169	170	191	180	185	216	211	214	207	202	204
31	---	---	---	180	160	174	218	215	217	---	---	---
MONTH	---	---	---	207	160	186	230	157	197	247	191	216

PH (STANDARD UNITS), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	8.5	7.8	8.1	7.2	7.2	7.2	7.9	7.6	7.7
2	8.8	7.7	8.2	8.4	7.6	7.9	7.3	7.1	7.2	7.9	7.5	7.7
3	8.8	7.8	8.2	8.6	7.6	8.0	7.3	7.1	7.2	---	---	---
4	8.9	7.9	8.4	8.6	7.7	8.1	7.3	7.1	7.2	7.7	7.4	7.5
5	8.8	8.0	8.4	8.7	7.7	8.2	---	---	---	7.9	7.4	7.6
6	8.4	7.9	8.1	8.7	7.8	8.2	7.2	7.2	7.2	8.0	7.5	7.7
7	8.8	7.9	8.4	8.7	7.8	8.3	7.3	7.2	7.2	8.0	7.5	7.7
8	9.1	8.3	8.6	8.7	7.8	8.3	7.3	7.2	7.3	---	---	---
9	9.1	8.4	8.7	8.8	8.0	8.4	7.4	7.2	7.3	7.7	7.4	7.5
10	9.1	8.4	8.7	8.5	8.0	8.3	7.4	7.3	7.4	7.8	7.3	7.5
11	8.7	7.9	8.4	8.2	7.7	7.9	7.5	7.3	7.4	8.2	7.4	7.7
12	9.0	7.8	8.3	8.6	7.6	8.1	7.4	7.3	7.4	8.4	7.5	7.9
13	8.9	8.0	8.4	8.7	7.8	8.2	7.4	7.3	7.3	8.6	7.5	8.0
14	9.1	8.1	8.6	8.8	7.8	8.3	7.4	7.3	7.3	8.5	7.5	7.7
15	8.4	7.9	8.2	8.6	7.7	8.1	7.5	7.3	7.4	8.1	7.5	7.8
16	8.8	7.8	8.2	8.6	7.6	8.0	7.6	7.4	7.5	7.9	7.7	7.8
17	8.2	7.9	8.0	8.8	7.6	8.1	7.5	7.4	7.5	7.7	7.5	7.6
18	8.2	7.8	8.0	---	---	---	7.5	7.4	7.5	---	---	---
19	8.2	7.9	8.0	8.9	7.8	8.3	7.5	7.4	7.5	8.1	7.5	7.7
20	8.4	7.8	8.0	8.9	7.6	8.2	7.5	7.4	7.5	8.2	7.5	7.8
21	8.6	7.8	8.1	8.4	7.5	7.9	7.6	7.4	7.5	8.2	7.6	7.8
22	8.8	7.9	8.3	7.7	7.2	7.4	7.6	7.5	7.5	---	---	---
23	8.9	7.9	8.3	7.4	7.1	7.3	7.6	7.4	7.5	7.8	7.6	7.7
24	---	---	---	7.3	6.9	7.1	7.6	7.4	7.5	8.0	7.5	7.7
25	8.7	7.8	8.1	6.9	6.9	6.9	7.7	7.5	7.5	7.8	7.6	7.7
26	8.9	7.9	8.3	7.0	6.9	7.0	7.7	7.5	7.6	7.8	7.5	7.7
27	8.9	7.9	8.3	7.1	7.0	7.1	7.7	7.4	7.5	7.9	7.5	7.7
28	8.7	7.8	8.2	7.2	7.1	7.2	7.7	7.5	7.6	8.2	7.6	7.8
29	8.9	7.9	8.3	7.3	7.2	7.2	7.6	7.4	7.5	8.3	7.6	7.9
30	8.8	8.1	8.4	7.3	7.2	7.2	7.7	7.4	7.5	8.4	7.6	7.9
31	---	---	---	---	---	---	7.9	7.5	7.7	8.3	7.7	7.9
MONTH	9.1	7.7	8.3	8.9	6.9	7.8	7.9	7.1	7.4	8.6	7.3	7.7

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.6	7.7	8.0	8.9	7.9	8.4	7.8	7.5	7.7	8.6	7.9	8.1
2	8.7	7.8	8.2	8.8	7.8	8.2	8.0	7.6	7.8	8.7	7.9	8.2
3	8.9	7.8	8.3	8.9	7.7	8.2	8.2	7.7	7.9	8.7	7.9	8.2
4	9.0	7.9	8.4	9.1	7.9	8.5	8.3	7.7	8.0	---	---	---
5	9.1	7.9	8.4	9.2	8.0	8.6	8.5	7.8	8.1	8.6	7.8	8.1
6	9.2	8.0	8.6	9.0	7.8	8.4	8.7	7.8	8.2	8.6	7.8	8.2
7	9.2	8.0	8.6	8.2	7.5	7.8	8.8	7.8	8.2	8.6	7.9	8.2
8	9.2	8.0	8.5	8.8	7.5	8.1	9.0	7.8	8.4	8.1	7.8	7.9
9	9.3	8.0	8.7	8.9	7.8	8.4	9.0	8.0	8.4	7.9	7.7	7.8
10	9.5	8.1	8.8	8.5	7.6	8.1	9.2	7.8	8.5	7.7	7.6	7.7
11	9.6	8.0	8.9	---	---	---	8.7	7.9	8.2	7.9	7.6	7.7
12	---	---	---	7.5	7.3	7.4	9.1	7.7	8.3	7.9	7.6	7.7
13	9.4	8.4	8.8	7.3	7.2	7.2	9.3	7.9	8.6	7.8	7.5	7.6
14	9.7	8.1	8.9	7.3	7.1	7.2	---	---	---	8.2	7.5	7.7
15	9.5	8.2	8.8	7.5	7.2	7.4	9.3	8.2	8.8	7.9	7.5	7.6
16	9.3	8.0	8.5	7.7	7.4	7.5	8.7	7.7	8.2	7.6	7.4	7.5
17	9.5	8.1	8.8	7.7	7.5	7.6	9.1	7.6	8.1	7.9	7.4	7.6
18	9.1	8.0	8.5	---	---	---	8.7	7.8	8.1	7.8	7.5	7.6
19	9.3	7.9	8.5	7.8	7.5	7.6	7.9	7.6	7.8	8.2	7.5	7.8
20	9.2	7.9	8.6	8.2	7.6	7.8	7.7	7.5	7.6	8.2	7.7	7.9
21	9.5	8.0	8.7	---	---	---	7.6	7.4	7.5	8.3	7.6	7.9
22	9.4	8.2	8.8	---	---	---	7.8	7.5	7.6	8.4	7.7	8.0
23	9.4	8.0	8.7	8.6	7.7	8.1	8.1	7.5	7.7	8.5	7.6	8.0
24	9.2	8.0	8.5	8.8	7.9	8.3	7.7	7.5	7.7	8.5	7.6	8.0
25	8.7	7.7	8.1	8.9	7.9	8.4	7.7	7.5	7.6	8.4	7.7	7.9
26	8.8	7.6	8.1	8.7	7.8	8.2	7.9	7.6	7.8	8.5	7.8	8.1
27	8.7	7.7	8.1	7.8	7.5	7.6	7.9	7.7	7.8	---	---	---
28	8.7	7.7	8.1	7.7	7.4	7.5	7.9	7.7	7.8	8.6	7.8	8.2
29	8.8	7.7	8.2	7.4	7.4	7.4	8.2	7.7	7.9	8.8	7.9	8.3
30	---	---	---	7.5	7.4	7.4	8.3	7.8	8.0	8.6	7.8	8.2
31	---	---	---	7.7	7.4	7.5	---	---	---	7.8	7.6	7.7
MONTH	9.7	7.6	8.5	9.2	7.1	7.9	9.3	7.4	8.0	8.8	7.4	7.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.7	7.4	7.6	8.8	7.4	8.1	8.9	7.5	8.1	9.6	7.9	8.8
2	7.4	7.2	7.3	8.8	7.3	8.0	9.0	7.7	8.2	9.6	8.0	8.9
3	7.3	7.1	7.2	7.8	7.3	7.5	---	---	---	9.2	7.9	8.5
4	7.5	7.4	7.4	8.6	7.2	7.7	8.9	7.7	8.1	---	---	---
5	7.5	6.9	7.4	8.9	7.3	8.0	9.0	7.6	8.2	9.0	7.9	8.4
6	7.4	6.9	7.1	8.7	7.3	7.8	9.2	7.7	8.4	9.0	7.9	8.4
7	---	---	---	8.8	7.3	8.0	9.4	7.7	8.6	9.0	7.9	8.3
8	7.4	7.3	7.3	8.8	7.4	7.9	9.3	7.8	8.6	9.4	7.8	8.5
9	7.4	7.3	7.3	8.9	7.3	7.9	9.3	7.8	8.4	9.5	7.9	8.6
10	7.7	7.3	7.4	8.2	7.3	7.6	9.4	7.8	8.6	9.3	7.9	8.5
11	7.6	7.4	7.5	8.4	7.2	7.7	9.3	7.8	8.4	9.5	7.8	8.6
12	7.6	7.4	7.5	7.7	7.2	7.4	9.2	7.7	8.4	9.4	8.0	8.7
13	---	---	---	8.5	7.2	7.7	9.0	7.7	8.3	9.3	8.0	8.6
14	---	---	---	8.8	7.2	7.8	8.9	7.7	8.2	9.4	8.0	8.7
15	---	---	---	8.6	7.2	7.7	8.3	7.7	7.9	9.2	7.9	8.5
16	---	---	---	8.1	7.3	7.7	8.5	7.7	8.0	9.3	7.6	8.4
17	---	---	---	---	---	---	8.8	7.7	8.1	9.3	7.6	8.5
18	---	---	---	7.7	7.4	7.5	9.3	7.8	8.5	9.3	7.6	8.5
19	7.8	7.3	7.6	8.0	7.3	7.6	9.3	7.8	8.5	9.2	7.5	8.3
20	8.1	7.4	7.7	8.3	7.3	7.7	9.4	7.9	8.6	9.3	7.6	8.5
21	8.4	7.6	8.0	8.5	7.2	7.7	9.4	7.9	8.7	9.0	7.6	8.3
22	8.5	7.8	8.1	8.6	7.2	7.8	9.5	7.9	8.7	9.1	7.6	8.3
23	8.9	7.9	8.4	---	---	---	9.5	7.9	8.8	9.3	7.6	8.5
24	8.8	8.0	8.4	7.8	7.3	7.5	9.6	7.9	8.9	9.2	7.8	8.5
25	8.9	7.8	8.4	8.7	7.3	7.9	9.6	7.9	8.9	8.5	7.7	8.1
26	8.8	8.1	8.5	8.2	7.5	7.8	9.6	7.9	8.8	8.4	7.5	7.8
27	8.8	8.0	8.4	8.6	7.5	8.0	9.6	7.9	8.8	8.3	7.6	7.9
28	8.8	7.9	8.4	8.8	7.5	8.1	9.5	7.9	8.7	8.7	7.6	8.0
29	8.9	7.7	8.3	8.9	7.6	8.2	9.4	7.8	8.7	9.2	7.7	8.4
30	8.9	7.6	8.2	9.0	7.7	8.2	9.5	7.9	8.7	9.1	7.7	8.4
31	---	---	---	8.8	7.5	7.8	9.6	7.9	8.8	---	---	---
MONTH	---	---	---	9.0	7.2	7.8	9.6	7.5	8.5	9.6	7.5	8.4

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.5	15.5	17.0	13.0	12.0	12.5	8.0	8.0	8.0	3.0	1.5	2.5
2	20.5	16.5	18.5	14.0	12.5	13.0	8.0	8.0	8.0	4.0	2.5	3.0
3	20.5	18.0	19.0	13.5	11.0	12.5	8.0	8.0	8.0	---	---	---
4	21.5	18.0	20.0	11.0	9.0	10.5	8.0	6.0	7.5	4.5	4.0	4.5
5	21.5	19.0	20.5	11.0	8.0	9.0	---	---	---	5.5	4.5	5.0
6	20.5	17.0	19.5	10.0	7.0	8.5	5.0	4.0	4.5	5.0	4.0	4.5
7	17.5	15.5	16.5	9.0	7.0	8.0	4.0	3.5	4.0	5.0	3.5	4.0
8	17.5	14.5	15.5	8.0	7.0	7.5	4.0	3.5	4.0	---	---	---
9	17.5	14.0	15.5	8.0	6.5	7.5	5.0	4.0	5.0	4.0	4.0	4.0
10	18.0	14.5	16.5	7.0	6.5	7.0	6.0	5.0	5.5	4.0	3.5	4.0
11	16.5	15.0	15.5	7.5	6.5	7.0	6.0	5.0	5.5	3.5	3.0	3.5
12	16.5	13.5	15.0	8.0	6.0	7.0	6.0	5.5	6.0	4.0	3.0	3.5
13	15.5	13.5	14.5	8.0	6.5	7.5	7.0	6.0	6.5	5.0	3.5	4.0
14	16.0	12.5	14.0	10.0	6.5	8.0	7.5	6.5	7.0	7.0	4.5	5.5
15	14.0	13.0	13.5	9.0	7.5	8.0	6.5	5.0	6.0	4.5	3.0	3.5
16	15.0	13.5	14.0	10.0	8.5	9.0	5.0	3.5	4.5	3.0	1.5	2.5
17	13.5	12.0	13.0	9.5	7.0	8.0	3.5	3.0	3.5	1.5	1.0	1.0
18	14.0	12.0	13.0	---	---	---	3.0	2.0	3.0	---	---	---
19	15.0	13.0	14.0	10.0	7.0	8.5	2.0	.5	1.0	.0	.0	.0
20	13.5	12.0	13.0	12.0	8.0	10.0	1.0	.0	.5	.0	.0	.0
21	13.0	11.0	12.0	12.0	10.5	11.5	2.0	1.0	1.5	.0	.0	.0
22	14.0	11.0	12.5	13.5	12.0	12.5	2.5	1.5	2.0	---	---	---
23	14.5	11.5	13.0	13.5	12.5	13.0	2.5	2.0	2.5	3.5	1.0	2.0
24	---	---	---	12.5	10.0	11.5	3.0	2.0	2.5	4.0	2.0	3.0
25	15.5	14.0	14.5	10.0	8.5	9.5	3.0	2.0	2.5	2.0	1.0	1.5
26	16.0	14.0	15.0	8.5	7.0	7.5	2.5	1.5	2.0	1.5	.5	1.0
27	17.5	14.5	16.0	7.0	6.0	6.5	3.0	1.5	2.5	1.0	.5	.5
28	17.5	14.5	16.0	6.0	5.5	5.5	3.0	1.5	2.5	2.0	.5	1.0
29	15.0	12.0	13.5	7.0	5.5	6.5	4.0	2.5	3.5	2.5	1.0	1.5
30	14.0	10.5	12.5	7.5	6.0	7.0	4.0	3.5	4.0	2.5	1.5	2.0
31	---	---	---	---	---	---	3.5	2.5	3.0	3.0	2.0	2.5
MONTH	21.5	10.5	15.5	14.0	5.5	9.0	8.0	.0	4.0	7.0	.0	2.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	1.0	2.0	---	---	---	7.5	6.0	7.0	15.0	13.0	14.0
2	1.0	.0	.5	5.0	3.5	4.5	7.0	6.5	7.0	17.0	14.5	16.0
3	2.0	.0	1.0	5.0	4.5	4.5	7.0	5.5	6.5	18.0	16.5	17.5
4	2.0	.5	1.5	6.0	4.5	5.0	7.5	6.0	7.0	---	---	---
5	2.0	.5	1.5	6.0	5.0	5.5	8.0	6.5	7.0	16.5	15.0	16.0
6	2.5	1.0	1.5	6.0	5.5	5.5	9.0	6.5	8.0	16.0	14.0	15.0
7	2.5	1.5	2.0	6.5	5.5	6.0	9.5	8.0	8.5	14.5	13.5	14.0
8	2.5	2.0	2.0	8.0	6.0	7.0	11.5	9.0	10.0	13.5	13.0	13.5
9	2.0	.5	1.5	8.5	7.5	8.0	11.0	10.0	10.5	14.5	13.0	14.0
10	2.5	.0	1.0	8.5	7.5	8.0	12.5	10.0	11.0	14.5	13.5	14.0
11	3.0	.0	1.5	---	---	---	12.0	11.0	11.5	15.5	13.5	14.5
12	---	---	---	7.0	5.5	6.5	11.5	10.5	11.0	17.0	14.5	16.0
13	1.0	.5	.5	6.0	4.0	5.0	12.0	9.5	10.5	18.5	17.0	17.5
14	3.5	.5	2.0	4.0	3.0	3.5	---	---	---	20.5	18.0	19.5
15	3.5	2.0	2.5	3.5	2.5	3.5	12.0	10.0	11.0	20.0	18.5	19.0
16	4.5	3.0	3.5	3.5	2.0	3.0	11.0	10.0	10.5	18.0	17.0	17.5
17	5.0	3.0	4.0	4.0	2.5	3.0	10.5	9.5	10.0	19.0	17.0	17.5
18	4.5	4.0	4.0	---	---	---	10.5	9.5	10.0	18.0	17.5	17.5
19	5.5	4.0	4.5	4.0	3.0	3.5	9.5	8.5	9.0	19.0	17.0	18.0
20	4.5	2.5	3.5	4.5	3.0	4.0	8.5	8.0	8.0	19.0	17.0	18.0
21	---	---	---	---	---	---	10.5	8.0	9.0	20.5	17.5	19.0
22	4.5	2.0	3.5	---	---	---	12.0	10.5	11.0	22.0	19.0	20.5
23	5.5	3.5	4.5	5.0	3.5	4.0	14.5	12.0	13.0	24.0	20.0	22.0
24	5.0	4.0	5.0	6.0	4.0	5.0	15.0	13.5	14.5	24.0	21.0	22.5
25	---	---	---	7.0	4.5	5.5	14.5	14.0	14.0	21.0	18.5	19.5
26	---	---	---	7.0	6.0	6.5	14.0	13.0	13.5	18.5	17.0	18.0
27	5.0	3.5	4.5	7.5	7.0	7.0	13.5	12.5	13.0	---	---	---
28	5.0	4.5	4.5	7.0	5.0	6.0	13.0	12.0	12.5	18.0	15.5	17.0
29	5.0	2.0	4.5	5.5	4.5	5.0	14.0	11.5	12.5	19.5	16.5	18.0
30	---	---	---	5.5	5.0	5.0	13.5	12.5	13.0	18.0	17.5	17.5
31	---	---	---	7.5	5.5	6.5	---	---	---	17.5	17.0	17.0
MONTH	5.5	.0	2.5	8.5	2.0	5.0	15.0	5.5	10.5	24.0	13.0	17.0

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	16.0	16.5	27.0	24.0	25.5	25.0	23.0	24.0	25.0	22.5	23.5
2	16.5	15.5	16.0	27.0	24.5	25.5	25.5	23.0	24.0	24.0	22.0	23.0
3	17.5	15.5	16.5	25.0	22.5	24.0	---	---	---	23.5	22.0	23.0
4	18.5	16.5	17.5	24.5	22.0	23.0	25.0	23.5	24.0	---	---	---
5	18.5	18.0	18.0	26.5	22.5	24.5	25.0	22.5	24.0	24.0	23.0	23.5
6	18.5	17.0	17.5	26.5	24.0	25.0	26.0	23.0	24.0	23.0	22.0	22.5
7	---	---	---	26.5	23.5	25.0	26.0	23.0	24.5	22.5	22.0	22.0
8	19.5	18.0	19.0	26.5	24.0	25.0	25.0	23.0	24.0	24.5	22.0	23.0
9	21.0	19.5	20.0	27.5	24.0	25.5	26.0	23.5	24.5	25.5	22.5	24.0
10	21.0	19.5	20.5	27.0	25.0	26.0	27.0	24.5	25.5	25.5	23.5	24.5
11	21.5	19.5	20.5	27.5	25.5	26.5	27.0	25.0	26.0	25.5	23.5	24.5
12	22.0	20.0	21.0	26.5	25.5	26.0	26.0	24.5	25.0	24.0	22.0	23.0
13	---	---	---	27.5	25.0	26.0	25.0	24.0	24.5	23.5	21.5	22.5
14	---	---	---	29.0	25.5	27.5	24.0	23.0	23.5	23.5	21.0	22.0
15	---	---	---	30.0	27.0	28.0	23.0	21.5	22.0	23.0	20.5	22.0
16	---	---	---	27.5	25.5	27.0	21.5	20.5	21.0	23.5	21.0	22.0
17	---	---	---	---	---	---	21.5	20.5	21.0	24.5	21.5	23.0
18	---	---	---	25.5	24.5	25.0	22.5	20.5	21.5	25.0	22.0	23.5
19	22.5	21.0	22.0	26.0	24.0	25.0	23.5	21.0	22.5	23.5	22.5	23.0
20	23.5	21.0	22.5	27.5	24.5	26.0	24.0	21.5	22.5	23.5	21.0	22.0
21	23.0	21.0	22.0	28.5	25.5	27.0	24.5	21.5	23.0	22.0	21.0	21.5
22	21.0	19.0	20.0	27.0	25.5	26.5	24.0	21.5	23.0	23.5	21.5	22.5
23	21.5	18.0	19.5	---	---	---	25.0	21.5	23.5	23.0	20.5	22.0
24	21.5	19.5	20.5	24.0	22.5	23.0	26.0	22.5	24.0	20.5	18.5	19.5
25	22.5	19.5	21.0	24.5	22.0	23.0	26.5	23.5	25.0	19.0	17.5	18.0
26	23.5	20.5	22.0	23.5	22.5	23.0	28.0	25.0	26.0	17.5	17.0	17.0
27	23.5	21.5	22.5	25.0	22.5	23.5	28.0	25.5	26.5	18.0	17.0	17.5
28	24.5	22.0	23.0	24.5	23.0	23.5	28.0	26.0	27.0	18.0	17.5	17.5
29	25.5	22.5	24.0	25.0	22.0	23.5	26.5	24.0	25.0	18.5	17.0	17.5
30	26.0	23.0	24.5	26.5	23.5	25.0	25.0	22.5	24.0	16.5	15.0	16.0
31	---	---	---	26.0	24.0	24.5	25.0	23.0	24.0	---	---	---
MONTH	---	---	---	30.0	22.0	25.0	28.0	20.5	24.0	25.5	15.0	21.5

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	11.4	11.0	11.2	13.5	12.7	13.0
2	11.4	8.3	9.6	---	---	---	11.1	10.7	10.9	13.4	12.7	13.0
3	10.7	8.2	9.2	---	---	---	10.7	10.4	10.5	---	---	---
4	11.3	8.2	9.5	---	---	---	10.9	10.4	10.6	12.8	12.1	12.5
5	10.6	8.2	9.2	---	---	---	---	---	---	12.9	11.9	12.3
6	9.5	7.7	8.5	---	---	---	12.0	11.7	11.9	13.2	12.0	12.5
7	10.7	8.1	9.4	---	---	---	12.4	12.0	12.2	13.3	12.1	12.6
8	11.5	9.4	10.2	13.1	10.9	11.8	12.4	12.1	12.2	---	---	---
9	11.8	9.8	10.6	13.6	10.9	12.1	12.2	11.7	12.0	13.1	12.3	12.6
10	11.7	9.6	10.5	13.1	10.9	12.0	11.9	11.6	11.7	13.4	12.2	12.7
11	10.5	8.8	9.7	12.4	10.8	11.5	11.9	11.5	11.7	14.0	12.5	13.1
12	11.5	8.7	9.9	13.6	10.9	12.1	11.9	11.5	11.6	14.4	12.7	13.4
13	11.7	9.4	10.4	13.8	11.3	12.4	11.6	11.2	11.4	14.8	12.8	13.6
14	12.2	9.9	10.8	14.3	11.3	12.5	11.2	11.0	11.1	13.9	11.9	12.7
15	10.5	9.4	10.1	13.6	11.2	12.1	11.6	10.9	11.3	13.4	12.0	12.6
16	11.9	9.1	10.3	13.4	10.7	11.8	12.2	11.5	11.9	13.4	12.5	13.0
17	10.7	9.8	10.2	13.8	10.7	12.0	12.6	12.1	12.3	13.8	13.1	13.4
18	10.9	9.6	10.2	---	---	---	12.8	12.3	12.5	---	---	---
19	10.8	9.7	10.1	14.5	11.2	12.5	13.4	12.7	13.1	15.2	14.4	14.7
20	11.3	9.8	10.5	14.1	10.9	12.2	13.8	13.4	13.5	15.3	14.4	14.8
21	11.9	10.3	11.0	12.2	9.8	10.9	13.4	13.0	13.3	15.2	14.2	14.6
22	12.4	10.5	11.3	10.0	8.8	9.5	13.3	12.8	13.0	---	---	---
23	12.5	10.5	11.3	9.6	8.2	8.7	13.0	12.6	12.8	14.2	12.9	13.7
24	---	---	---	9.7	8.8	9.3	13.0	12.4	12.7	13.8	12.7	13.2
25	12.5	10.1	11.0	10.4	9.7	10.1	13.2	12.6	12.8	13.8	13.0	13.5
26	12.9	9.8	11.1	11.0	10.4	10.7	13.4	12.7	13.0	14.6	13.7	14.1
27	13.1	9.7	11.1	11.6	11.0	11.4	13.5	12.8	13.1	15.1	14.1	14.6
28	13.1	9.4	11.0	12.0	11.5	11.8	13.5	12.9	13.1	15.4	14.3	14.7
29	13.7	9.9	11.5	12.1	11.6	11.8	12.9	12.2	12.6	15.3	14.1	14.6
30	13.9	10.6	12.0	12.1	11.4	11.7	12.8	12.0	12.3	14.8	13.7	14.3
31	---	---	---	---	---	---	13.3	12.3	12.8	14.1	13.1	13.6
MONTH	13.9	7.7	10.4	---	---	---	13.8	10.4	12.2	15.4	11.9	13.5

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.3	12.9	13.5	15.0	12.6	13.6	12.5	11.5	11.9	10.9	9.7	10.3
2	14.8	13.2	14.0	14.2	12.4	13.3	12.2	11.3	11.8	10.9	9.4	10.1
3	15.2	13.4	14.2	14.7	12.3	13.3	12.5	11.5	12.0	10.6	8.9	9.7
4	15.4	13.4	14.2	15.3	12.5	13.6	12.8	11.5	12.1	---	---	---
5	15.2	13.1	14.0	15.2	12.5	13.6	12.8	11.6	12.2	10.5	8.8	9.6
6	15.4	13.2	14.2	14.4	12.3	13.1	13.2	11.6	12.3	11.0	9.2	10.1
7	15.5	13.1	14.2	12.9	11.4	12.1	13.1	11.4	12.1	11.2	9.5	10.3
8	15.3	13.0	13.9	13.6	11.2	12.3	13.2	11.0	12.0	10.4	9.7	10.0
9	15.6	12.9	14.2	13.7	11.5	12.6	13.0	10.8	11.7	10.0	9.0	9.6
10	16.8	13.5	15.0	12.8	11.3	12.0	13.7	10.5	11.9	9.6	8.9	9.2
11	17.7	13.7	15.4	---	---	---	11.9	10.5	11.1	10.1	9.2	9.6
12	---	---	---	11.5	10.7	11.1	13.0	10.2	11.3	10.3	9.2	9.7
13	16.1	13.7	14.6	11.9	11.2	11.7	14.1	10.6	12.2	9.7	8.7	9.1
14	17.9	13.0	15.1	12.3	11.9	12.2	---	---	---	10.0	8.3	9.1
15	16.0	12.7	14.1	12.9	12.3	12.6	13.8	10.8	12.2	9.4	8.2	8.8
16	15.1	12.2	13.4	13.4	12.6	12.9	11.5	10.5	11.0	9.0	8.4	8.7
17	16.1	12.4	14.0	13.3	12.7	12.9	13.1	10.3	11.3	10.1	8.6	9.2
18	14.4	12.4	13.2	---	---	---	12.3	10.6	11.3	9.7	8.8	9.2
19	15.5	11.9	13.3	12.8	12.3	12.5	11.2	10.6	11.0	10.4	8.9	9.6
20	14.9	12.1	13.4	13.4	12.3	12.8	11.5	11.1	11.3	10.4	9.1	9.7
21	15.8	12.5	14.0	---	---	---	11.5	10.9	11.2	10.4	8.9	9.7
22	16.1	12.6	14.1	---	---	---	11.2	10.5	10.8	10.3	8.7	9.5
23	16.1	12.4	14.0	13.7	12.1	12.9	11.1	10.1	10.5	10.1	8.4	9.2
24	14.7	12.2	13.3	14.2	12.3	13.2	10.1	9.5	9.8	9.9	8.1	8.9
25	14.1	12.0	12.7	14.3	12.2	13.2	9.7	9.2	9.5	9.8	7.9	8.8
26	13.9	11.7	12.7	13.3	11.6	12.5	10.2	9.4	9.8	10.3	8.5	9.4
27	13.8	12.0	12.7	11.6	10.9	11.1	10.4	9.7	10.0	---	---	---
28	14.0	12.0	12.8	11.6	10.9	11.2	10.7	9.9	10.2	11.0	9.3	10.2
29	14.1	11.9	12.9	12.0	11.6	11.9	11.0	10.1	10.5	11.2	9.3	10.2
30	---	---	---	12.0	11.8	11.9	10.9	10.0	10.4	10.4	9.3	9.8
31	---	---	---	12.2	11.6	11.9	---	---	---	9.3	8.7	9.0
MONTH	17.9	11.7	13.8	15.3	10.7	12.5	14.1	9.2	11.2	11.2	7.9	9.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.1	8.9	8.9	9.9	7.0	8.5	9.6	6.9	8.1	12.0	6.8	9.2
2	9.2	9.1	9.2	10.1	6.6	8.4	9.6	7.1	8.2	11.9	6.9	9.2
3	9.3	8.9	9.1	8.3	6.5	7.4	---	---	---	10.5	6.8	8.4
4	9.1	8.6	8.9	9.5	6.2	7.6	---	---	---	---	---	---
5	8.6	8.3	8.5	9.5	6.3	7.7	---	---	---	9.5	6.7	8.0
6	8.7	8.2	8.5	---	---	---	---	---	---	10.1	6.6	8.2
7	---	---	---	---	---	---	---	---	---	9.9	6.7	8.1
8	8.5	8.3	8.4	---	---	---	10.6	7.5	8.9	11.0	6.9	8.7
9	8.3	8.2	8.3	---	---	---	10.7	7.3	8.7	11.6	6.9	9.0
10	8.4	8.2	8.3	---	---	---	11.2	7.2	9.0	10.8	6.7	8.4
11	8.6	8.0	8.3	---	---	---	10.8	7.1	8.4	11.2	6.5	8.5
12	8.6	8.1	8.3	---	---	---	10.7	6.8	8.6	10.9	6.9	8.7
13	---	---	---	---	---	---	10.3	7.1	8.5	10.8	7.3	8.8
14	---	---	---	---	---	---	9.9	7.1	8.5	11.2	7.5	9.1
15	---	---	---	---	---	---	9.1	7.2	8.0	11.6	7.4	9.2
16	---	---	---	---	---	---	9.7	7.5	8.3	11.9	7.3	9.4
17	---	---	---	---	---	---	10.3	7.6	8.7	12.1	7.3	9.4
18	---	---	---	---	---	---	11.6	7.6	9.4	12.0	7.0	9.3
19	8.6	7.8	8.2	---	---	---	11.6	7.7	9.5	11.3	6.9	8.7
20	9.1	7.5	8.3	---	---	---	11.9	7.7	9.6	12.5	7.1	9.4
21	9.5	7.8	8.6	9.5	6.7	7.9	12.1	7.7	9.8	11.1	7.6	9.1
22	9.7	8.2	8.9	9.3	6.6	7.8	12.5	7.7	9.8	11.6	7.1	8.9
23	10.5	8.5	9.5	---	---	---	13.0	7.6	10.1	12.4	7.1	9.5
24	9.8	8.5	9.0	8.4	6.8	7.5	13.3	7.4	10.1	12.1	8.0	9.8
25	10.3	8.2	9.2	9.9	7.3	8.4	13.3	7.2	9.9	10.0	8.2	9.1
26	10.1	8.2	9.2	8.9	7.3	7.9	13.3	6.9	9.6	10.2	8.1	9.0
27	10.0	7.9	8.9	9.8	7.1	8.3	12.7	6.7	9.5	10.2	8.5	9.2
28	10.0	7.8	8.9	9.9	7.2	8.4	10.9	6.5	8.5	11.1	8.6	9.6
29	10.5	7.5	9.0	10.0	7.4	8.5	10.8	6.0	8.3	12.3	8.6	10.2
30	10.3	7.4	8.8	10.0	7.3	8.4	11.4	6.7	8.9	12.2	9.0	10.4
31	---	---	---	9.3	7.1	7.7	11.6	6.8	9.0	---	---	---
MONTH	---	---	---	---	---	---	13.3	6.0	9.0	12.5	6.5	9.1

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ

LOCATION.--Lat 40°16'11", long 74°40'20", Mercer County, Hydrologic Unit 02040105, on left bank 250 ft upstream from bridge on Quaker Bridge Road, 1.9 south of Clarksville, 2.0 mi upstream from Shipetaukin Creek, and 7.6 mi upstream of mouth.

DRAINAGE AREA.--34.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements water years 1963-67. October 1972 to September 1981, March to September 1992.

GAGE.--Water-stage recorder. Datum of gage is 49.28 ft above sea level.

REMARKS.--Records good except from June 22 to Sept. 30, which are fair. Regulation from flood-control dams and ponds upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 28, 1971, reached a stage of 10.9 ft, discharge, 1,500 ft^3/s.

PEAK DISCHARGES FOR PERIOD MARCH TO SEPTEMBER.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 20	2115	*196	*5.64	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	38	18	22	31	e23	10
2	---	---	---	---	---	---	35	17	27	27	e20	9.2
3	---	---	---	---	---	---	32	16	31	23	e19	8.5
4	---	---	---	---	---	---	31	16	30	24	14	8.2
5	---	---	---	---	---	---	29	15	36	22	15	7.8
6	---	---	---	---	---	†22	26	14	105	21	e13	7.1
7	---	---	---	---	---	---	25	13	120	19	e12	6.9
8	---	---	---	---	---	---	23	14	106	17	e11	6.7
9	---	---	---	---	---	---	22	16	81	e17	11	6.5
10	---	---	---	---	---	---	21	17	62	e18	11	7.7
11	---	---	---	---	---	---	22	18	49	e21	15	11
12	---	---	---	---	---	---	21	19	40	e18	24	9.2
13	---	---	---	---	---	---	20	19	33	e17	20	7.6
14	---	---	---	---	---	---	19	19	29	e17	19	6.6
15	---	---	---	---	---	---	18	18	25	e21	17	5.8
16	---	---	---	---	---	---	18	20	21	e20	18	5.3
17	---	---	---	---	---	---	20	21	18	e22	19	4.8
18	---	---	---	---	---	e21	27	21	16	e20	23	4.4
19	---	---	---	---	---	27	30	21	35	e17	26	4.7
20	---	---	---	---	---	34	30	19	174	e17	28	4.2
21	---	---	---	---	---	40	29	18	195	e16	28	3.6
22	---	---	---	---	---	41	29	16	184	e15	27	3.6
23	---	---	---	---	---	41	28	15	165	e17	23	5.4
24	---	---	---	---	---	38	26	14	152	e18	19	4.5
25	---	---	---	---	---	36	25	13	116	e19	16	4.2
26	---	---	---	---	---	36	23	12	82	e17	15	12
27	---	---	---	---	---	51	22	12	60	e17	15	15
28	---	---	---	---	---	55	21	11	48	e16	14	18
29	---	---	---	†27	---	52	20	10	41	e15	13	18
30	---	---	---	---	---	47	19	9.5	34	e14	13	16
31	---	---	---	---	---	44	---	15	---	e20	12	---
TOTAL	---	---	---	---	---	---	749	496.5	2137	593	553	242.5
MEAN	---	---	---	---	---	---	25.0	16.0	71.2	19.1	17.8	8.08
MAX	---	---	---	---	---	---	38	21	195	31	28	18
MIN	---	---	---	---	---	---	18	9.5	16	14	11	3.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1981, BY WATER YEAR (WY)

MEAN	40.4	47.3	69.7	80.8	68.8	74.1	67.1	52.0	40.8	37.0	29.9	35.5
MAX	87.1	112	124	151	132	114	115	72.2	76.2	142	69.8	96.9
(WY)	1976	1973	1978	1979	1979	1979	1973	1979	1979	1975	1978	1975
MIN	13.7	20.7	20.9	12.9	30.7	33.8	37.8	18.3	15.8	11.0	13.9	11.5
(WY)	1981	1979	1981	1981	1980	1981	1976	1977	1977	1977	1981	1980

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ--Continued

SUMMARY STATISTICS	MARCH - SEPTEMBER 1992		WATER YEARS 1972 - 1981	
ANNUAL MEAN	---		53.5	
HIGHEST ANNUAL MEAN	---		73.4	1979
LOWEST ANNUAL MEAN	---		17.3	1972
HIGHEST DAILY MEAN	195	Jun 21	832	Feb 26 1979
LOWEST DAILY MEAN	3.6	Sep 21	5.7	Sep 12 1980
ANNUAL SEVEN-DAY MINIMUM	4.4		6.4	Sep 9 1980
INSTANTANEOUS PEAK FLOW	196	Jun 20	1050	Jul 21 1975
INSTANTANEOUS PEAK STAGE	5.64	Jun 20	9.36	Jul 21 1975
INSTANTANEOUS LOW FLOW	3.4	Sep 21	5.7	Sep 11 1980
10 PERCENT EXCEEDS	---		104	
50 PERCENT EXCEEDS	---		39	
90 PERCENT EXCEEDS	---		15	

e Estimated.
† Result of discharge measurement.

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ--Continued

LOCATION.--Lat 40°16'11", long 74°40'20", Mercer County, Hydrologic Unit 02040105, on left bank 250 ft upstream from bridge on Quaker Bridge Road, 1.9 south of Clarksville, 2.0 mi upstream from Shipetaukin Creek, and 7.6 mi upstream of mouth.

DRAINAGE AREA.--34.3 mi^2.

PERIOD OF RECORD.--Water years 1963, 1965, 1967, 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
03...	1430	--	120	6.9	16.5	9.2	94	5.6	<20	21
JAN 1992										
23...	1030	--	141	--	2.0	11.9	87	E2.3	<20	<10
APR										
07...	1130	25	154	6.9	9.0	10.0	87	4.1	<20	<10
JUN										
16...	1100	21	133	6.9	24.0	7.0	83	E2.1	20	470
AUG										
10...	1100	11	106	6.4	24.0	4.6	55	E1.7	20	90

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
03...	38	8.1	4.3	6.1	2.8	17	18	14	0.2
JAN 1992									
23...	46	11	4.4	6.2	3.0	12	23	15	0.2
APR									
07...	43	9.3	4.8	9.4	2.3	8.2	26	22	0.2
JUN									
16...	40	8.9	4.4	7.2	2.3	14	18	15	<0.1
AUG									
10...	33	7.6	3.5	5.5	2.8	18	12	11	0.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
03...	3.6	68	0.006	0.005	0.160	0.17	<0.03	0.04	1.0
JAN 1992									
23...	6.5	82	0.006	0.005	1.22	1.29	<0.03	<0.03	0.48
APR									
07...	4.7	88	0.012	0.011	1.01	1.01	0.06	0.06	0.55
JUN									
16...	4.2	70	0.016	0.014	0.41	0.44	0.09	0.07	0.85
AUG									
10...	4.9	59	0.008	0.007	0.18	0.18	0.12	0.13	0.83

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
03...	0.78	1.2	0.95	0.08	0.02	6.7	0.5	9	--
JAN 1992									
23...	0.38	1.7	1.7	0.03	<0.02	3.4	0.6	2	--
APR									
07...	0.35	1.6	1.4	0.03	0.02	3.8	0.4	11	0.74
JUN									
16...	0.50	1.3	0.94	0.05	<0.02	5.0	0.9	9	0.51
AUG									
10...	0.64	1.0	0.82	0.06	<0.02	5.4	1.2	4	0.12

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 16...	1100	13	<1	<10	20	<1	<1	<1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 16...	580	<1	80	<0.10	1	<1	<10

01464000 ASSUNPINK CREEK AT TRENTON, NJ

LOCATION.--Lat 40°13'27", long 74°44'58", Mercer County, Hydrologic Unit 02040105, on left bank 20 ft upstream from bridge on Chambers Street (Lincoln Avenue) in Trenton, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--90.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1923 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since July 10, 1932. Datum of gage is 24.76 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--No estimated daily discharges. Records good. Records include water diverted from outside the basin since February 1954 for municipal supply which returns to Assunpink Creek through Ewing-Lawrence Sewerage Authority Treatment Plant, 2.4 mi above station (records given herein). In addition there is an average inflow of about 2.0 ft^3/s from industrial use of water that originates outside the basin. Some diversion for irrigation in headwater area during summer months. Flow regulated by several flood-control reservoirs upstream of gage since mid-1970's. Several measurements of water temperature were made during the year. National Weather Service gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	2330	*1,470	*7.43	June 19	1945	1,470	7.42

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	36	66	74	66	67	102	98	150	76	113	39
2	49	36	107	72	62	66	95	99	102	69	59	37
3	46	35	554	71	61	63	87	97	81	69	50	35
4	44	38	448	122	59	62	84	90	71	98	70	38
5	42	36	249	115	57	61	82	86	564	64	69	35
6	42	35	182	103	55	60	78	84	747	59	47	32
7	40	35	143	94	55	150	76	82	369	53	41	37
8	37	34	118	85	55	124	73	134	249	49	39	36
9	36	34	110	97	53	94	69	129	165	87	54	33
10	35	34	182	93	51	106	69	93	128	55	42	69
11	50	89	131	81	51	209	79	99	105	49	130	113
12	47	45	112	75	49	128	70	94	93	46	124	45
13	35	42	107	73	49	108	66	87	84	46	72	37
14	35	40	106	120	52	93	64	56	75	58	100	35
15	66	39	94	90	86	77	63	50	69	78	71	33
16	53	38	86	75	147	73	77	153	61	92	85	32
17	166	36	81	68	90	69	127	89	56	52	88	30
18	91	36	76	64	87	68	136	67	53	54	130	30
19	62	37	71	60	88	191	99	59	462	46	89	36
20	52	37	67	59	82	157	90	54	514	45	77	30
21	50	41	66	58	77	147	93	50	367	43	69	29
22	48	217	64	56	71	126	100	48	321	41	61	41
23	45	172	64	100	68	136	94	45	251	92	55	79
24	44	101	63	148	67	121	111	46	220	66	52	39
25	43	77	58	94	67	119	110	54	194	53	48	54
26	42	68	57	84	112	142	106	46	141	46	76	199
27	40	62	56	78	85	288	106	44	111	46	79	106
28	40	56	55	74	79	179	105	40	92	43	59	90
29	39	52	141	72	73	129	104	40	83	40	56	61
30	38	50	105	71	---	113	101	44	78	38	43	49
31	37	---	82	69	---	119	---	297	---	201	42	---
TOTAL	1548	1688	3901	2595	2054	3645	2716	2554	6056	1954	2190	1559
MEAN	49.9	56.3	126	83.7	70.8	118	90.5	82.4	202	63.0	70.6	52.0
MAX	166	217	554	148	147	288	136	297	747	201	130	199
MIN	35	34	55	56	49	60	63	40	53	38	39	29
(†)	12.5	12.3	13.8	12.5	12.3	16.0	14.2	12.3	15.8	11.9	11.5	11.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1992, BY WATER YEAR (WY)

MEAN	77.2	114	142	161	183	203	177	131	97.3	99.3	90.6	89.0
MAX	257	331	386	498	395	426	494	340	267	545	355	327
(WY)	1928	1973	1984	1979	1939	1936	1983	1989	1989	1975	1971	1938
MIN	19.1	27.6	42.1	44.2	52.0	76.7	65.2	40.0	25.9	17.2	17.3	15.8
(WY)	1931	1932	1944	1981	1934	1985	1963	1941	1942	1955	1966	1943

01464000 ASSUNPINK CREEK AT TRENTON, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1924 - 1992	
ANNUAL TOTAL	47114		32460			
ANNUAL MEAN	129		88.7		130	
(†)	14.9		13.0		---	
HIGHEST ANNUAL MEAN					233	1984
LOWEST ANNUAL MEAN					69.2	1931
HIGHEST DAILY MEAN	1270	Jan 12	747	Jun 6	4050	Jul 21 1975
LOWEST DAILY MEAN	29	Sep 18	29	Sep 21	4.0	Jul 21 1929
ANNUAL SEVEN-DAY MINIMUM	32	Sep 12	31	Sep 15	9.6	Aug 25 1944
INSTANTANEOUS PEAK FLOW			1470	Jun 5	5450	Jul 21 1975
INSTANTANEOUS PEAK STAGE			7.43	Jun 5	14.61a	Jul 21 1975
INSTANTANEOUS LOW FLOW			24	Sep 21	1.0	Aug 21 1931
10 PERCENT EXCEEDS	271		141		266	
50 PERCENT EXCEEDS	86		69		86	
90 PERCENT EXCEEDS	37		38		32	

a From high-water mark in gage house.
† Inflow from outside basin, equivalent in cubic feet per second, 2.4 mi upstream of station through plant of Ewing-Lawrence Sewerage Authority.

01464000 ASSUNPINK CREEK AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-75, 1977-80, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
17...	1400	382	192	7.1	12.5	10.0	95	E2.0	>24000	>2400
JAN 1992										
23...	1230	62	523	7.5	5.5	11.2	90	4.3	9200	750
APR										
15...	1430	66	384	8.1	12.5	13.3	124	E1.2	1100	<10
JUN										
11...	1130	110	238	7.3	21.0	7.2	81	E1.5	2400	430
AUG										
10...	1300	46	316	7.6	23.0	8.7	102	E1.6	>24000	940

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
17...	43	11	3.7	13	3.3	22	21	20	0.2
JAN 1992									
23...	110	26	9.9	52	5.2	48	40	84	0.3
APR									
15...	94	21	10	29	4.8	51	44	37	0.3
JUN									
11...	66	16	6.3	17	3.6	35	31	24	0.2
AUG									
10...	79	20	7.0	27	5.1	43	36	38	0.5

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
17...	4.0	101	0.016	0.011	2.71	2.68	0.07	0.08	1.3
JAN 1992									
23...	9.2	280	0.020	0.017	5.60	5.45	0.08	0.08	0.77
APR									
15...	6.1	203	0.018	0.017	4.45	4.45	<0.03	0.04	0.60
JUN									
11...	7.8	136	0.031	0.023	2.03	1.98	0.12	0.11	0.90
AUG									
10...	6.8	188	0.027	0.034	5.00	4.99	<0.03	<0.03	0.61

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
17...	0.59	4.0	3.3	0.61	0.35	4.4	--	90	93
JAN 1992									
23...	0.20	6.4	5.6	0.64	0.52	3.8	1.1	19	3.2
APR									
15...	0.22	5.1	4.7	0.40	0.35	3.6	--	5	0.89
JUN									
11...	0.67	2.9	2.7	0.28	0.20	5.2	0.9	11	3.3
AUG									
10...	0.75	5.6	5.7	0.74	0.67	4.1	0.7	4	0.50

01464000 ASSUNPINK CREEK AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 11...	1130	37	1	<10	90	<1	<1	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 11...	1100	4	150	<0.10	6	<1	20

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ

LOCATION.--Lat 40°08'15", long 74°36'02", Mercer County, Hydrologic Unit 02040201, on right bank upstream from highway bridge in Extonville, 0.5 mi upstream from Pleasant Run, and 0.7 mi downstream from Mercer-Monmouth County line.

DRAINAGE AREA.--81.5 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1940 to October 1951, October 1952 to current year.

REVISED RECORDS.--WDR NJ-79-2: 1971(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 24.94 ft above sea level.

REMARKS.--Records good except for estimated daily discharges and those above 300 ft^3/s, which are fair. Flow regulated occasionally by lakes above station. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	unknown	*982	*7.77	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	45	60	85	74	81	118	56	256	42	349	43
2	50	45	84	78	69	77	112	55	125	42	160	42
3	47	45	138	79	65	75	106	54	93	40	107	41
4	45	45	e170	98	63	73	97	49	71	87	77	44
5	44	44	e185	145	62	71	95	47	e144	85	59	44
6	45	44	157	121	60	70	91	47	e770	61	47	44
7	48	44	120	102	59	81	85	45	e576	51	40	45
8	45	44	106	90	60	113	80	56	219	44	35	51
9	43	42	97	84	65	99	75	99	134	64	42	46
10	44	42	169	86	59	90	73	95	105	65	46	49
11	42	49	169	82	56	130	73	108	80	49	67	86
12	44	87	119	76	57	132	70	84	69	43	289	78
13	43	75	108	74	54	105	68	72	46	40	109	59
14	41	67	108	81	57	91	65	70	50	39	94	52
15	41	61	103	84	64	84	62	69	47	40	96	48
16	50	58	92	75	134	77	62	78	43	41	136	45
17	64	55	82	69	137	74	88	96	40	41	331	44
18	e160	52	79	65	110	74	108	73	38	38	461	41
19	112	51	72	70	116	129	100	62	131	37	548	41
20	81	51	74	59	106	216	99	55	685	34	232	42
21	68	51	67	59	93	147	90	48	268	32	132	39
22	62	52	70	57	86	119	84	44	117	30	99	40
23	56	62	68	65	83	117	84	43	88	53	83	59
24	53	68	68	139	80	117	77	45	79	155	71	53
25	52	73	66	121	78	110	73	43	77	81	66	43
26	52	67	62	92	116	104	67	42	68	59	62	212
27	52	61	61	87	141	235	64	43	59	52	59	152
28	49	59	61	78	107	185	62	42	52	47	56	126
29	46	57	76	75	94	130	60	39	47	40	54	106
30	45	56	132	73	---	114	57	37	43	35	49	85
31	45	---	102	73	---	118	---	95	---	81	46	---
TOTAL	1725	1652	3125	2622	2405	3438	2445	1891	4620	1648	4102	1900
MEAN	55.6	55.1	101	84.6	82.9	111	81.5	61.0	154	53.2	132	63.3
MAX	160	87	185	145	141	235	118	108	770	155	548	212
MIN	41	42	60	57	54	70	57	37	38	30	35	39
CFSM	.68	.68	1.24	1.04	1.02	1.36	1.00	.75	1.89	.65	1.62	.78
IN.	.79	.75	1.43	1.20	1.10	1.57	1.12	.86	2.11	.75	1.87	.87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992, BY WATER YEAR (WY)

MEAN	89.4	129	157	169	178	194	173	133	98.8	103	95.2	89.4
MAX	207	406	356	452	416	369	388	319	251	390	299	284
(WY)	1972	1973	1973	1978	1979	1958	1983	1984	1968	1989	1971	1971
MIN	32.9	36.7	46.2	62.1	82.9	86.1	68.3	60.8	39.8	25.8	25.4	31.7
(WY)	1966	1966	1966	1981	1992	1985	1985	1955	1965	1955	1966	1941

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	37884		31573			
ANNUAL MEAN	104		86.3		134	
HIGHEST ANNUAL MEAN					225	1978
LOWEST ANNUAL MEAN					76.9	1966
HIGHEST DAILY MEAN	1050	Jan 13	770	Jun 6	3930	Aug 28 1971
LOWEST DAILY MEAN	29	Jul 12	30	Jul 22	16	Aug 30 1966
ANNUAL SEVEN-DAY MINIMUM	32	Sep 8	36	Jul 16	17	Aug 28 1966
INSTANTANEOUS PEAK FLOW			982	Jun 6	4860	Sep 1 1978
INSTANTANEOUS PEAK STAGE			7.77b	Jun 6	14.18	Sep 1 1978
INSTANTANEOUS LOW FLOW			30	Jul 22	13.1a	Feb 14 1942
ANNUAL RUNOFF (CFSM)	1.27		1.06		1.64	
ANNUAL RUNOFF (INCHES)	17.29		14.41		22.30	
10 PERCENT EXCEEDS	190		132		250	
50 PERCENT EXCEEDS	76		68		93	
90 PERCENT EXCEEDS	37		43		42	

a Result of freezeup.
b From crest-stage gage.
e Estimated.

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to June 1970.
SUSPENDED-SEDIMENT DISCHARGE: February 1965 to June 1970.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
01...	1245	55	158	7.0	11.5	8.8	81	E1.5	330	140
JAN 1992										
27...	1100	75	168	7.0	4.5	13.0	101	<1.0	50	40
APR										
02...	1330	149	162	7.1	9.5	10.3	92	2.6	50	<10
JUN										
18...	1330	37	183	7.1	21.0	7.8	88	E1.6	330	290
AUG										
12...	1400	342	165	6.7	22.0	5.5	63	3.8	9200	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
01...	42	13	2.2	7.0	3.2	20	26	16	0.1
JAN 1992									
27...	42	13	2.2	8.6	2.3	19	23	17	0.2
APR									
02...	48	15	2.5	7.6	2.1	18	26	16	0.3
JUN									
18...	53	13	4.9	11	3.8	26	23	18	0.2
AUG									
12...	49	16	2.1	7.8	3.5	19	20	14	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
01...	8.4	91	0.023	0.020	0.71	0.71	0.09	0.15	0.80
JAN 1992									
27...	7.9	89	0.013	0.009	0.78	0.71	0.27	0.22	0.64
APR									
02...	7.8	92	0.016	0.015	0.80	0.80	0.09	0.07	0.39
JUN									
18...	7.9	103	0.040	0.040	1.32	1.35	0.12	0.07	0.51
AUG									
12...	6.2	85	0.072	0.065	0.70	0.81	0.25	0.35	1.3

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
01...	0.72	1.5	1.4	0.14	0.04	5.2	0.8	8	1.2
JAN 1992									
27...	0.56	1.4	1.3	0.10	0.19	3.5	0.8	3	0.61
APR									
02...	0.35	1.2	1.2	0.06	<0.02	3.2	0.4	6	2.4
JUN									
18...	0.46	1.8	1.8	0.15	0.06	4.9	0.5	9	0.90
AUG									
12...	0.70	2.0	1.5	0.47	0.05	5.4	3.0	84	78

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 18...	1330	19	<1	<10	30	<1	<1	<1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 18...	950	<1	150	<0.10	3	<1	<10

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01464515 DOCTORS CREEK AT ALLENTOWN, NJ

LOCATION.--Lat 40°10'37", long 74°35'57", 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 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection and Energy. Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
03...	1100	6.4	168	7.1	15.5	7.7	78	E2.3	2400	>2400
JAN 1992										
27...	1400	42	174	7.2	4.5	12.7	98	<1.2	50	30
APR										
02...	1045	25	186	7.2	9.5	11.5	102	2.6	40	10
JUN										
18...	1045	4.6	181	7.0	22.0	6.8	78	E2.1	1300	450
AUG										
12...	1100	57	141	8.4	23.0	7.6	89	4.0	9200	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
03...	44	11	4.1	7.9	4.3	23	18	18	0.3
JAN 1992									
27...	32	8.0	3.0	6.1	2.2	17	16	14	0.2
APR									
02...	46	11	4.4	9.7	2.5	14	27	23	0.3
JUN									
18...	59	19	2.8	9.7	3.1	28	23	17	0.2
AUG									
12...	51	14	3.9	6.3	4.0	24	17	14	0.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
03...	7.8	90	0.031	0.025	1.08	0.91	0.39	0.25	1.2
JAN 1992									
27...	6.2	71	0.029	0.012	1.39	1.13	0.29	0.28	0.75
APR									
02...	5.9	97	0.019	0.018	1.12	1.13	0.09	0.08	0.34
JUN									
18...	11	110	0.068	0.065	1.52	1.52	0.39	0.33	1.1
AUG									
12...	6.3	83	0.044	0.034	0.54	0.54	0.22	0.22	1.5

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
03...	0.77	2.2	1.7	0.20	0.10	4.3	0.2	4	0.07
JAN 1992									
27...	0.53	2.1	1.7	0.04	0.03	2.7	0.3	2	0.23
APR									
02...	0.23	1.5	1.4	0.04	<0.02	2.0	0.5	5	0.34
JUN									
18...	0.71	2.6	2.2	0.07	<0.02	4.1	0.5	6	0.08
AUG									
12...	0.88	2.1	1.4	0.61	0.14	4.7	3.7	107	16

01464515 DOCTORS CREEK AT ALLENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 18...	1045	14	<1	<10	40	<1	<1	<1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 18...	2400	<1	70	<0.10	2	<1	<10

01464598 DELAWARE RIVER AT BURLINGTON, NJ

LOCATION.--Lat 40°04'42", long 74°52'28", Burlington County, Hydrologic Unit 02040201, on left bank at the intake canal of the Public Service Electric and Gas Company, 0.3 mi downstream from Burlington-Bristol Bridge, 1.4 mi downstream from Assiscunk Creek, and at river mile 117.54.

DRAINAGE AREA.--7,160 mi^2.

PERIOD OF RECORD.--July 1964 to current year. March 1921 to July 1926, January 1931 to November 1939, August 1951 to June 1954, July 1957 to June 1964, in files of Philadelphia District Corps of Engineers.

REVISED RECORDS.--WDR NJ-76-1: 1973(m).

GAGE.--Water-stage recorder. Datum of gage is 12.90 ft below sea level. Prior to May 20, 1971, water-stage recorder at site 0.7 mi upstream at same datum. Gage-height record converted to elevation above or below (-) sea level for publication.

REMARKS.--No gage-height or doubtful record: Oct. 13-14, Oct. 23-25, Nov. 28 to Dec. 12, Feb. 9, Mar. 27 and Apr. 22-29. Summaries for months with short periods of no gage-height record have been estimated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 8.74 ft, Oct. 25, 1980; minimum recorded, -6.86 ft, Nov. 21, 1989.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 10.8 ft, Aug. 20, 1955, from high-water mark at site 1.4 mi upstream; minimum, -9.1 ft, Dec. 31, 1962, at present site.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 7.42 ft, June 6; minimum recorded, -4.96 ft, Jan. 16.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	7.34	6.77	e6.15	6.81	5.91	6.37	6.01	6.39	7.42	6.67	6.82	6.87
high tide	Date	31	24	3	4	8	11	30	6	6	3	29	26
Minimum	Elevation	-2.95	-3.15	-4.23	-4.96	-4.22	-3.22	-2.65	-2.82	-2.73	-2.70	-3.11	-3.33
low tide	Date	7	26	19	16	29	2	5	19	22	28	29	23
Mean high tide		5.05	4.88	---	4.54	4.55	4.69	5.16	5.24	5.82	5.59	5.44	5.30
Mean water level		1.60	1.40	---	1.06	1.11	1.35	1.86	1.66	2.12	1.90	1.66	1.66
Mean low tide		-1.94	-1.94	---	-2.29	-2.19	-1.85	-1.37	-2.18	-1.61	-1.81	-2.22	-2.30

e Estimated.

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ

LOCATION.--Lat 39°56'22", long 74°45'50", Burlington County, Hydrologic Unit 02040202, at bridge on Lumberton-Vincentown Road at Vincentown, 2.9 mi southeast of Lumberton, and 3.1 mi upstream from Southwest Branch.

DRAINAGE AREA.--64.5 mi^2.

PERIOD OF RECORD.--Water years 1925, 1959-62, 1975 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
14...	1030	70	80	6.0	7.0	10.7	87	E1.8	79	46
JAN 1992										
21...	0900	15	87	5.8	0.5	13.3	92	E1.7	46	30
MAR										
16...	1100	60	82	6.4	1.0	14.0	98	0.5	8	<10
MAY										
20...	0800	44	72	6.3	16.5	7.9	80	<1.0	350	110
JUL										
16...	0830	32	67	6.3	26.0	5.3	66	E1.2	330	330

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
14...	20	5.2	1.6	5.0	2.0	4.8	14	9.7	0.2
JAN 1992									
21...	22	5.9	1.7	5.3	1.7	6.8	19	10	0.2
MAR									
16...	22	6.1	1.7	4.8	1.5	5.3	15	8.1	0.2
MAY									
20...	16	4.5	1.2	5.0	1.5	4.3	10	8.2	<0.1
JUL									
16...	16	4.4	1.2	4.3	1.5	6.7	10	6.6	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
14...	7.4	48	0.006	0.004	0.45	--	0.14	0.15	0.49
JAN 1992									
21...	6.3	57	0.014	0.012	0.65	0.64	0.05	0.05	0.54
MAR									
16...	4.2	48	0.010	0.010	0.58	0.62	0.08	0.07	0.48
MAY									
20...	3.5	38	0.012	0.010	0.39	0.36	0.07	0.05	0.74
JUL									
16...	4.4	39	0.016	0.009	0.55	0.52	0.17	0.21	1.0

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
14...	0.44	0.94	--	0.06	0.05	9.6	0.6	4	0.76
JAN 1992									
21...	0.43	1.2	1.1	0.11	0.05	7.1	0.7	5	0.20
MAR									
16...	0.41	1.1	1.0	0.08	0.14	6.9	0.3	4	0.65
MAY									
20...	0.55	1.1	0.91	0.17	0.09	10	1.0	13	1.5
JUL									
16...	0.71	1.6	1.2	0.25	0.18	12	2.8	13	1.1

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
NOV 1991 14...	1030	--	<1	5	6.5	530	850	<0.1	7.3	--	3
MAY 1992 20...	0800	39	--	--	--	--	--	--	--	<1	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV 1991 14...	--	--	--	<1	--	7	<5	--	10	--
MAY 1992 20...	<10	20	<1	--	2	--	--	2	--	1800

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 1991 14...	4200	--	20	--	<10	--	0.04	--	<10	--
MAY 1992 20...	--	2	--	50	--	<0.10	--	3	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 1991 14...	<1	--	40	24	<1.0	<0.1	4.0	6.0	3.1	0.5
MAY 1992 20...	--	20	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	ORGANIC HALOGEN TOT REC FROM BOTTOM MATERIAL (UG/G) AS CL
NOV 1991 14...	0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<10	<0.1	<1.00	<10	1.73
MAY 1992 20...	--	--	--	--	--	--	--	--	--	--	--

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ
(Hydrologic bench-mark station)

LOCATION.--Lat 39°53'05", long 74°30'20", Burlington County, Hydrologic Unit 02040202, on right bank in Lebanon State Forest, 25 ft upstream from Butterworth Road Bridge, 3.4 mi upstream from confluence with Cooper Branch, and 7.0 mi southeast of Browns Mills.

DRAINAGE AREA.--2.35 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1962, published as "McDonald Branch in Lebanon State Forest".

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 117.73 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records fair. Gage-height record is collected above concrete control and discharge record, which includes leakage around control, is measured at site 785 ft downstream. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7.0 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 31	2130	11	1.85	Aug. 18	0915	*15	*1.97
Aug. 1	1115	12	1.89				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.0	1.0	1.3	1.2	1.4	1.6	1.6	1.4	1.3	9.3	2.1
2	1.2	1.0	1.1	1.2	1.1	1.4	1.7	1.6	1.3	1.3	5.3	2.0
3	1.1	1.0	1.4	1.2	1.1	1.4	1.6	1.6	1.2	1.3	3.4	2.4
4	1.1	1.0	1.6	1.3	1.1	1.4	1.6	1.6	1.2	1.8	2.7	2.5
5	1.2	1.0	1.4	1.4	1.1	1.4	1.7	1.5	1.6	1.6	2.3	2.3
6	1.2	1.0	1.3	1.3	1.1	1.4	1.6	1.5	2.2	1.4	2.1	2.1
7	1.1	1.0	1.2	1.3	1.1	1.5	1.6	1.5	2.5	1.3	2.0	2.1
8	1.1	1.0	1.2	1.3	1.1	1.4	1.6	1.5	2.1	1.3	1.9	1.9
9	1.1	1.0	1.2	1.2	1.1	1.3	1.6	1.4	1.8	1.3	1.9	1.9
10	1.1	1.1	1.4	1.2	1.1	1.3	1.6	1.4	1.6	1.3	1.9	1.9
11	1.1	1.2	1.3	1.2	1.1	1.4	1.6	1.3	1.5	1.4	1.9	e2.2
12	1.1	1.1	1.3	1.2	1.1	1.3	1.6	1.3	1.4	1.2	2.1	e2.2
13	1.1	1.1	1.3	1.2	1.1	1.3	1.6	1.2	1.4	1.1	1.9	e2.1
14	1.1	1.1	1.3	1.2	1.1	1.2	1.6	1.2	1.4	1.1	2.1	e2.0
15	1.1	1.1	1.4	1.2	1.1	1.2	1.6	1.2	1.3	1.1	2.3	e2.0
16	1.1	1.1	1.3	1.2	1.3	1.2	1.6	1.3	1.3	1.1	2.8	e2.0
17	1.3	1.0	1.3	1.2	1.3	1.2	1.6	1.3	1.3	1.0	4.9	e1.9
18	1.3	1.0	1.3	1.2	1.2	1.2	1.6	1.2	1.3	1.0	12	e1.9
19	1.2	1.0	1.3	1.2	1.2	1.5	1.6	1.2	1.8	1.0	6.6	e1.8
20	1.2	1.0	1.2	1.2	1.2	1.4	1.6	1.2	1.8	1.6	4.1	e1.9
21	1.1	1.0	1.2	1.1	1.2	1.4	1.6	1.2	1.6	1.8	3.3	e1.9
22	1.1	1.1	1.2	1.1	1.2	1.3	1.6	1.2	1.4	2.0	2.8	e1.9
23	1.1	1.2	1.2	1.2	1.2	1.4	1.6	1.2	1.4	2.1	2.6	e2.0
24	1.1	1.1	1.2	1.3	1.2	1.4	1.6	1.2	1.4	2.2	2.5	e1.8
25	1.1	1.0	1.2	1.2	1.2	1.4	1.6	1.2	1.4	2.6	2.4	e1.9
26	1.1	1.0	1.2	1.2	1.3	1.5	1.6	1.2	1.4	2.1	2.3	e3.0
27	1.1	1.0	1.2	1.2	1.3	1.7	1.6	1.2	1.3	1.8	2.5	e3.0
28	1.1	1.0	1.2	1.2	1.4	1.6	1.6	1.2	1.3	1.7	2.6	e3.2
29	1.1	1.0	1.3	1.2	1.4	1.5	1.6	1.2	1.3	1.5	2.4	2.2
30	1.0	1.0	1.4	1.2	---	1.6	1.6	1.1	1.3	1.4	2.3	1.9
31	1.0	---	1.3	1.2	---	1.7	---	1.3	---	4.0	2.2	---
TOTAL	34.9	31.2	39.4	37.8	34.2	43.3	48.2	40.8	45.2	48.7	101.4	64.0
MEAN	1.13	1.04	1.27	1.22	1.18	1.40	1.61	1.32	1.51	1.57	3.27	2.13
MAX	1.3	1.2	1.6	1.4	1.4	1.7	1.7	1.6	2.5	4.0	12	3.2
MIN	1.0	1.0	1.0	1.1	1.1	1.2	1.6	1.1	1.2	1.0	1.9	1.8
CFSM	.48	.44	.54	.52	.50	.59	.68	.56	.64	.67	1.39	.91
IN.	.55	.49	.62	.60	.54	.69	.76	.65	.72	.77	1.61	1.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

MEAN	1.62	1.79	2.08	2.34	2.45	2.86	2.93	2.66	2.24	1.93	1.91	1.72
MAX	4.45	4.82	5.75	4.78	5.69	5.67	5.74	5.65	5.35	4.15	5.65	4.31
(WY)	1959	1973	1973	1973	1973	1979	1984	1958	1979	1958	1958	1958
MIN	.87	.95	1.00	.98	1.13	1.25	1.24	1.24	1.19	1.00	.91	.89
(WY)	1989	1986	1966	1981	1989	1966	1985	1985	1985	1977	1988	1988

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1954 - 1992	
ANNUAL TOTAL	710.1		569.1			
ANNUAL MEAN	1.95		1.55		2.21	
HIGHEST ANNUAL MEAN					3.85	1973
LOWEST ANNUAL MEAN					1.19	1966
HIGHEST DAILY MEAN	10	Jan 12	12	Aug 18	20	Feb 28 1958
LOWEST DAILY MEAN	1.0	Oct 30	1.0	Oct 30	.71	Sep 21 1985
ANNUAL SEVEN-DAY MINIMUM	1.0	Oct 30	1.0	Oct 30	.73	Sep 17 1985
INSTANTANEOUS PEAK FLOW			15	Aug 18	35	Aug 25 1958
INSTANTANEOUS PEAK STAGE			1.97	Aug 18	2.33	Aug 25 1958
INSTANTANEOUS LOW FLOW			1.0	Jul 18	---	
ANNUAL RUNOFF (CFSM)	.83		.66		.94	
ANNUAL RUNOFF (INCHES)	11.24		9.01		12.77	
10 PERCENT EXCEEDS	3.0		2.1		3.7	
50 PERCENT EXCEEDS	1.5		1.3		1.9	
90 PERCENT EXCEEDS	1.1		1.1		1.1	

e Estimated.

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to September 1992 (discontinued).
PH: October 1984 to September 1992 (discontinued).
WATER TEMPERATURE: October 1960 to September 1992 (discontinued).
DISSOLVED OXYGEN: October 1984 to September 1992 (discontinued).

INSTRUMENTATION.--Temperature recorder since October 1960, water-quality monitor since October 1968.

REMARKS.--Water-quality samples were collected at the weir. Interruptions in the daily record were due to malfunctions of the instrument. Monitor probes are located about 1.5 ft below water surface about 10 ft upstream of v-notch weir. Chemical analyses are from samples collected as water flows over the weir.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 182 microsiemens, June 16, 1969; minimum, 19 microsiemens, Aug. 25, 1979, Nov. 14, 1985.
pH: Maximum, 5.4, Nov. 1, 1985; minimum, 3.6, on several days in water years 1987 and 1988.
WATER TEMPERATURE: Maximum, 22.0 °C, Aug. 1, 1970; minimum, 0.0 °C, on many days during winter months.
DISSOLVED OXYGEN: Maximum, 11.0 mg/l, Jan. 12, 1991; minimum, 1.0 mg/l, Oct. 12, 1990, Sep. 18, 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 117 microsiemens, Jun. 8; minimum, 30 microsiemens, Oct. 7-9,11,17.
pH: Maximum, 4.7, Oct. 7; minimum recorded, 3.9, on several days during June and August, but may have been lower during instrument malfunction July 7-Aug. 6.
WATER TEMPERATURE: Maximum recorded, 19.5 °C, Aug. 19, but may have been higher during instrument malfunction July 7-Aug. 6; minimum, 2.0 °C, Jan. 27.
DISSOLVED OXYGEN: Maximum 6.9 mg/l, Mar. 24,26; minimum recorded, 1.6 mg/l, Nov. 2,3, but may have been lower during instrument malfunction July 7-Aug. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 1991												
29...	0915	1.1	34	4.4	11.0	2.1	2.1	19	0	40	2	0.31
NOV												
26...	0945	1.0	39	4.3	8.0	0.50	2.8	24	<1	22	2	0.34
DEC												
30...	1130	1.4	50	4.2	5.0	0.50	6.3	49	K1	22	3	0.49
JAN 1992												
28...	1200	1.2	46	4.2	3.5	0.60	6.3	47	<1	<1	3	0.47
FEB												
25...	0930	1.2	47	4.3	6.0	0.50	5.1	41	<1	25	4	0.55
MAR												
30...	1600	1.6	68	4.2	6.0	0.70	--	59	0	38	5	0.79
APR												
28...	1230	1.6	39	4.3	11.0	0.50	--	43	<1	80	3	0.50
MAY												
26...	1315	1.2	36	4.4	12.0	0.60	3.3	31	K1	22	2	0.33
JUL												
07...	1115	1.4	45	4.2	15.5	0.40	3.2	32	K3	K8	3	0.45
28...	0830	1.7	55	4.1	17.5	1.0	2.5	26	8	6	3	0.50
AUG												
25...	1030	2.4	53	4.1	16.0	1.0	2.7	27	K1	0	3	0.52
SEP												
29...	0820	2.3	53	4.1	15.0	0.30	2.9	29	9	30	2	0.35

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
OCT 1991												
29...	0.31	1.7	0.20	<1	2.2	3.7	<0.1	4.3	<0.01	0.02	<0.05	0.06
NOV												
26...	0.34	1.7	0.20	<1	3.3	3.2	0.2	4.5	<0.01	<0.01	<0.05	<0.05
DEC												
30...	0.50	2.0	0.30	<1	6.3	3.5	0.1	4.9	<0.01	<0.01	<0.05	<0.05
JAN 1992												
28...	0.56	1.9	0.30	<1	4.5	3.2	0.2	4.4	<0.01	<0.01	<0.05	<0.05
FEB												
25...	0.55	2.0	0.20	<1	4.5	2.8	<0.1	4.5	<0.01	<0.01	<0.05	<0.05
MAR												
30...	0.73	2.3	0.40	<1	8.5	3.4	0.2	4.3	<0.01	<0.01	<0.05	<0.05
APR												
28...	0.45	1.8	0.30	<1	4.4	3.7	<0.1	4.1	<0.01	<0.01	<0.05	<0.05
MAY												
26...	0.35	1.9	0.20	<1	3.2	3.5	<0.1	4.0	<0.01	<0.01	<0.05	<0.05
JUL												
07...	0.41	2.2	0.20	<1	4.1	3.5	<0.1	4.0	<0.01	<0.01	<0.05	<0.05
28...	0.42	1.8	0.10	<1	4.5	3.3	<0.1	3.6	<0.01	<0.01	<0.05	<0.05
AUG												
25...	0.30	1.6	<0.10	<1	2.6	2.9	<0.1	3.3	<0.01	<0.01	<0.05	<0.05
SEP												
29...	0.29	1.6	<0.10	<1	2.8	3.8	<0.1	3.6	<0.01	<0.01	<0.05	<0.05

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1991											
29...	0.04	0.02	<0.2	<0.01	<0.01	0.01	0.01	2.7	2	0.01	63
NOV											
26...	0.02	<0.01	<0.2	<0.01	<0.01	0.01	<0.01	2.1	1	0.00	75
DEC											
30...	<0.01	<0.01	<0.2	<0.01	<0.01	<0.01	<0.01	3.3	<1	0.00	100
JAN 1992											
28...	<0.01	<0.01	<0.2	<0.01	<0.01	<0.01	<0.01	2.1	1	0.00	67
FEB											
25...	0.01	<0.01	<0.2	<0.01	<0.01	<0.01	<0.01	2.3	<1	0.00	100
MAR											
30...	0.03	0.01	<0.2	<0.01	0.02	<0.01	<0.01	3.8	1	0.00	80
APR											
28...	0.02	0.03	<0.2	<0.01	<0.01	<0.01	<0.01	2.6	1	0.00	100
MAY											
26...	0.01	<0.01	<0.2	0.03	<0.01	<0.01	<0.01	2.4	1	0.00	100
JUL											
07...	0.03	0.03	<0.2	<0.01	<0.01	<0.01	<0.01	4.3	1	0.00	60
28...	0.02	0.02	<0.2	<0.01	<0.01	<0.01	<0.01	10	3	0.01	58
AUG											
25...	0.04	0.05	<0.2	<0.01	<0.01	0.01	<0.01	16	4	0.03	62
SEP											
29...	0.03	<0.01	0.2	0.01	<0.01	<0.01	0.02	12	--	--	--

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
OCT 1991											
29...	0915	50	8	<3	220	<4	9	<10	<1	<1	<1.0
NOV											
26...	0945	50	--	--	120	--	--	--	--	--	--
DEC											
30...	1130	80	--	--	110	--	--	--	--	--	--
JAN 1992											
28...	1200	60	10	<3	74	<4	13	10	<1	<1	<1.0
FEB											
25...	0930	60	--	--	71	--	--	--	--	--	--
MAR											
30...	1600	140	--	--	94	--	--	--	--	--	--
APR											
28...	1230	70	10	<3	100	<4	13	<10	<1	<1	<1.0
MAY											
26...	1315	60	--	--	130	--	--	--	--	--	--
JUL											
07...	1115	110	--	--	230	--	--	--	--	--	--
28...	0830	210	13	<3	530	<4	14	<10	<1	<1	<1.0
AUG											
25...	1030	20	--	--	690	--	--	--	--	--	--

DATE	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)
OCT 1991										
29...	4	<6	--	--	--	--	--	--	--	--
NOV										
26...	--	--	--	--	--	--	--	--	--	--
DEC										
30...	--	--	0.8	<0.6	1.0	0.9	<0.6	<0.6	0.20	0.01
JAN 1992										
28...	5	<6	--	--	--	--	--	--	--	--
FEB										
25...	--	--	--	--	--	--	--	--	--	--
MAR										
30...	--	--	--	--	--	--	--	--	--	--
APR										
28...	6	<6	--	--	--	--	--	--	--	--
MAY										
26...	--	--	--	--	--	--	--	--	--	--
JUL										
07...	--	--	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	0.23	<0.01
28...	7	<6	--	--	--	--	--	--	--	--
AUG										
25...	--	--	--	--	--	--	--	--	--	--

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	36	35	35	35	34	34	40	39	39	51	49	50
2	35	34	35	35	34	34	56	40	41	50	48	49
3	35	32	33	36	34	35	94	54	66	49	48	49
4	33	32	32	35	34	35	97	64	76	65	48	55
5	32	31	31	35	34	35	72	60	65	56	53	54
6	32	31	31	36	34	35	61	55	58	55	53	54
7	33	30	32	36	35	35	56	53	54	54	52	52
8	33	30	32	37	35	36	53	51	52	52	51	51
9	32	30	31	37	36	36	52	50	51	51	50	50
10	32	31	31	38	36	37	86	55	65	50	49	49
11	31	30	31	41	36	39	60	56	58	49	48	49
12	33	31	32	41	40	40	56	54	55	49	48	49
13	33	31	32	40	39	40	54	52	53	48	48	48
14	35	31	33	40	39	40	60	51	53	49	48	48
15	32	31	32	40	39	40	55	53	54	49	48	48
16	33	31	31	40	39	40	55	53	54	48	47	48
17	37	30	33	40	39	40	55	52	54	48	46	47
18	38	37	38	40	39	39	53	51	52	47	46	46
19	38	36	37	40	39	40	52	50	51	47	45	46
20	37	35	36	40	39	40	51	49	50	46	45	45
21	37	34	36	40	39	40	50	49	49	46	44	45
22	36	34	35	42	39	40	50	48	49	45	44	45
23	35	34	34	42	40	41	49	48	48	47	44	45
24	35	34	34	41	39	40	48	47	48	48	46	47
25	35	33	34	40	39	39	48	47	47	47	46	47
26	34	33	33	39	38	39	48	47	47	47	46	46
27	33	33	33	39	38	38	47	46	47	47	46	46
28	33	32	32	39	38	38	47	46	46	47	45	46
29	36	33	34	39	38	39	56	46	50	46	45	46
30	36	34	35	39	38	39	52	50	51	46	45	45
31	36	34	35	---	---	---	52	50	51	46	45	45
MONTH	38	30	33	42	34	38	97	39	53	65	44	48

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	45	45	45	48	47	47	65	62	63	44	42	43
2	45	44	45	47	46	47	63	61	62	43	41	42
3	45	44	45	47	46	47	62	59	61	42	41	42
4	45	44	44	47	45	46	60	57	59	42	40	41
5	45	44	44	46	45	46	59	56	57	40	39	40
6	44	43	44	46	45	45	56	54	55	41	38	39
7	44	43	43	49	45	47	55	53	54	39	38	39
8	44	43	43	49	47	48	55	52	53	41	39	40
9	44	43	43	47	46	47	53	50	52	41	40	41
10	43	42	43	47	46	47	51	50	51	45	40	42
11	43	42	42	52	47	50	52	49	50	44	43	43
12	43	42	42	51	49	50	49	48	48	43	42	43
13	43	42	42	50	49	50	49	47	48	43	42	42
14	42	41	42	50	48	49	48	47	48	42	41	41
15	52	41	43	49	47	48	48	46	47	42	41	41
16	60	49	53	48	47	47	48	46	47	41	40	41
17	49	48	49	48	46	47	48	46	47	41	40	41
18	49	48	49	48	45	47	48	46	47	41	40	40
19	49	48	49	73	46	53	48	46	47	41	39	40
20	49	48	49	54	52	53	48	46	47	40	39	39
21	49	48	49	56	53	55	49	45	47	39	38	39
22	49	48	48	55	54	54	47	46	47	39	38	39
23	48	47	48	56	54	55	47	45	46	39	37	38
24	48	47	47	58	56	57	46	45	45	38	37	38
25	48	46	47	59	57	58	46	44	45	38	37	37
26	50	46	49	81	58	61	45	44	44	37	36	37
27	50	48	49	84	67	79	45	43	44	37	36	37
28	49	48	48	83	64	69	45	43	44	37	36	37
29	49	47	48	67	63	65	43	42	43	37	36	36
30	---	---	---	66	63	64	44	42	43	37	36	36
31	---	---	---	69	63	64	---	---	---	64	36	44
MONTH	60	41	46	84	45	53	65	42	50	64	36	40

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	48	42	44	41	40	40	---	---	---	48	47	48
2	43	41	41	40	39	40	---	---	---	47	46	47
3	41	40	40	40	38	39	---	---	---	51	46	49
4	40	39	40	56	43	52	---	---	---	51	49	50
5	102	39	61	61	51	55	---	---	---	50	48	49
6	106	90	100	54	48	51	---	---	---	49	47	48
7	116	85	104	---	---	---	57	53	55	48	46	47
8	117	99	107	---	---	---	54	52	53	47	45	46
9	105	82	92	---	---	---	54	51	52	46	44	45
10	89	68	76	---	---	---	52	50	51	45	44	44
11	69	61	64	---	---	---	54	48	50	48	46	47
12	61	57	59	---	---	---	54	51	53	47	45	46
13	57	53	55	---	---	---	51	48	50	46	45	45
14	53	50	52	---	---	---	51	48	50	46	44	45
15	50	48	49	---	---	---	55	50	52	45	43	44
16	48	46	47	---	---	---	58	53	56	44	43	43
17	46	45	45	---	---	---	63	58	60	43	42	43
18	45	43	44	---	---	---	67	61	64	43	41	42
19	65	43	52	---	---	---	66	63	65	42	41	41
20	70	64	67	---	---	---	63	59	61	41	40	41
21	71	58	63	---	---	---	61	57	59	41	40	40
22	60	53	56	---	---	---	59	56	57	40	39	40
23	53	49	51	---	---	---	57	53	55	41	40	40
24	49	47	48	---	---	---	55	52	54	41	40	40
25	48	46	47	---	---	---	54	52	53	59	40	44
26	47	45	46	---	---	---	53	51	52	64	59	62
27	45	44	44	---	---	---	55	51	52	62	59	61
28	44	42	43	---	---	---	54	51	52	59	55	57
29	43	41	42	---	---	---	52	50	51	---	---	---
30	42	40	41	---	---	---	50	48	49	---	---	---
31	---	---	---	---	---	---	49	47	48	---	---	---
MONTH	117	39	57	---	---	---	67	47	54	64	39	46

PH (STANDARD UNITS), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.3
2	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.3	4.4	4.3	4.3	4.3
3	4.5	4.5	4.5	4.5	4.4	4.5	4.3	4.0	4.2	4.3	4.3	4.3
4	4.6	4.5	4.6	4.5	4.5	4.5	4.2	4.0	4.1	4.3	4.2	4.3
5	4.6	4.6	4.6	4.5	4.5	4.5	4.3	4.2	4.2	4.3	4.3	4.3
6	4.6	4.6	4.6	4.5	4.5	4.5	4.3	4.2	4.3	4.3	4.3	4.3
7	4.7	4.5	4.6	4.5	4.4	4.5	4.3	4.3	4.3	4.3	4.3	4.3
8	4.6	4.5	4.6	4.5	4.4	4.5	4.4	4.3	4.3	4.3	4.3	4.3
9	4.6	4.5	4.6	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.3	4.4
10	4.6	4.5	4.5	4.5	4.4	4.5	4.3	4.1	4.2	4.4	4.3	4.4
11	4.5	4.5	4.5	4.5	4.4	4.4	4.3	4.3	4.3	4.4	4.3	4.4
12	4.5	4.5	4.5	4.4	4.4	4.4	4.3	4.3	4.3	4.4	4.4	4.4
13	4.6	4.5	4.5	4.4	4.4	4.4	4.4	4.3	4.4	4.4	4.4	4.4
14	4.6	4.5	4.6	4.4	4.4	4.4	4.4	4.3	4.4	4.4	4.4	4.4
15	4.6	4.5	4.5	4.5	4.4	4.4	4.4	4.3	4.4	4.4	4.4	4.4
16	4.5	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.4	4.4	4.4	4.4
17	4.4	4.3	4.4	4.5	4.4	4.5	4.4	4.3	4.4	4.4	4.4	4.4
18	4.3	4.3	4.3	4.5	4.4	4.4	4.3	4.3	4.3	4.4	4.4	4.4
19	4.3	4.3	4.3	4.4	4.4	4.4	4.4	4.3	4.4	4.4	4.4	4.4
20	4.4	4.3	4.3	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.4	4.4
21	4.5	4.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.4	4.5
22	4.4	4.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.5	4.5
23	4.4	4.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.3	4.5
24	4.4	4.4	4.4	4.5	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.3
25	4.4	4.3	4.3	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.3	4.4
26	4.3	4.3	4.3	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4	4.4
27	4.3	4.3	4.3	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4	4.4
28	4.4	4.3	4.3	4.5	4.4	4.5	4.4	4.4	4.4	4.4	4.4	4.4
29	4.5	4.4	4.4	4.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
30	4.5	4.4	4.4	4.4	4.4	4.4	4.4	4.2	4.3	4.4	4.4	4.4
31	4.5	4.4	4.4	---	---	---	4.3	4.3	4.3	4.4	4.4	4.4
MONTH	4.7	4.3	4.4	4.5	4.4	4.4	4.4	4.0	4.3	4.5	4.2	4.4

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.4	4.4	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.5	4.5	4.5
2	4.5	4.4	4.5	4.4	4.3	4.3	4.3	4.3	4.3	4.5	4.5	4.5
3	4.5	4.5	4.5	4.4	4.3	4.4	4.3	4.3	4.3	4.5	4.5	4.5
4	4.5	4.5	4.5	4.4	4.4	4.4	4.3	4.3	4.3	4.5	4.5	4.5
5	4.5	4.5	4.5	4.4	4.3	4.4	4.3	4.3	4.3	4.5	4.3	4.4
6	4.5	4.5	4.5	4.4	4.4	4.4	4.3	4.3	4.3	4.4	4.3	4.3
7	4.5	4.5	4.5	4.4	4.3	4.4	4.3	4.3	4.3	4.4	4.3	4.4
8	4.5	4.5	4.5	4.4	4.3	4.4	4.4	4.3	4.4	4.4	4.3	4.3
9	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.3
10	4.5	4.5	4.5	4.4	4.3	4.4	4.4	4.4	4.4	4.4	4.3	4.3
11	4.5	4.5	4.5	4.4	4.3	4.3	4.4	4.4	4.4	4.3	4.3	4.3
12	4.6	4.5	4.5	4.4	4.3	4.3	4.4	4.4	4.4	4.4	4.3	4.4
13	4.6	4.5	4.6	4.4	4.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4
14	4.6	4.6	4.6	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
15	4.6	4.5	4.6	4.4	4.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4
16	4.5	4.4	4.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
17	4.5	4.5	4.5	4.4	4.4	4.4	4.5	4.4	4.4	4.4	4.4	4.4
18	4.5	4.5	4.5	4.4	4.4	4.4	4.5	4.4	4.5	4.4	4.4	4.4
19	4.5	4.5	4.5	4.4	4.2	4.3	4.5	4.5	4.5	4.4	4.4	4.4
20	4.5	4.5	4.5	4.3	4.3	4.3	4.5	4.4	4.5	4.5	4.4	4.4
21	4.5	4.5	4.5	4.3	4.3	4.3	4.5	4.4	4.5	4.5	4.4	4.5
22	4.5	4.5	4.5	4.3	4.3	4.3	4.5	4.4	4.5	4.4	4.4	4.4
23	4.6	4.5	4.6	4.3	4.3	4.3	4.5	4.4	4.5	4.5	4.4	4.5
24	4.6	4.5	4.6	4.3	4.3	4.3	4.5	4.4	4.5	4.5	4.4	4.5
25	4.6	4.3	4.4	4.3	4.3	4.3	4.5	4.4	4.5	4.5	4.4	4.5
26	4.3	4.3	4.3	4.3	4.2	4.3	4.5	4.5	4.5	4.5	4.4	4.5
27	4.3	4.3	4.3	4.2	4.1	4.1	4.5	4.5	4.5	4.4	4.4	4.4
28	4.3	4.3	4.3	4.3	4.1	4.2	4.5	4.5	4.5	4.5	4.4	4.4
29	4.3	4.3	4.3	4.3	4.2	4.3	4.5	4.5	4.5	4.5	4.4	4.5
30	---	---	---	4.3	4.3	4.3	4.5	4.5	4.5	4.5	4.5	4.5
31	---	---	---	4.3	4.2	4.3	---	---	---	4.5	4.2	4.4
MONTH	4.6	4.3	4.5	4.4	4.1	4.3	4.5	4.3	4.4	4.5	4.2	4.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4.4	4.3	4.4	4.3	4.2	4.3	---	---	---	4.3	4.3	4.3
2	4.4	4.3	4.4	4.3	4.3	4.3	---	---	---	4.3	4.3	4.3
3	4.4	4.3	4.4	4.3	4.3	4.3	---	---	---	4.3	4.2	4.3
4	4.4	4.4	4.4	4.2	4.1	4.1	---	---	---	4.3	4.2	4.3
5	4.4	3.9	4.2	4.2	4.1	4.1	---	---	---	4.3	4.2	4.3
6	4.0	3.9	4.0	4.2	4.2	4.2	---	---	---	4.3	4.3	4.3
7	4.0	3.9	4.0	---	---	---	4.2	4.1	4.1	4.3	4.3	4.3
8	4.0	3.9	4.0	---	---	---	4.2	4.2	4.2	4.3	4.3	4.3
9	4.1	4.0	4.0	---	---	---	4.2	4.2	4.2	4.4	4.3	4.3
10	4.2	4.1	4.1	---	---	---	4.2	4.2	4.2	4.4	4.3	4.4
11	4.2	4.2	4.2	---	---	---	4.3	4.2	4.2	4.3	4.3	4.3
12	4.3	4.2	4.3	---	---	---	4.2	4.2	4.2	4.3	4.3	4.3
13	4.3	4.3	4.3	---	---	---	4.2	4.2	4.2	4.4	4.3	4.4
14	4.3	4.3	4.3	---	---	---	4.3	4.2	4.2	4.4	4.4	4.4
15	4.3	4.3	4.3	---	---	---	4.2	4.2	4.2	4.4	4.4	4.4
16	4.4	4.2	4.3	---	---	---	4.2	4.1	4.1	4.5	4.4	4.4
17	4.3	4.3	4.3	---	---	---	4.1	3.9	4.1	4.5	4.4	4.5
18	4.3	4.3	4.3	---	---	---	4.0	3.9	3.9	4.5	4.4	4.5
19	4.3	4.1	4.2	---	---	---	4.0	3.9	4.0	4.5	4.5	4.5
20	4.1	4.1	4.1	---	---	---	4.1	4.0	4.0	4.5	4.5	4.5
21	4.2	4.1	4.1	---	---	---	4.1	4.1	4.1	4.5	4.5	4.5
22	4.2	4.2	4.2	---	---	---	4.2	4.1	4.1	4.5	4.5	4.5
23	4.3	4.2	4.2	---	---	---	4.2	4.1	4.2	4.5	4.5	4.5
24	4.3	4.3	4.3	---	---	---	4.2	4.2	4.2	4.5	4.5	4.5
25	4.3	4.3	4.3	---	---	---	4.2	4.1	4.2	4.5	4.2	4.4
26	4.3	4.3	4.3	---	---	---	4.1	4.1	4.1	4.3	4.2	4.2
27	4.3	4.3	4.3	---	---	---	4.1	4.1	4.1	4.3	4.2	4.3
28	4.3	4.3	4.3	---	---	---	4.2	4.1	4.2	4.3	4.3	4.3
29	4.3	4.3	4.3	---	---	---	4.2	4.2	4.2	---	---	---
30	4.3	4.2	4.3	---	---	---	4.3	4.2	4.2	---	---	---
31	---	---	---	---	---	---	4.3	4.3	4.3	---	---	---
MONTH	4.4	3.9	4.2	---	---	---	4.3	3.9	4.1	4.5	4.2	4.4

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.5	12.0	13.0	11.0	11.0	11.0	9.5	9.0	9.0	4.0	3.0	3.5
2	14.0	13.0	13.5	11.5	11.0	11.5	9.5	9.0	9.5	4.5	3.5	4.0
3	14.5	13.5	14.0	11.0	10.0	10.5	10.0	9.0	9.5	5.0	4.0	4.5
4	14.5	13.5	14.0	10.0	9.0	9.5	9.5	7.5	8.5	5.5	5.0	5.5
5	15.0	14.0	14.5	9.5	7.5	8.5	7.5	6.5	7.0	6.0	5.5	6.0
6	15.0	14.0	15.0	8.5	7.0	8.0	6.5	6.0	6.5	6.0	5.0	5.5
7	14.0	12.0	13.0	9.0	6.5	7.5	6.5	5.5	6.0	5.5	5.0	5.5
8	13.5	11.0	12.0	8.5	7.0	8.0	7.0	6.0	6.5	5.5	4.5	5.0
9	13.5	11.0	12.0	8.0	7.0	7.5	7.5	7.0	7.5	5.5	4.5	5.0
10	13.5	11.5	12.5	8.0	7.5	8.0	7.5	6.5	7.5	5.5	5.0	5.5
11	13.0	12.5	12.5	8.0	8.0	8.0	7.0	6.5	7.0	5.5	5.0	5.5
12	13.0	11.5	12.5	8.5	7.5	8.0	7.0	6.5	7.0	5.5	4.5	5.0
13	12.5	10.5	11.5	8.0	8.0	8.0	8.0	7.0	7.5	6.0	5.5	5.5
14	12.0	9.5	11.0	8.5	7.5	8.0	9.0	8.0	8.5	7.0	6.0	6.5
15	12.5	11.0	11.5	8.5	7.0	8.0	8.0	6.5	7.5	6.0	5.0	5.5
16	12.5	12.0	12.0	9.0	8.5	8.5	6.5	5.5	6.0	5.0	4.0	4.5
17	12.0	11.5	12.0	8.0	6.5	7.5	5.5	5.0	5.5	4.5	4.0	4.0
18	12.5	12.0	12.0	8.0	6.0	7.0	5.5	4.5	5.0	4.5	3.5	4.0
19	12.5	11.5	12.0	8.5	7.5	8.0	4.5	4.0	4.0	3.5	3.0	3.5
20	12.0	10.5	11.5	9.5	8.0	8.5	4.0	3.5	4.0	3.5	2.5	3.0
21	11.0	9.0	10.5	10.0	9.0	9.5	4.5	4.0	4.0	3.5	3.0	3.0
22	11.5	9.5	10.5	11.5	10.0	10.5	4.5	4.0	4.0	3.5	2.5	3.0
23	11.5	10.5	11.0	11.5	11.0	11.0	4.5	4.0	4.0	4.5	3.5	4.0
24	12.0	11.0	11.5	11.5	10.0	11.0	4.5	4.0	4.5	4.0	3.5	4.0
25	12.0	11.5	12.0	9.5	8.5	9.0	4.5	4.0	4.0	3.5	3.0	3.0
26	12.5	12.0	12.5	8.5	7.0	8.0	4.0	3.5	4.0	3.0	2.5	3.0
27	13.0	12.0	12.5	7.0	6.0	6.5	4.5	3.5	4.0	3.5	2.0	3.0
28	13.0	11.5	12.5	7.5	6.0	7.0	4.0	3.5	4.0	3.5	3.0	3.5
29	11.5	9.5	10.5	8.0	7.0	7.5	5.0	4.0	4.5	3.5	3.0	3.5
30	11.0	9.0	10.0	9.0	7.5	8.5	5.0	4.0	4.5	4.0	3.0	3.5
31	11.0	10.0	10.5	---	---	---	4.5	3.5	4.0	4.0	3.5	4.0
MONTH	15.0	9.0	12.0	11.5	6.0	8.5	10.0	3.5	6.0	7.0	2.0	4.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	3.5	3.5	6.0	4.5	5.0	6.5	5.5	6.0	10.5	9.5	10.0
2	3.5	3.0	3.5	5.5	5.0	5.5	6.5	6.0	6.0	12.0	10.0	11.0
3	4.0	3.5	3.5	5.5	5.5	5.5	6.5	5.5	6.0	12.5	11.0	11.5
4	4.0	3.0	3.5	6.0	5.0	5.5	6.5	5.5	6.0	11.5	11.0	11.5
5	3.5	3.5	3.5	6.0	5.0	5.5	6.5	5.5	6.0	11.0	10.5	11.0
6	4.0	3.0	3.5	6.5	6.0	6.0	7.0	6.0	6.5	11.5	9.0	10.0
7	4.0	3.0	3.5	7.0	6.0	6.5	7.0	6.0	6.5	10.5	9.5	10.0
8	3.5	3.5	3.5	8.0	7.0	7.5	8.0	6.5	7.5	10.0	10.0	10.0
9	3.5	3.0	3.5	8.0	7.5	8.0	8.0	7.0	7.5	11.0	10.0	10.5
10	3.5	2.5	3.0	8.5	7.5	8.0	8.5	7.5	8.0	11.0	10.5	10.5
11	4.0	2.5	3.5	8.5	7.0	8.0	8.5	8.0	8.5	11.5	10.5	11.0
12	3.5	2.5	3.0	7.0	6.5	7.0	9.0	8.5	8.5	11.5	10.5	11.0
13	3.0	2.5	3.0	6.5	6.0	6.0	8.5	8.0	8.0	11.5	11.0	11.0
14	3.5	3.0	3.5	6.0	5.5	5.5	9.0	7.5	8.0	12.5	11.0	11.5
15	4.0	3.0	3.5	5.5	5.0	5.0	8.5	7.5	8.0	12.0	11.5	11.5
16	4.5	3.5	4.0	5.0	4.5	4.5	8.0	8.0	8.0	11.5	11.5	11.5
17	4.5	3.5	4.0	5.0	4.0	4.5	9.0	8.0	8.5	12.5	11.5	11.5
18	4.5	4.0	4.5	5.5	4.5	5.0	8.5	8.5	8.5	12.5	11.5	12.0
19	5.5	4.5	5.0	5.0	4.5	4.5	8.5	8.5	8.5	13.0	11.5	12.0
20	5.5	5.0	5.5	5.0	4.5	4.5	9.0	8.5	8.5	13.0	10.5	11.5
21	5.5	4.5	5.0	4.5	4.0	4.5	10.5	9.0	9.5	13.0	10.0	11.5
22	5.5	4.5	5.0	4.5	4.0	4.0	10.5	10.0	10.5	13.0	11.0	12.0
23	6.0	5.0	5.5	4.0	3.5	4.0	11.5	10.5	11.0	13.5	11.5	12.5
24	6.0	5.5	6.0	4.0	3.5	4.0	11.5	10.5	11.0	14.0	12.0	13.0
25	6.0	5.5	6.0	4.5	3.5	4.0	11.5	10.5	11.0	12.5	12.0	12.0
26	6.0	5.5	6.0	5.5	4.0	5.0	11.0	10.5	10.5	12.0	11.5	12.0
27	6.0	5.5	5.5	5.5	5.0	5.5	10.5	10.0	10.5	12.0	11.5	11.5
28	6.5	5.5	6.0	5.5	5.0	5.5	10.5	9.5	10.0	12.5	10.5	11.5
29	6.5	5.0	5.5	6.0	5.0	5.5	10.5	9.0	9.5	12.0	11.0	11.5
30	---	---	---	6.0	5.5	5.5	10.5	9.0	9.5	12.0	11.0	11.5
31	---	---	---	6.5	6.0	6.0	---	---	---	12.0	11.5	12.0
MONTH	6.5	2.5	4.5	8.5	3.5	5.5	11.5	5.5	8.5	14.0	9.0	11.5

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.5	12.0	12.5	16.0	15.0	15.5	---	---	---	16.5	15.5	16.0
2	13.0	12.0	12.5	16.0	15.0	15.5	---	---	---	15.5	15.0	15.5
3	13.5	12.0	13.0	15.0	14.5	15.0	---	---	---	17.0	15.5	16.5
4	14.0	12.5	13.0	15.5	15.0	15.5	---	---	---	17.5	17.0	17.0
5	14.0	13.0	13.5	16.0	15.0	15.5	---	---	---	17.5	17.0	17.5
6	14.5	14.0	14.0	16.0	15.5	15.5	---	---	---	17.0	17.0	17.0
7	15.5	14.5	15.0	---	---	---	17.0	16.0	16.5	17.0	17.0	17.0
8	16.5	15.5	16.0	---	---	---	16.5	15.5	16.0	17.5	17.0	17.5
9	17.0	16.0	16.5	---	---	---	17.5	16.5	17.0	18.0	17.5	17.5
10	16.5	15.5	16.0	---	---	---	17.5	17.0	17.5	18.5	17.5	18.0
11	16.0	15.0	15.5	---	---	---	18.0	17.0	17.5	18.5	17.5	18.0
12	16.0	14.5	15.0	---	---	---	18.0	17.5	18.0	17.5	16.0	16.5
13	16.0	14.5	15.0	---	---	---	17.5	17.0	17.0	16.0	15.0	15.5
14	15.5	14.5	15.0	---	---	---	17.0	17.0	17.0	15.0	14.0	14.5
15	16.0	15.0	15.5	---	---	---	17.0	17.0	17.0	14.5	14.0	14.5
16	15.5	14.5	15.0	---	---	---	17.5	17.0	17.0	15.0	14.5	15.0
17	15.5	14.5	15.0	---	---	---	18.5	17.5	18.0	15.5	15.0	15.5
18	15.5	14.0	14.5	---	---	---	19.0	18.5	19.0	16.0	15.5	15.5
19	15.5	14.5	15.0	---	---	---	19.5	18.5	19.0	16.0	15.5	16.0
20	16.0	15.5	15.5	---	---	---	19.0	18.0	18.5	15.5	14.5	15.0
21	15.5	14.5	15.5	---	---	---	17.5	16.5	17.0	15.0	14.5	14.5
22	14.5	13.5	14.5	---	---	---	16.5	15.5	16.0	16.0	15.0	15.5
23	14.5	13.0	13.5	---	---	---	16.5	15.5	16.0	16.0	14.5	15.5
24	14.5	13.5	14.0	---	---	---	16.5	15.5	16.0	14.5	14.0	14.0
25	15.0	14.0	14.5	---	---	---	17.0	16.0	16.5	14.5	13.5	14.0
26	15.0	14.0	14.5	---	---	---	18.0	17.0	17.5	15.0	14.5	15.0
27	15.0	14.5	15.0	---	---	---	18.0	17.0	17.5	15.5	15.0	15.0
28	15.5	14.5	15.0	---	---	---	19.0	18.0	18.5	15.5	15.5	15.5
29	15.5	14.0	15.0	---	---	---	18.5	17.0	18.0	---	---	---
30	15.5	14.5	15.0	---	---	---	17.0	16.0	16.5	---	---	---
31	---	---	---	---	---	---	17.0	16.5	16.5	---	---	---
MONTH	17.0	12.0	14.5	---	---	---	19.5	15.5	17.0	18.5	13.5	16.0

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2.9	2.6	2.8	1.7	1.7	1.7	3.5	2.3	2.9	5.7	5.6	5.6
2	2.6	2.3	2.5	1.8	1.6	1.7	4.8	2.8	3.3	5.7	5.5	5.6
3	2.5	2.1	2.3	2.0	1.6	1.8	4.4	3.8	4.0	5.5	5.3	5.5
4	2.4	2.0	2.2	2.1	1.8	1.9	4.1	3.6	3.9	5.5	5.2	5.4
5	2.9	2.0	2.3	2.3	1.9	2.1	4.4	4.0	4.3	5.2	4.8	5.0
6	2.6	2.2	2.4	2.4	2.1	2.2	4.5	4.4	4.5	4.8	4.7	4.8
7	2.5	2.2	2.3	2.3	2.2	2.3	4.6	4.4	4.5	4.8	4.6	4.7
8	2.5	2.2	2.3	2.4	2.2	2.3	4.5	4.3	4.5	4.8	4.6	4.7
9	2.4	2.1	2.3	2.5	2.2	2.3	4.6	4.1	4.3	4.7	4.5	4.6
10	2.3	2.0	2.1	3.0	2.2	2.5	5.0	4.6	4.7	4.7	4.4	4.6
11	2.9	1.9	2.2	4.1	2.8	3.7	4.7	4.6	4.7	4.7	4.4	4.5
12	2.4	2.1	2.3	3.4	3.2	3.3	4.7	4.5	4.6	4.8	4.7	4.7
13	2.3	2.1	2.2	3.5	3.1	3.3	4.4	4.2	4.3	4.7	4.4	4.6
14	2.4	2.1	2.3	3.2	3.1	3.1	4.4	4.1	4.2	4.7	4.3	4.5
15	2.9	1.9	2.2	3.3	2.8	3.0	4.8	4.4	4.6	4.6	4.3	4.4
16	2.1	1.8	1.9	2.9	2.6	2.8	5.2	4.8	5.0	4.9	4.3	4.7
17	4.2	1.7	2.9	3.0	2.6	2.8	5.4	5.2	5.3	4.8	4.5	4.7
18	2.9	2.1	2.4	3.0	2.8	2.9	5.4	5.2	5.4	4.8	4.5	4.7
19	2.8	2.0	2.3	2.9	2.7	2.8	5.6	5.5	5.5	5.0	4.7	4.9
20	2.7	2.5	2.6	2.7	2.2	2.6	5.7	5.6	5.7	5.0	4.8	4.8
21	2.8	2.5	2.6	2.3	1.9	2.1	5.7	5.6	5.6	5.1	4.8	5.0
22	2.6	2.3	2.5	3.3	1.9	2.2	5.7	5.5	5.6	5.3	5.0	5.1
23	2.5	2.2	2.4	3.1	2.5	2.8	5.6	5.5	5.5	5.8	5.0	5.3
24	2.5	2.1	2.3	2.5	2.2	2.4	5.6	5.4	5.5	5.8	5.7	5.8
25	2.3	2.1	2.2	2.8	2.4	2.6	5.8	5.5	5.6	6.1	5.7	5.8
26	2.4	2.0	2.1	2.9	2.6	2.7	6.0	5.7	5.8	6.4	6.1	6.3
27	2.1	1.9	2.0	3.3	2.8	3.1	5.8	5.7	5.7	6.3	5.9	6.2
28	2.2	1.9	2.0	3.2	2.9	3.0	6.0	5.7	5.8	6.0	5.8	5.9
29	2.2	1.9	2.0	3.0	2.7	2.8	6.3	5.7	6.0	5.8	5.6	5.7
30	2.1	1.7	1.9	2.8	2.3	2.6	6.0	5.6	5.8	5.6	5.4	5.6
31	1.8	1.7	1.8	---	---	---	5.7	5.6	5.6	5.4	5.3	5.3
MONTH	4.2	1.7	2.3	4.1	1.6	2.6	6.3	2.3	4.9	6.4	4.3	5.1

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.4	5.3	5.3	5.1	4.8	4.9	5.3	5.0	5.2	3.5	3.0	3.2
2	5.3	5.1	5.2	5.0	4.7	4.8	5.1	4.9	5.1	3.5	2.7	3.1
3	5.2	5.1	5.1	4.8	4.6	4.7	5.0	4.8	4.9	3.3	2.6	2.9
4	5.3	5.1	5.2	4.9	4.6	4.7	4.9	4.7	4.8	3.4	2.6	2.8
5	5.4	5.2	5.3	4.9	4.4	4.6	4.8	4.7	4.8	3.1	2.6	2.8
6	5.4	5.3	5.4	4.7	4.3	4.5	4.7	4.5	4.6	3.2	2.6	2.8
7	5.4	5.1	5.2	5.1	4.4	4.7	4.6	4.3	4.4	3.2	2.6	2.9
8	5.5	5.0	5.3	4.7	4.2	4.5	4.3	4.0	4.2	3.2	2.6	3.0
9	5.5	5.3	5.4	4.2	3.9	4.1	4.2	3.8	4.0	3.5	2.8	3.1
10	5.6	5.4	5.5	4.3	3.8	3.9	4.0	3.6	3.8	3.4	2.8	3.1
11	5.5	5.3	5.4	4.6	4.1	4.3	3.8	3.5	3.6	3.4	2.9	3.1
12	5.6	5.3	5.5	4.7	4.4	4.5	3.8	3.5	3.6	3.4	2.7	3.0
13	5.6	5.4	5.5	4.9	4.5	4.7	3.9	3.5	3.7	3.2	2.6	2.8
14	5.6	5.4	5.5	5.0	4.7	4.8	3.9	3.6	3.7	3.2	2.5	2.8
15	6.3	5.4	5.6	5.1	4.8	5.0	3.9	3.6	3.7	3.2	2.5	2.8
16	6.4	6.0	6.2	5.3	5.0	5.1	3.8	3.6	3.6	3.1	2.7	2.9
17	6.1	6.0	6.1	5.3	5.1	5.2	4.0	3.7	3.8	3.5	2.8	3.0
18	6.1	5.8	5.9	5.6	5.0	5.3	4.0	3.7	3.8	3.3	2.5	2.8
19	5.8	5.5	5.7	6.6	5.5	6.0	3.9	3.6	3.8	3.3	2.5	2.8
20	5.5	5.3	5.4	6.3	6.0	6.2	3.9	3.5	3.7	3.4	2.8	3.0
21	5.4	5.3	5.3	6.4	6.2	6.3	3.7	3.1	3.5	3.5	2.7	3.1
22	5.4	5.1	5.3	6.4	6.2	6.3	3.4	3.0	3.2	3.5	2.6	2.9
23	5.2	4.9	5.1	6.6	6.2	6.4	3.4	2.9	3.1	3.5	2.5	2.9
24	5.0	4.8	4.9	6.9	6.6	6.7	3.3	2.7	2.9	3.5	2.4	2.8
25	4.9	4.8	4.8	6.8	6.6	6.7	3.3	2.7	2.9	3.3	2.5	2.8
26	5.3	4.9	5.2	6.9	6.3	6.5	3.4	2.8	3.1	3.3	2.6	2.9
27	5.3	5.0	5.1	6.8	6.2	6.6	3.4	3.0	3.2	3.7	2.8	3.1
28	5.0	4.7	4.9	6.3	6.0	6.2	3.7	3.1	3.3	3.7	2.8	3.1
29	5.0	4.6	4.9	6.0	5.7	5.9	3.7	3.1	3.3	3.6	2.8	3.1
30	---	---	---	5.8	5.6	5.7	3.7	3.1	3.3	3.5	2.7	3.0
31	---	---	---	5.6	5.3	5.5	---	---	---	3.7	2.6	3.0
MONTH	6.4	4.6	5.4	6.9	3.8	5.3	5.3	2.7	3.8	3.7	2.4	2.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3.2	2.7	2.9	3.9	2.6	2.9	---	---	---	2.4	2.0	2.2
2	3.3	2.7	2.9	3.8	2.6	3.0	---	---	---	2.6	2.1	2.3
3	3.4	2.6	2.9	3.5	2.8	3.1	---	---	---	2.9	2.1	2.4
4	3.3	2.6	2.9	3.7	2.5	3.0	---	---	---	2.5	2.1	2.3
5	4.6	2.5	3.1	3.5	2.5	2.9	---	---	---	2.4	2.1	2.2
6	2.5	2.0	2.3	3.5	2.5	2.8	---	---	---	2.4	2.1	2.2
7	2.7	1.8	2.3	---	---	---	---	---	---	2.5	2.1	2.2
8	2.3	1.8	2.0	---	---	---	---	---	---	2.4	2.0	2.2
9	2.5	1.7	2.1	---	---	---	---	---	---	2.3	2.0	2.1
10	2.7	2.1	2.4	---	---	---	---	---	---	2.3	1.9	2.1
11	2.9	2.4	2.5	---	---	---	---	---	---	2.5	2.1	2.3
12	2.9	2.4	2.6	---	---	---	---	---	---	2.7	2.3	2.4
13	3.0	2.4	2.6	---	---	---	---	---	---	2.9	2.5	2.6
14	3.1	2.3	2.6	---	---	---	---	---	---	2.8	2.5	2.6
15	3.2	2.3	2.6	---	---	---	---	---	---	2.9	2.4	2.6
16	3.3	2.4	2.7	---	---	---	---	---	---	2.8	2.3	2.5
17	3.4	2.6	2.8	---	---	---	---	---	---	2.7	2.3	2.4
18	3.5	2.6	2.9	---	---	---	---	---	---	2.6	2.1	2.3
19	4.0	2.4	2.8	---	---	---	---	---	---	2.4	2.1	2.2
20	2.9	2.3	2.5	---	---	---	---	---	---	2.6	2.2	2.4
21	3.3	2.4	2.7	---	---	---	---	---	---	2.6	2.3	2.4
22	3.3	2.7	2.9	---	---	---	---	---	---	2.5	2.2	2.3
23	3.6	2.8	3.1	---	---	---	---	---	---	2.6	2.3	2.4
24	3.4	2.7	2.9	---	---	---	---	---	---	2.8	2.4	2.6
25	3.7	2.6	3.0	---	---	---	---	---	---	4.8	2.4	3.0
26	3.7	2.6	3.0	---	---	---	2.4	2.0	2.1	4.6	2.8	3.3
27	3.6	2.6	2.9	---	---	---	2.9	1.9	2.1	3.1	2.6	2.9
28	3.7	2.6	3.0	---	---	---	2.3	1.7	2.0	2.9	2.6	2.7
29	3.8	2.6	3.0	---	---	---	2.2	1.8	1.9	---	---	---
30	4.0	2.6	3.0	---	---	---	2.3	2.0	2.1	---	---	---
31	---	---	---	---	---	---	2.4	2.0	2.1	---	---	---
MONTH	4.6	1.7	2.7	---	---	---	---	---	---	4.8	1.9	2.4

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ

LOCATION.--Lat 39°58'10", long 74°41'05", Burlington County, Hydrologic Unit 02040202, on right bank at downstream side of bridge on Hanover Street in Pemberton, 12 mi upstream from confluence with South Branch Rancocas Creek.

DRAINAGE AREA.--118 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to current year.

REVISED RECORDS.--WSP 1302: 1922-23. WSP 1382: 1933. WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder above concrete dams. Datum of gage is 31.19 ft above sea level. Prior to June 9, 1923, nonrecording gage and June 9, 1923 to Aug. 9, 1951, water-stage recorder at site 600 ft downstream at datum 6.54 ft lower.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated occasionally by cranberry bogs and ponds above station. Water diverted for water supply at Fort Dix army base upstream of gage. Several measurements of water temperature, other than those published, were made during the year. Gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 19	1630	*590	*2.44	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	94	67	107	95	116	164	55	169	65	280	99
2	75	95	80	99	91	116	161	57	141	77	414	94
3	81	86	139	99	88	112	151	59	116	71	404	91
4	83	93	220	111	85	113	149	61	101	103	327	92
5	75	81	232	139	84	111	126	59	139	100	250	93
6	70	74	220	143	83	107	109	60	304	89	183	91
7	73	70	180	134	80	111	104	59	338	86	142	91
8	69	77	154	124	81	126	107	71	298	79	119	92
9	66	80	143	111	84	128	114	99	248	79	111	93
10	65	80	159	107	81	123	114	98	203	78	105	105
11	70	103	169	99	80	142	103	107	159	99	103	129
12	69	111	159	95	79	151	101	120	131	89	110	120
13	67	103	143	95	77	150	108	110	107	79	109	104
14	66	95	134	99	81	135	110	80	94	73	115	90
15	65	88	129	103	92	119	106	69	82	73	121	87
16	68	84	124	95	134	110	103	73	70	73	168	84
17	92	80	120	91	139	107	108	80	66	70	278	79
18	129	77	111	88	141	104	107	77	61	67	468	76
19	125	77	101	84	142	148	117	72	83	64	567	75
20	107	73	95	84	132	177	122	66	115	68	556	80
21	94	73	91	80	122	180	111	61	126	69	425	78
22	89	73	91	80	112	172	115	62	115	69	324	90
23	85	95	91	100	106	169	119	67	99	84	259	95
24	82	99	91	120	103	166	109	68	91	102	208	93
25	90	95	91	120	109	156	103	60	88	115	163	103
26	98	84	88	112	133	157	103	58	86	107	145	190
27	90	77	88	104	134	202	97	58	82	102	139	234
28	78	70	88	100	132	209	87	57	78	92	137	276
29	71	70	95	99	126	201	77	55	75	63	142	273
30	70	67	120	97	---	173	58	56	71	57	126	286
31	73	---	120	96	---	164	---	97	---	136	98	---
TOTAL	2533	2524	3933	3215	3026	4455	3363	2231	3936	2578	7096	3583
MEAN	81.7	84.1	127	104	104	144	112	72.0	131	83.2	229	119
MAX	129	111	232	143	142	209	164	120	338	136	567	286
MIN	65	67	67	80	77	104	58	55	61	57	98	75
CFSM	.69	.71	1.08	.88	.88	1.22	.95	.61	1.11	.70	1.94	1.01
IN.	.80	.80	1.24	1.01	.95	1.40	1.06	.70	1.24	.81	2.24	1.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	119	152	170	198	215	243	236	196	144	124	133	118
MAX	365	430	434	479	445	469	475	397	297	401	426	341
(WY)	1928	1973	1973	1979	1939	1958	1984	1958	1968	1938	1958	1971
MIN	38.7	45.7	54.4	62.1	92.2	105	85.4	72.0	54.8	44.1	41.4	40.1
(WY)	1923	1923	1966	1981	1931	1985	1985	1992	1942	1957	1957	1957

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	57581		42473			
ANNUAL MEAN	158		116		170	
HIGHEST ANNUAL MEAN					286	1978
LOWEST ANNUAL MEAN					92.7	1985
HIGHEST DAILY MEAN	761	Jan 13	567	Aug 19	1690	Aug 21 1939
LOWEST DAILY MEAN	55	Jul 12	55	May 1	9.0	Sep 29 1932
ANNUAL SEVEN-DAY MINIMUM	61	Aug 29	58	Apr 30	27	Oct 2 1922
INSTANTANEOUS PEAK FLOW			590	Aug 19	1730	Aug 21 1939
INSTANTANEOUS PEAK STAGE			2.44	Aug 19	10.77a	Aug 21 1939
INSTANTANEOUS LOW FLOW			55	May 1	---	
ANNUAL RUNOFF (CFSM)	1.34		.98		1.44	
ANNUAL RUNOFF (INCHES)	18.15		13.39		19.62	
10 PERCENT EXCEEDS	294		169		310	
50 PERCENT EXCEEDS	115		99		140	
90 PERCENT EXCEEDS	67		69		63	

a From high-water mark, site and datum then in use.

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1958, 1962-69, 1975 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
04...	0915	95	49	5.0	11.0	8.6	77	E1.3	240	8
JAN 1992										
21...	1030	80	51	5.2	0.5	12.5	86	E1.5	<2	<10
MAR										
19...	1130	154	57	5.9	2.0	13.0	95	0.9	79	330
MAY										
20...	1015	67	47	5.4	17.0	7.5	76	<1.0	2	20
JUL										
16...	1030	73	42	5.4	25.0	6.1	75	<1.0	110	160

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 1991									
04...	8	1.8	0.95	3.8	1.0	2.5	6.5	6.9	<0.1
JAN 1992									
21...	9	2.2	0.97	3.5	0.90	2.5	12	6.6	0.2
MAR									
19...	11	2.7	1.1	4.0	1.0	2.4	10	5.6	<0.1
MAY									
20...	8	1.8	0.87	3.5	0.90	1.6	7.8	5.9	<0.1
JUL									
16...	6	1.4	0.71	3.2	0.70	1.7	5.4	4.7	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
04...	5.3	28	E0.006	0.003	0.06	0.06	0.05	0.04	0.27
JAN 1992									
21...	5.5	34	<0.003	<0.003	0.17	0.14	0.04	0.04	0.26
MAR									
19...	4.4	31	0.004	0.003	0.16	0.16	0.08	0.03	0.31
MAY									
20...	3.5	26	<0.003	<0.003	0.08	0.07	<0.03	<0.03	0.31
JUL									
16...	4.0	22	0.004	<0.003	0.10	0.10	0.05	<0.03	0.47

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 1991									
04...	0.20	0.33	0.26	0.03	<0.02	5.2	1.2	3	0.77
JAN 1992									
21...	0.18	0.43	0.32	0.07	0.14	3.8	0.4	2	0.43
MAR									
19...	0.18	0.47	0.34	0.03	<0.02	4.0	0.5	5	2.1
MAY									
20...	0.24	0.39	0.31	0.07	<0.02	5.3	1.2	--	--
JUL									
16...	0.25	0.57	0.35	0.09	0.05	6.2	1.9	5	0.99

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 1992 20...	1015	12	<1	<10	20	<1	<1	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAY 1992 20...	1300	4	30	<0.10	1	<1	10

01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ

LOCATION.--Lat 39°57'07", long 74°58'10", Burlington County, Hydrologic Unit 02040202, at bridge on Kings Highway, 200 ft downstream from outlet of Strawbridge Lake, 0.6 mi northwest of Moorestown Mall, 0.8 mi southeast of Lenola, and 1.8 mi southwest of Moorestown.

DRAINAGE AREA.--12.8 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
24...	0930	3.5	245	7.7	14.0	8.7	85	<1.0	1700	270
JAN 1992										
15...	0930	4.4	302	7.0	3.5	13.1	99	2.9	110	--
APR										
08...	1230	4.5	330	7.1	12.5	13.4	126	E1.7	<20	70
MAY										
19...	0730	3.2	274	6.9	17.5	7.5	77	E2.0	700	20
JUL										
20...	0815	3.0	226	6.6	26.0	5.9	73	E1.9	210	200

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
24...	76	21	5.7	9.9	4.8	19	59	20	0.2
JAN 1992									
15...	93	26	6.8	13	4.5	16	69	30	0.3
APR									
08...	95	26	7.2	20	4.2	12	72	45	0.3
MAY									
19...	80	22	6.1	14	4.2	15	56	29	0.2
JUL									
20...	68	19	4.9	11	4.6	25	42	22	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
24...	9.3	143	0.009	0.007	0.34	0.42	0.36	0.15	0.66
JAN 1992									
15...	12	174	0.011	0.010	0.61	0.61	0.18	0.28	0.73
APR									
08...	11	195	0.017	0.015	0.45	0.54	0.09	0.10	0.57
MAY									
19...	9.9	152	0.021	0.019	0.38	0.36	0.37	0.34	0.90
JUL									
20...	5.4	125	0.023	0.018	0.20	0.20	0.20	0.21	0.98

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
24...	0.52	1.0	0.94	0.13	0.04	3.4	1.4	15	0.14
JAN 1992									
15...	0.42	1.3	1.0	0.06	<0.02	2.4	0.1	22	0.26
APR									
08...	0.30	1.0	0.84	0.13	<0.02	2.4	1.4	24	0.29
MAY									
19...	0.59	1.3	0.95	0.15	<0.02	3.3	1.8	19	0.16
JUL									
20...	0.44	1.2	0.64	0.24	0.03	4.6	2.0	23	0.19

01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 1992 19...	0730	12	2	<10	30	<1	<1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAY 1992 19...	3500	4	250	<0.10	11	<1	20

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ

LOCATION.--Lat 39°56'30", long 75°00'05", Camden County, Hydrologic Unit 02040202, on left bank on downstream wingwall of bridge on Mill Road in Cherry Hill, 1.1 mi south of Maple Shade and 3.8 mi upstream from confluence with the North Branch Pennsauken Creek.

DRAINAGE AREA.--8.98 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1976, October 1977 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area. WDR NJ-90-1: 1968 (P), 1970 (P), 1971 (P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.12 ft above sea level.

REMARKS.--Records fair. Diurnal fluctuations from unknown source. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	2230	527	8.59	July 31	1100	*555	*8.83

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	4.7	17	6.2	5.8	7.4	9.3	5.7	16	11	30	4.2
2	4.3	4.9	40	6.1	5.1	7.1	9.6	5.8	7.9	10	7.8	4.2
3	4.5	5.1	156	5.9	5.1	7.0	7.9	5.4	6.6	24	5.7	6.7
4	4.0	4.9	66	24	5.1	6.9	7.5	5.0	6.3	89	5.0	11
5	3.9	5.1	13	10	5.3	7.0	7.0	4.9	172	8.6	4.5	4.5
6	4.1	4.8	8.9	7.0	5.1	6.8	6.5	4.8	184	5.6	4.2	4.4
7	5.2	5.0	7.4	6.4	5.0	27	6.3	4.7	17	5.0	6.8	4.3
8	3.9	5.2	6.8	5.5	6.3	12	7.0	71	10	4.5	4.2	4.3
9	4.2	4.7	13	6.6	7.0	8.1	7.3	47	9.0	6.0	15	4.2
10	3.9	5.3	58	6.6	5.8	17	6.6	17	6.2	17	4.3	14
11	5.2	38	7.3	5.7	5.1	50	6.4	10	5.7	24	27	63
12	5.3	7.8	4.8	5.3	5.1	11	6.6	8.0	5.2	5.2	14	6.7
13	3.8	8.2	5.2	5.3	5.2	8.5	6.1	7.4	5.1	5.0	5.2	4.9
14	3.6	5.2	7.0	11	7.8	7.4	6.0	7.0	4.8	7.2	18	4.2
15	30	4.8	4.5	5.8	20	7.2	6.0	6.6	4.8	17	17	3.7
16	10	4.6	3.6	5.1	44	6.5	9.3	21	4.7	27	43	3.6
17	89	4.7	3.3	5.1	10	7.0	12	9.2	4.4	8.7	30	3.8
18	32	4.5	3.1	5.1	18	8.4	10	7.2	4.3	8.1	30	4.1
19	7.9	4.7	2.8	5.0	16	70	9.8	7.7	71	7.3	8.0	3.8
20	5.7	4.7	2.9	4.7	9.3	21	6.7	6.2	21	7.6	5.8	3.8
21	5.2	4.8	3.1	4.7	7.7	11	6.8	6.4	6.4	6.8	6.4	3.5
22	5.0	41	3.9	4.6	7.0	11	15	6.4	5.2	8.1	4.5	3.7
23	4.9	24	3.9	24	6.7	21	32	5.7	5.2	115	4.3	13
24	5.0	6.9	3.7	36	7.2	11	8.3	5.7	5.9	20	4.0	8.0
25	4.8	5.4	3.5	8.4	7.4	8.6	7.2	8.3	6.9	9.6	4.1	20
26	4.8	5.0	3.2	7.5	45	28	7.4	9.4	4.7	8.1	6.6	217
27	5.0	4.8	3.2	6.6	13	51	8.5	8.0	4.4	8.6	36	e15
28	5.0	4.7	3.4	6.2	9.4	14	6.5	6.2	4.2	7.3	52	e9.9
29	4.9	4.6	37	6.1	8.7	10	6.1	6.2	4.6	6.0	24	e9.8
30	4.8	4.6	15	5.9	---	8.9	5.6	6.8	5.3	4.2	6.1	e6.2
31	4.9	---	7.6	6.0	---	16	---	70	---	181	4.7	---
TOTAL	289.2	242.7	518.1	258.4	308.2	493.8	257.3	400.7	618.8	672.5	438.2	469.5
MEAN	9.33	8.09	16.7	8.34	10.6	15.9	8.58	12.9	20.6	21.7	14.1	15.6
MAX	89	41	156	36	45	70	32	71	184	181	52	217
MIN	3.6	4.5	2.8	4.6	5.0	6.5	5.6	4.7	4.2	4.2	4.0	3.5
CFSM	1.04	.90	1.86	.93	1.18	1.77	.96	1.44	2.30	2.42	1.57	1.74
IN.	1.20	1.01	2.15	1.07	1.28	2.05	1.07	1.66	2.56	2.79	1.82	1.94

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1992, BY WATER YEAR (WY)

MEAN	13.3	17.4	21.6	21.6	19.9	22.0	22.2	20.6	15.8	17.7	16.2	13.9
MAX	26.0	48.8	40.8	50.5	44.7	41.0	49.8	47.0	33.4	46.5	58.2	38.8
(WY)	1990	1973	1978	1979	1979	1984	1983	1989	1989	1989	1978	1975
MIN	6.08	6.99	7.05	6.55	9.19	9.29	8.08	8.57	6.65	6.92	6.22	4.71
(WY)	1969	1977	1981	1981	1968	1985	1985	1969	1971	1982	1968	1968

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1968 - 1992	
ANNUAL TOTAL	6293.5		4967.4			
ANNUAL MEAN	17.2		13.6		18.6	
HIGHEST ANNUAL MEAN					27.3	1978
LOWEST ANNUAL MEAN					12.2	1981
HIGHEST DAILY MEAN	402	Jul 13	217	Sep 26	551	Jul 5 1989
LOWEST DAILY MEAN	2.3	Jul 12	2.8	Dec 19	2.3	Jul 12 1991
ANNUAL SEVEN-DAY MINIMUM	3.2	Jun 26	3.2	Dec 16	3.2	Jun 26 1991
INSTANTANEOUS PEAK FLOW			555	Jul 31	868	Aug 28 1978
INSTANTANEOUS PEAK STAGE			8.83	Jul 31	113.40	Aug 28 1978
INSTANTANEOUS LOW FLOW			2.4	Jan 19	2.4	Jan 19 1992
ANNUAL RUNOFF (CFSM)	1.92		1.51		2.07	
ANNUAL RUNOFF (INCHES)	26.07		20.58		28.15	
10 PERCENT EXCEEDS	38		27		35	
50 PERCENT EXCEEDS	6.9		6.6		10	
90 PERCENT EXCEEDS	3.4		4.2		5.1	

e Estimated.

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-73, 1975 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
28...	0900	4.8	364	7.2	15.0	5.0	49	2.9	3900	4600
JAN 1992										
15...	1100	11	309	7.2	3.0	--	--	3.3	500	115
APR										
09...	1300	6.7	330	7.7	12.5	14.7	138	3.1	1700	1050
MAY										
19...	1000	8.2	339	6.7	16.0	6.3	63	2.9	>24000	760
JUL										
21...	1115	7.3	333	7.2	23.0	6.2	72	<1.0	35000	27000

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
28...	92	25	7.1	28	9.7	54	49	32	0.2
JAN 1992									
15...	81	22	6.3	18	6.2	36	48	28	0.3
APR									
09...	90	25	6.8	19	7.1	38	47	34	0.3
MAY									
19...	83	23	6.3	26	8.0	46	42	33	0.3
JUL									
21...	88	25	6.2	24	10	64	38	28	0.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
28...	13	212	0.247	0.251	3.43	3.50	0.31	0.26	1.3
JAN 1992									
15...	12	175	0.041	0.041	2.76	2.74	0.56	0.54	1.0
APR									
09...	5.2	184	0.118	0.116	3.60	3.60	0.37	0.40	1.4
MAY									
19...	12	193	0.188	0.187	3.18	3.19	0.61	0.51	1.4
JUL									
21...	9.9	193	0.143	0.142	2.87	2.89	0.17	0.18	0.58

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
28...	1.0	4.7	4.5	0.54	0.37	6.4	0.5	5	0.06
JAN 1992									
15...	0.91	3.8	3.6	0.28	0.07	4.2	--	5	0.15
APR									
09...	0.68	5.0	4.3	--	0.04	4.3	--	8	0.14
MAY									
19...	1.1	4.6	4.3	0.43	0.07	5.6	0.7	12	0.27
JUL									
21...	0.33	3.5	3.2	0.34	--	3.6	0.5	5	0.10

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 1992 19...	1000	27	1	<10	120	<1	<1	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAY 1992 19...	2100	2	130	<0.10	16	<1	30

01467150 COOPER RIVER AT HADDONFIELD, NJ

LOCATION.--Lat 39°54'11", long 75°01'19", Camden County, Hydrologic Unit 02040202, on right bank of 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1967(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 9.29 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Bypass gates were installed on both ends of the dam in August 1987. No gate openings this year. Occasional regulation at low flow from Kirkwood Lake, other small lakes and wastewater treatment plants (prior to summer 1987). Several measurements of water temperature were made during the year. Gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	2115	*862	*3.24	Sep. 26	0615	541	2.78

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.6	20	11	13	12	15	10	24	54	25	7.4
2	8.8	8.0	48	11	12	12	18	11	11	43	10	7.6
3	8.0	7.9	200	11	12	12	16	11	9.3	35	8.9	13
4	7.8	7.7	103	30	12	12	16	9.5	9.1	100	8.2	17
5	7.4	7.6	22	18	12	12	16	9.5	220	21	7.7	9.7
6	7.7	7.6	16	13	12	12	15	9.6	321	14	7.7	8.3
7	7.7	7.6	14	11	12	36	15	9.4	32	12	7.6	9.0
8	7.1	7.7	13	10	14	21	16	111	20	10	7.6	8.6
9	7.0	7.8	15	11	13	14	18	88	19	11	16	8.7
10	7.1	8.1	79	12	12	20	19	20	13	9.3	8.3	16
11	7.1	34	21	11	12	72	16	12	11	23	21	92
12	8.7	14	15	10	12	19	16	10	9.8	11	30	13
13	7.4	12	15	11	12	14	15	10	9.3	9.9	12	9.4
14	7.3	9.1	18	16	16	13	15	9.4	9.2	12	26	8.4
15	42	8.3	14	11	35	12	12	8.8	8.9	9.6	30	8.0
16	19	8.1	11	10	64	11	12	76	8.3	13	78	7.7
17	123	8.1	11	9.3	20	11	16	28	8.0	10	50	8.3
18	69	7.6	11	9.2	29	12	15	11	7.9	9.1	46	8.9
19	16	7.8	10	9.2	24	89	17	10	72	8.6	17	7.7
20	10	8.3	10	9.0	16	33	12	9.2	24	8.7	11	7.3
21	9.5	8.3	10	9.2	14	17	12	9.6	12	9.4	9.6	7.1
22	9.2	34	10	9.2	14	15	20	9.3	9.4	11	9.1	8.7
23	9.1	30	11	31	13	25	32	8.9	9.2	77	8.5	23
24	8.8	12	11	58	13	16	12	8.7	9.4	21	7.8	8.1
25	8.8	9.7	10	19	14	13	12	9.1	12	12	7.7	13
26	8.8	9.0	10	16	63	33	13	13	9.1	10	7.6	259
27	8.8	8.6	10	14	23	73	9.9	15	8.3	9.9	30	34
28	8.8	8.0	10	14	16	23	10	11	8.8	9.9	10	20
29	7.8	8.3	45	13	13	18	11	10	7.6	8.9	24	18
30	8.0	8.1	24	13	---	16	11	11	7.3	7.7	8.8	11
31	7.9	---	14	13	---	21	---	99	---	86	7.7	---
TOTAL	484.6	330.9	831	453.1	547	719	452.9	678.0	939.9	687.0	558.8	677.9
MEAN	15.6	11.0	26.8	14.6	18.9	23.2	15.1	21.9	31.3	22.2	18.0	22.6
MAX	123	34	200	58	64	89	32	111	321	100	78	259
MIN	7.0	7.6	10	9.0	12	11	9.9	8.7	7.3	7.7	7.6	7.1
CFSM	.92	.65	1.58	.86	1.11	1.36	.89	1.29	1.84	1.30	1.06	1.33
IN.	1.06	.72	1.82	.99	1.20	1.57	.99	1.48	2.06	1.50	1.22	1.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

MEAN	27.7	32.6	37.9	38.8	37.9	40.8	41.8	38.5	30.4	32.1	30.3	26.9
MAX	46.8	79.6	74.6	97.8	76.1	78.9	99.4	66.7	54.9	66.8	97.6	65.8
(WY)	1976	1973	1973	1978	1979	1984	1983	1983	1972	1975	1971	1975
MIN	9.26	11.0	14.3	14.6	18.9	23.2	15.1	14.2	10.9	14.5	7.79	13.0
(WY)	1966	1992	1966	1992	1992	1981	1992	1965	1988	1990	1966	1965

01467150 COOPER RIVER AT HADDONFIELD, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	9683.3		7360.1			
ANNUAL MEAN	26.5		20.1		34.6	
HIGHEST ANNUAL MEAN					50.6	1973
LOWEST ANNUAL MEAN					20.1	1992
HIGHEST DAILY MEAN	407	Jul 13	321	Jun 6	1510	Aug 28 1971
LOWEST DAILY MEAN	6.4	Jun 15	7.0	Oct 9	1.2	Jun 27 1964
ANNUAL SEVEN-DAY MINIMUM	7.3	Oct 5	7.3	Oct 5	5.6	Aug 24 1966
INSTANTANEOUS PEAK FLOW			862	Jun 5	3300	Aug 28 1971
INSTANTANEOUS PEAK STAGE			3.24	Jun 5	5.46	Aug 28 1971
INSTANTANEOUS LOW FLOW			7.0	Oct 8	.80a	Nov 13 1972
ANNUAL RUNOFF (CFSM)	1.56		1.18		2.04	
ANNUAL RUNOFF (INCHES)	21.19		16.11		27.68	
10 PERCENT EXCEEDS	52		34		58	
50 PERCENT EXCEEDS	15		12		24	
90 PERCENT EXCEEDS	7.8		7.8		13	

a Regulation from unknown source.

01467150 COOPER RIVER AT HADDONFIELD, NJ--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-79, 1991 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
22...	1200	9.2	181	7.0	12.0	10.3	95	E1.3	330	80
JAN 1992										
23...	0930	10	206	6.8	3.0	11.9	89	E1.5	70	40
MAR										
19...	1215	122	175	7.2	4.5	11.7	92	--	790	670
MAY										
28...	0945	11	196	6.6	14.0	7.8	75	2.6	2400	240
JUL										
22...	0930	E13	201	7.0	24.0	6.7	79	2.8	800	100

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
22...	54	15	4.1	9.0	4.1	29	25	19	0.1
JAN 1992									
23...	57	16	4.1	11	3.8	29	29	23	0.2
MAR									
19...	39	11	2.7	15	1.9	20	17	24	<0.1
MAY									
28...	54	15	4.1	10	3.6	29	23	21	0.2
JUL									
22...	58	16	4.4	10	4.2	29	23	22	0.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
22...	11	106	0.011	0.010	0.29	0.30	0.23	0.28	0.57
JAN 1992									
23...	13	119	0.005	0.005	0.45	0.40	0.11	0.11	0.58
MAR									
19...	5.0	91	0.018	0.013	0.47	0.49	0.21	0.22	0.80
MAY									
28...	10	106	0.027	0.025	0.35	0.36	0.22	0.22	1.2
JUL									
22...	12	111	0.026	0.023	0.32	0.33	0.26	0.22	0.93

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
22...	0.54	0.86	0.84	0.18	<0.02	3.4	1.2	18	0.45
JAN 1992									
23...	0.24	1.0	0.64	0.18	0.02	2.2	--	8	0.22
MAR									
19...	0.47	1.3	0.96	0.28	<0.02	4.5	1.6	31	10
MAY									
28...	0.60	1.5	0.96	0.31	0.04	5.4	0.1	26	0.77
JUL									
22...	0.44	1.2	0.77	0.33	0.05	3.8	2.7	28	--

01467150 COOPER RIVER AT HADDONFIELD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
OCT 1991											
22...	1200	--	<1	E1	4.3	120	470	0.6	5.8	--	7
MAY 1992											
28...	0945	26	--	--	--	--	--	--	--	3	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991										
22...	--	--	--	<1	--	4	<5	--	3	--
MAY 1992										
28...	<10	50	<1	--	2	--	--	3	--	5300

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991										
22...	6200	--	30	--	24	--	0.01	--	<10	--
MAY 1992										
28...	--	7	--	110	--	0.20	--	50	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991										
22...	<1	--	30	6	<1.0	<0.1	48	4.1	<2.0	12
MAY 1992										
28...	--	30	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	ORGANIC HALOGEN TOT REC FROM BOTTOM MATERIAL (UG/G) AS CL
OCT 1991											
22...	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<0.1	<1.00	<10	0.422
MAY 1992											
28...	--	--	--	--	--	--	--	--	--	--	--

01467329 SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD TERRACE, NJ

LOCATION.--Lat 39°48'05", long 75°04'27", Gloucester County, Hydrologic Unit 02040202, at bridge on Blackwood-Clementon Road at Blackwood Terrace, 1,000 ft upstream from Bull Run, and 2.0 mi northeast of Fairview.

DRAINAGE AREA.--19.1 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
22...	1405	23	167	7.3	15.0	10.3	101	E1.3	230	80
JAN 1992										
22...	0930	11	174	6.4	1.0	14.5	101	E1.4	<20	140
APR										
16...	1100	22	167	7.5	11.0	11.5	103	E1.3	4	30
MAY										
21...	0815	20	175	6.6	14.5	8.0	77	<1.0	460	140
JUL										
22...	0815	18	155	6.8	24.0	5.6	66	<1.0	1300	700

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
22...	44	12	3.3	12	3.3	27	10	15	<0.1
JAN 1992									
22...	42	12	3.0	11	2.9	28	21	21	0.2
APR									
16...	45	13	3.0	12	3.4	30	15	17	0.1
MAY									
21...	42	12	2.9	12	2.7	27	13	20	<0.1
JUL									
22...	39	11	2.9	11	3.0	28	10	18	<0.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
22...	6.6	84	0.040	0.038	1.06	1.06	0.55	0.51	0.94
JAN 1992									
22...	7.4	104	0.010	0.009	1.69	1.72	0.60	0.55	0.86
APR									
16...	4.5	91	--	--	1.14	1.14	0.07	0.09	0.43
MAY									
21...	5.5	89	0.070	0.068	0.95	0.96	0.66	0.60	1.3
JUL									
22...	4.6	82	0.027	0.025	1.03	1.03	<0.03	0.12	0.49

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
22...	0.77	2.0	1.8	0.07	0.03	3.6	0.8	18	1.1
JAN 1992									
22...	0.69	2.6	2.4	0.69	0.02	2.8	0.6	9	0.27
APR									
16...	0.29	1.6	1.4	0.07	<0.02	2.9	0.6	23	1.4
MAY									
21...	1.1	2.2	2.0	0.14	0.02	4.8	1.4	17	0.92
JUL									
22...	0.33	1.5	1.4	0.16	0.05	4.0	0.5	22	1.1

01467329 SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD TERRACE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 1992 21...	0815	23	1	<10	120	<1	<1	2

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAY 1992 21...	2300	4	80	<0.10	19	<1	20

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA
(National stream-quality accounting network station)

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, PA, Hydrologic Unit 02040203, on right bank 150 ft upstream from Fairmount Dam, 1,500 ft upstream from Spring Garden Street bridge in Philadelphia, and 8.7 mi upstream from mouth. Water-quality sampling site 1.6 mi upstream. Water-quality monitor intake at gage. See Pennsylvania report for current year water-quality data.

DRAINAGE AREA.--1,893 mi^2.

PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 214, 261, 301, 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.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft above sea level. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956, to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft upstream from Fairmount Dam at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Reservoir (station 01470870) since April 1979, Green Lane Reservoir (station 01472200) since December 1956, and to some extent by Lake Ontelaunee. Records of discharge do not include diversion above station by city of Philadelphia for municipal water supply.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 1869, reached a stage of 17.0 ft, discharge, 135,000 ft^3/s, from rating extended above 46,000 ft^3/s. Flood of Mar. 1, 1902, reached a stage of 14.8 ft, discharge, 98,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	576	621	1100	1580	1260	2270	4740	1880	6900	1230	1580	713
2	559	621	1270	1430	1170	1960	4090	1740	5760	944	1220	643
3	543	622	6390	1210	1140	1760	3360	1630	4260	866	1110	620
4	499	639	8590	1310	1080	1590	2870	1550	3170	1280	1070	668
5	476	607	4970	1600	1010	1440	2590	1490	4720	1060	1020	664
6	559	589	3370	1620	964	1330	2320	1420	10100	1250	998	699
7	670	616	2770	1370	890	1630	2050	1380	7400	1590	882	839
8	809	620	2380	1190	915	2880	1890	2360	5550	1450	692	942
9	695	582	2230	1160	926	2560	1800	8010	4620	1030	711	788
10	655	568	4040	1240	865	2100	1640	5720	3770	1180	803	820
11	600	676	3840	1230	817	4770	1690	4140	3080	1340	965	977
12	596	732	3020	1190	794	4710	1740	3260	2600	1080	1600	1110
13	756	726	2510	1160	812	3880	1620	2780	2220	1040	1340	1160
14	767	696	2800	1440	794	3290	1450	2480	1950	1060	1150	867
15	892	652	2900	2700	977	2810	1360	2370	1790	1310	1150	756
16	873	627	2410	2250	2670	2500	1330	3180	1600	1870	1060	677
17	1640	581	2100	1530	2410	2190	1410	3560	1430	2070	1280	620
18	2700	614	1700	1410	1910	2010	1750	3030	1300	2340	1350	569
19	1990	568	1480	1160	1730	2660	1530	2560	2330	2190	1400	625
20	1530	568	1280	1030	1780	2980	1600	2310	2510	1600	1660	587
21	1250	568	1280	1160	1580	3090	1470	2020	1760	1350	1090	597
22	1060	1210	1320	1200	1390	2730	1630	1710	1370	1240	898	588
23	868	4810	1310	1550	1330	2660	2550	1540	1350	1390	762	802
24	783	5060	1290	2910	1360	2650	2460	1440	1500	1650	748	798
25	743	3590	1240	2840	1360	2390	2380	1490	1420	1540	680	823
26	701	2340	1200	2000	2050	2610	2900	1390	1430	1540	804	2960
27	673	1560	1070	1680	3240	10800	2590	1620	1170	1470	721	3500
28	692	1180	977	1500	2870	13700	2310	1730	1040	1420	642	3060
29	642	1110	1230	1310	2520	9380	2120	1350	e1000	1570	701	2200
30	633	1080	1940	1260	---	7120	1960	1190	1070	1460	904	1730
31	680	---	1960	1230	---	5690	---	2610	---	2070	922	---
TOTAL	27110	35033	75967	47450	42614	114140	65200	74940	90170	44480	31913	32402
MEAN	875	1168	2451	1531	1469	3682	2173	2417	3006	1435	1029	1080
MAX	2700	5060	8590	2910	3240	13700	4740	8010	10100	2340	1660	3500
MIN	476	568	977	1030	794	1330	1330	1190	1000	866	642	569
CFSM	.46	.62	1.29	.81	.78	1.95	1.15	1.28	1.59	.76	.54	.57
IN.	.53	.69	1.49	.93	.84	2.24	1.28	1.47	1.77	.87	.63	.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1992, BY WATER YEAR (WY)

MEAN	1316	2265	3054	3254	3641	4671	4169	3160	2136	1641	1389	1397
MAX	4771	6272	9569	11400	8136	13320	11620	9943	11640	6434	7980	4863
(WY)	1956	1973	1984	1979	1939	1936	1983	1989	1972	1984	1933	1960
MIN	89.4	223	444	340	647	1552	1237	693	261	116	140	117
(WY)	1942	1932	1981	1981	1934	1981	1985	1965	1965	1966	1966	1932

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

WATER-DISCHARGE RECORDS--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1932 - 1992	
ANNUAL TOTAL	775857		681419			
ANNUAL MEAN	2126		1862		2669	
HIGHEST ANNUAL MEAN					4791	1984
LOWEST ANNUAL MEAN					1014	1965
HIGHEST DAILY MEAN	11300	Jan 12	13700	Mar 28	93400	Jun 23 1972
LOWEST DAILY MEAN	294	Sep 14	476	Oct 5	.60	Sep 2 1966
ANNUAL SEVEN-DAY MINIMUM	343	Sep 13	555	Oct 1	24	Sep 28 1941
INSTANTANEOUS PEAK FLOW			15100	Mar 28	103000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			8.36	Mar 28	14.65	Jun 23 1972
ANNUAL RUNOFF (CFSM)	1.12		.98		1.41	
ANNUAL RUNOFF (INCHES)	15.25		13.39		19.16	
10 PERCENT EXCEEDS	4740		3250		5770	
50 PERCENT EXCEEDS	1560		1410		1640	
90 PERCENT EXCEEDS	501		654		407	

e Estimated.

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ

LOCATION.--Lat 39°44'28", long 75°15'33", Gloucester County, Hydrologic Unit 02040202, on right bank 25 ft downstream from County Bridge No. 5-F-3 on Harrisonville-Gibbstown Road, 1.8 mi west of Mullica Hill, and 2.8 mi east of Swedesboro.

DRAINAGE AREA.--26.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1966 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is sea level. Prior to July 28, 1969, at datum 7.96 ft higher. July 28, 1969 to Sept. 30, 1969, at datum 5.96 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 3	2345	*202	*9.57	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	18	38	25	22	20	33	19	33	12	13	11
2	16	18	54	25	19	20	41	18	22	12	11	11
3	16	20	138	24	19	20	38	15	18	13	11	19
4	16	22	113	31	19	20	33	13	16	18	11	18
5	16	23	39	34	19	20	29	13	54	14	11	15
6	16	23	29	28	18	19	27	14	62	13	11	14
7	16	23	27	25	19	29	26	13	30	12	9.9	15
8	16	24	25	24	20	29	25	36	25	12	9.6	15
9	16	24	26	24	20	23	24	38	21	11	9.8	14
10	16	25	64	25	17	23	25	30	18	10	9.3	14
11	17	31	37	24	18	75	25	25	16	9.7	9.9	31
12	19	30	30	23	18	35	24	21	15	9.9	11	16
13	17	29	28	22	17	27	22	19	14	10	10	14
14	16	28	28	23	21	24	22	17	14	9.9	13	13
15	28	27	28	22	27	22	21	16	14	10	17	13
16	29	29	25	20	48	21	22	18	13	11	23	13
17	58	31	23	19	32	21	25	19	14	11	23	13
18	45	30	23	20	32	21	24	17	13	11	23	13
19	26	30	22	19	31	73	29	16	31	10	17	13
20	22	30	20	17	26	55	26	15	25	9.7	14	12
21	21	31	22	19	23	33	24	14	17	8.9	13	12
22	21	42	23	19	22	29	25	14	15	8.8	12	13
23	21	48	23	27	21	33	23	13	15	27	12	16
24	20	38	23	54	20	30	22	13	14	22	11	13
25	19	34	21	31	20	26	22	13	18	16	11	17
26	19	32	21	25	38	34	27	16	15	14	11	64
27	19	31	21	23	31	96	24	18	14	15	16	20
28	19	31	21	23	25	46	23	15	13	13	13	16
29	18	32	40	23	22	36	23	13	12	12	12	17
30	18	31	40	23	---	32	20	13	12	11	11	13
31	18	---	28	23	---	34	---	46	---	12	11	---
TOTAL	651	865	1100	764	684	1026	774	580	613	388.9	400.5	498
MEAN	21.0	28.8	35.5	24.6	23.6	33.1	25.8	18.7	20.4	12.5	12.9	16.6
MAX	58	48	138	54	48	96	41	46	62	27	23	64
MIN	16	18	20	17	17	19	20	13	12	8.8	9.3	11
CFSM	.78	1.07	1.32	.92	.88	1.23	.96	.70	.76	.47	.48	.62
IN.	.90	1.20	1.52	1.06	.95	1.42	1.07	.80	.85	.54	.55	.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

MEAN	29.1	35.6	44.5	50.5	49.4	51.0	52.0	43.2	36.0	32.8	30.8	26.0
MAX	65.2	93.9	107	123	115	88.5	134	72.6	77.7	112	121	71.9
(WY)	1990	1973	1973	1978	1979	1984	1983	1989	1975	1975	1967	1971
MIN	15.9	18.0	18.8	20.7	23.6	22.7	21.3	15.9	10.7	6.01	5.89	11.7
(WY)	1969	1975	1981	1981	1992	1981	1985	1977	1966	1966	1966	1968

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992		
ANNUAL TOTAL	12808		8344.4				
ANNUAL MEAN	35.1		22.8		40.3		
HIGHEST ANNUAL MEAN					64.7		1973
LOWEST ANNUAL MEAN					22.5		1981
HIGHEST DAILY MEAN	364	Jan 12	138	Dec 3	1260	Aug 28	1971
LOWEST DAILY MEAN	12	Aug 7	8.8	Jul 22	2.9	Jul 14	1966
ANNUAL SEVEN-DAY MINIMUM	13	Sep 8	9.9	Aug 7	3.3	Aug 25	1966
INSTANTANEOUS PEAK FLOW			202	Dec 3	3530	Aug 10	1967
INSTANTANEOUS PEAK STAGE			9.57	Dec 3	17.44a	Aug 10	1967
INSTANTANEOUS LOW FLOW			8.7	Jul 20	---		
ANNUAL RUNOFF (CFSM)	1.30		.85		1.50		
ANNUAL RUNOFF (INCHES)	17.71		11.54		20.36		
10 PERCENT EXCEEDS	59		33		66		
50 PERCENT EXCEEDS	28		20		29		
90 PERCENT EXCEEDS	15		12		14		

a Present datum.

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1966 to September 1973.
SUSPENDED-SEDIMENT DISCHARGE: June 1966 to September 1969.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
NOV 1991										
04...	1100	22	228	7.3	8.0	10.7	89	<1.0	130	80
FEB 1992										
04...	1130	18	215	7.5	3.0	13.5	101	E1.8	5400	160
APR										
23...	1200	24	206	7.5	17.0	11.1	114	E1.8	80	10
JUN										
08...	0915	23	179	6.8	20.0	6.8	75	<1.1	230	140
AUG										
03...	1030	11	217	7.8	20.5	7.9	88	E1.7	540	600

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 1991									
04...	71	22	4.0	11	4.2	50	31	19	0.3
FEB 1992									
04...	73	23	3.8	10	3.6	37	31	20	0.3
APR									
23...	65	20	3.6	9.3	3.6	33	28	18	0.2
JUN									
08...	63	18	4.4	5.8	4.0	27	22	16	0.2
AUG									
03...	73	23	3.7	7.1	3.6	46	23	16	0.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 1991									
04...	13	140	E0.014	E0.016	1.12	1.11	0.04	0.10	0.25
FEB 1992									
04...	9.9	132	0.022	0.021	1.78	1.77	0.13	0.15	0.33
APR									
23...	8.5	117	0.049	0.049	1.34	1.36	0.24	0.20	0.48
JUN									
08...	9.3	105	0.033	0.033	1.98	1.98	0.18	0.12	0.67
AUG									
03...	11	119	0.018	0.019	0.82	0.83	<0.03	0.04	0.26

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 1991									
04...	0.19	1.4	1.3	0.54	0.03	3.1	0.1	--	--
FEB 1992									
04...	0.26	2.1	2.0	0.09	0.04	2.1	0.3	2	0.10
APR									
23...	0.41	1.8	1.8	0.10	0.03	2.6	0.4	13	0.84
JUN									
08...	0.44	2.7	2.4	0.11	0.05	3.6	0.8	35	2.2
AUG									
03...	0.13	1.1	0.96	0.14	0.04	2.8	0.1	7	0.21

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 08...	0915	16	1	<10	40	<1	1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 08...	1500	1	70	0.10	7	<1	20

01477510 OLDMANS CREEK AT PORCHES MILL, NJ

LOCATION.--Lat 39°41'57", long 75°20'01", Salem County, Hydrologic Unit 02040206, at bridge on Kings Highway in Porches Mill, 150 ft downstream of tributary from outflow of lake at Porches Mill, 1.0 mi north of Seven Stars, and 2.1 mi southeast of Auburn.

DRAINAGE AREA.--21.0 mi^2.

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	ENTEROCOCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
24...	1200	14	224	7.4	14.0	9.6	92	E1.2	79	11
FEB 1992										
06...	1100	12	222	7.2	1.0	14.2	100	E2.4	20	20
APR										
16...	1230	15	187	7.7	11.0	11.1	100	<1.0	50	20
JUN										
02...	0945	16	196	6.7	17.0	7.7	79	E1.8	330	100
AUG										
03...	1215	6.6	230	8.1	22.5	12.1	140	3.5	33	80

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 1991									
24...	81	24	5.0	5.6	4.4	39	32	19	0.2
FEB 1992									
06...	83	25	5.1	6.0	3.6	31	34	22	0.3
APR									
16...	81	24	5.0	5.4	3.6	33	31	19	0.3
JUN									
02...	68	20	4.5	5.5	3.7	31	25	17	0.3
AUG									
03...	83	25	4.9	5.5	3.4	44	24	21	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
24...	12	134	0.008	0.008	1.45	1.50	0.14	0.09	0.23
FEB 1992									
06...	11	137	0.017	0.017	2.64	2.64	0.05	0.09	0.43
APR									
16...	4.8	120	--	--	1.61	1.66	0.04	0.04	0.29
JUN									
02...	9.4	110	0.036	0.034	1.32	1.32	0.05	0.05	0.70
AUG									
03...	9.6	124	0.017	0.018	0.93	0.91	<0.03	<0.03	0.40

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 1991									
24...	0.23	1.7	1.7	0.04	0.02	3.1	0.3	2	0.08
FEB 1992									
06...	0.19	3.1	2.8	0.05	<0.02	2.0	0.3	--	--
APR									
16...	0.17	1.9	1.8	0.03	<0.02	2.9	0.3	6	0.24
JUN									
02...	0.50	2.0	1.8	0.17	0.07	4.5	0.9	27	1.2
AUG									
03...	0.18	1.3	1.1	0.06	0.02	3.4	1.0	4	0.07

01477510 OLDMANS CREEK AT PORCHES MILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 1992 02...	0945	14	2	<10	<1	<1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUN 1992 02...	2400	1	150	<0.10	9	<1	10

01482500 SALEM RIVER AT WOODSTOWN, NJ

LOCATION.--Lat 39°38'36", long 75°19'52", Salem County, Hydrologic Unit 02040206, on right end of 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 mi^2.

PERIOD OF RECORD.--Water years 1973 to current year.

COOPERATION.--Analyses of fecal coliform by the MPN method, enterococcus bacteria by the membrane filtration method, water-phase nutrients, and BOD were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME,MF WATER TOTAL (COL / 100 ML)
OCT 1991										
24...	1000	15	249	7.3	14.5	9.4	91	3.7	1300	<200
FEB 1992										
10...	1100	5.9	265	7.3	1.5	14.7	102	2.3	<200	<10
APR										
13...	1130	5.9	250	7.8	13.0	10.8	101	2.9	20	<10
JUN										
04...	0830	7.2	232	6.7	21.5	6.3	71	3.9	490	<10
JUL										
27...	0845	7.2	244	7.5	23.5	7.5	89	6.8	800	40

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 1991									
24...	83	18	9.3	6.9	7.7	33	40	23	0.1
FEB 1992									
10...	91	20	9.9	8.7	4.4	26	45	26	0.2
APR									
13...	93	21	9.9	8.0	4.7	28	41	25	0.2
JUN									
04...	77	17	8.4	7.3	6.5	30	32	23	0.2
JUL									
27...	85	20	8.4	8.7	6.3	56	20	26	0.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 1991									
24...	7.6	142	0.047	0.044	1.82	2.07	0.13	0.21	1.6
FEB 1992									
10...	7.4	153	0.028	0.027	3.54	3.62	0.08	0.11	0.57
APR									
13...	6.6	142	0.038	0.038	2.03	2.02	0.05	0.05	0.99
JUN									
04...	4.3	125	0.092	0.089	1.91	1.88	0.32	0.36	1.4
JUL									
27...	7.0	131	0.012	0.004	0.12	0.12	0.06	0.07	1.8

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 1991									
24...	0.75	3.4	2.8	0.15	0.03	6.5	2.1	17	0.69
FEB 1992									
10...	0.35	4.1	4.0	0.07	<0.02	3.5	--	5	0.08
APR									
13...	0.42	3.0	2.4	0.14	<0.02	11	2.2	31	0.49
JUN									
04...	0.85	3.4	2.7	0.14	0.03	6.5	1.9	21	0.41
JUL									
27...	0.62	2.0	0.74	0.30	0.04	23	--	34	0.66

01482500 SALEM RIVER AT WOODSTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)
OCT 1991 24...	1000	--	1	1	6.4	290	170	<0.1	6.1	--	2
JUN 1992 04...	0830	29	--	--	--	--	--	--	--	2	--

DATE	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 1991 24...	--	--	--	<1	--	3	<5	--	3	--
JUN 1992 04...	<10	20	<1	--	<1	--	--	2	--	960

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 1991 24...	4500	--	10	--	74	--	<0.01	--	<10	--
JUN 1992 04...	--	3	--	120	--	<0.10	--	5	--	<1

DATE	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991 24...	<1	--	10	9	<1.0	<0.1	10	0.4	<0.1	0.3
JUN 1992 04...	--	<10	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1991 24...	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<0.1	<1.00	<10
JUN 1992 04...	--	--	--	--	--	--	--	--	--	--

RESERVOIRS IN DELAWARE RIVER BASIN

01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, NY, Hydrologic Unit 02040102, near release chamber at Downsville Dam on East Branch Delaware River, and 1.6 mi east of Downsville, NY. DRAINAGE AREA, 371 mi^2. PERIOD OF RECORD, September 1954 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Board of Water Supply, City of New York).
REMARKS.--Reservoir is formed by an earthfill rockfaced dam. Storage began Sept. 15, 1954. Usable capacity 140,190 mil gal between minimum operating level, elevation, 1,152.0 ft, and crest of spillway, elevation, 1,280.0 ft. Capacity, at crest of spillway 149,700 mil gal; at minimum operating level, 9,609 mil gal; at still of diversion tunnel, elevation, 1,143.0 ft, 6,098 mil gal; in dead storage below release outlet, elevation, 1,126.50 ft, 1,898 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through East Delaware Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin (see Delaware River Basin, diversions), for water supply to City of New York; for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Jan. 6, 1955.
COOPERATION.--Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 154,027 mil gal, Apr. 5, 1960, elevation, 1,282.27 ft; minimum observed (after first filling), 9,575 mil gal, Dec. 26, 1964, elevation, 1,151.92 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 133,485 mil gal, June 15, elevation, 1,270.86 ft; minimum observed, 60,628 mil gal, Nov. 22, elevation, 1,218.75 ft.

01424997 CANNONSVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, NY, Hydrologic Unit 02040101, in emergency gate tower at Cannonsville Dam on West Branch Delaware River, and 1.8 mi southeast of Stilesville, NY. DRAINAGE AREA, 454 mi^2. PERIOD OF RECORD, October 1963 to current year. REVISED RECORDS, WRD-NY 1972: 1966. GAGE, water-stage recorder. Datum of gage is sea level (levels by Board of Water Supply, City of New York).
REMARKS.--Reservoir is formed by an earthfill rockfaced dam; storage began Sept. 30, 1963, usable capacity 95,706 mil gal between minimum operating level, elevation, 1,040.0 ft and crest of spillway, elevation, 1,150.0 ft. Capacity, at crest of spillway, 98,618 mil gal; at minimum operating level, 2,912 mil gal; at mouth of inlet channel to diversion tunnel, elevation, 1,035.0 ft, 1,892 mil gal; in dead storage below release outlet elevation, 1,020.5 ft, 328 mil gal. Figures given herein represent total contents. Impounded water is diverted for New York City water supply via West Delaware Tunnel to Rondout Reservoir in Hudson River basin (see Delaware River Basin, diversion); is released in Delaware River for downstream low-flow augmentation as directed by Delaware River Master; and is released for conservation flow in the Delaware River. No diversion prior to Jan. 29. 1964.
COOPERATION.--Records provided by Bureau of Water Resources Development, City of New York.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 109,617 mil gal, Mar. 16, 1986, elevation, 1,156.73 ft; minimum observed (after first filling), 11,901 mil gal, Nov. 7, 1968, elevation, 1,066.24 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 92,183 mil gal, June 16, 17, elevation, 1,145.77 ft; minimum observed, 25,419 mil gal, Oct. 13, elevation, 1,089.58 ft.

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, PA, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi north of Prompton, PA, 0.4 mi upstream from highway bridge and 0.5 mi upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi^2. PERIOD OF RECORD, December 1960 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Corps of Engineers).
REMARKS.--Reservoir formed by an earth and rockfill dam with ungated bedrock spillway at elevation 1,205.00 ft; storage began July 1960. Capacity at elevation 1,205.00 ft is 51,700 acre-ft. Ordinary minimum (conservation) pool elevation, 1,125.00 ft capacity, 3,420 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel.
COOPERATION.--Records provided by U.S. Army Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,170 acre-ft, June 29, 1973, elevation, 1,138.40 ft; minimum (after first filling), 2,505 acre-ft, June 5, 1991, elevation, 1,121.46 ft.
EXTREMES FOR CURRENT YEAR.--Maximum content, 4,649 acre-ft, June 1, elevation, 1,129.27 ft; minimum, 2,890 acre-ft, Nov. 8, elevation, 1,122.81 ft.

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15,55", Wayne County, PA, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.45 mi upstream from unnamed tributary, 2.4 mi north of Honesdale, PA, and 2.9 mi upstream from mouth. DRAINAGE AREA, 64.5 mi^2. PERIOD OF RECORD, October 1959 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Corps of Engineers).
REMARKS.--Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation, 1,053.00 ft; storage began in October 1959. Capacity at elevation 1,053.00 ft is 24,500 acre-ft. Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel.
COOPERATION.--Records provided by U.S. Army Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 6,520 acre-ft, June 19, 1973, elevation 1,017.40 ft; no storage many times.
EXTREMES FOR CURRENT YEAR.--No storage entire year.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, PA, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek at Wilsonville, PA, 1.2 mi south of and 1.5 mi upstream from mouth. DRAINAGE AREA, 228 mi^2. PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is sea level (levels by Pennsylvania Power and Light Co.).
REMARKS.--Reservoir formed by concrete gravity-type and earthfill dam with concrete spillway at elevation 1,176.00 ft in two sections. Spillway equipped with roller gate, 14 ft high on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation 1,190.00 ft, top of gates, is 209,300 acre-ft of which 157,800 acre-ft is controlled storage above elevation 1,160.00 ft, minimum pool. Reservoir is used for generation of hydroelectric power. Figures given herein represent usable contents.
COOPERATION.--Records provided by Pennsylvania Power and Light Co.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 129,300 acre-ft, Aug. 19-21, 1955, elevation, 1,193.45 ft; minimum (after first filling), 12,280 acre-ft, Mar. 28, 1958, elevation, 1,162.60 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 95,260 acre-ft, May 25, elevation, 1,187.8 ft; minimum, 19,160 acre-ft, Oct. 21-26, elevation, 1,173.7 ft.

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'25", long 74°47'00", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Mongaup River, and 1.8 mi northwest of Fowlersville, NY. DRAINAGE AREA, 118 mi^2 excluding Cliff Lake, Lebanon Lake, and Toronto Reservoir. PERIOD OF RECORD, January 1930 to current year. REVISED RECORDS, WSP 1552: 1951-54. WDR NJ-86-2: 1985. GAGE, water-stage recorder. Datum of gage is sea level (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,010 ft.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft^3 between elevations 1,010.0 ft, minimum operating pool, and 1,071.2 ft, top of flashboards. Capacity below elevation 1,010.0 ft, minimum operating pool, about 212.7 mil ft^3. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft. Water is received from Cliff Lake, Lebanon Lake, and Toronto Reservoir.

COOPERATION.--Records provided by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,461.6 mil ft^3, Mar. 14, 1977, elevation, 1,071.8 ft; minimum (after first filling), -141.4 mil ft^3, Dec. 2, 1938, elevation, 987.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,383.3 mil ft^3, Apr. 3, elevation, 1,069.9 ft; minimum, 1,000.0 mil ft^3, Oct. 2, 4, 5, elevation, 1,059.7 ft.

01433100 TORONTO RESERVOIR.--Lat 41°37'15", long 74°49'55", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi southeast of village of Black Lake, NY. DRAINAGE AREA, 23.2 mi^2. PERIOD OF RECORD, January 1926 to current year. REVISED RECORDS, WSP 1552: 1951-54. WSP 1702: 1959(M). WDR NJ-85-2: 1984. WDR NJ-86-2: 1985. Nonrecording gage. Datum of gage is sea level (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,165.0 ft.

REMARKS.--Reservoir is formed by an earthfill dam completed July 24, 1926. Storage began Jan. 13, 1926. Usable capacity, 1,098.2 mil ft^3 between elevations 1,165.0 ft, minimum operating pool, and operating pool, about 26.8 mil ft^3. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft.

COOPERATION.--Records provided by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,171.2 mil ft^3, July 20, 1945, elevation, 1,222.0 ft. minimum observed (after first filling), -26.8 mil ft^3, Nov. 15, 1928, elevation, 1,144.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 719.8 mil ft^3, Aug. 19, 21, elevation, 1,207.8 ft; minimum observed, 191.9 mil ft^3, Nov. 20, elevation, 1,183.8 ft.

01433200 CLIFF LAKE.--Lat 41°35'00", long 74°47'40", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi northwest of Fowlersville, NY. DRAINAGE AREA, 6.46 mi^2 excluding area above Toronto Reservoir. PERIOD OF RECORD, January 1939 to current year. REVISED RECORDS, WSP 1552: 1951-54. WRD NY-75-1: 1974(m). WDR NJ-86-2: 1985. Nonrecording gage. Datum of gage is sea level (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,043.3 ft.

REMARKS.--Reservoir is formed by a concrete gravity-type dam. Storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft^3 between elevations 1,043.3 ft, minimum operating pool, and 1,072.0 ft, top of permanent flashboards. Capacity below elevation 1,043.3 ft, minimum operating pool, about 6.54 mil ft^3. Reservoir is used for storage of water for power. Water is received from Toronto and Lebanon Lake reservoirs and is discharged through a tunnel into Swinging Bridge Reservoir. Figures given herein represent contents above 1,043.3 ft.

COOPERATION.--Records provided by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 145.44 mil ft^3, July 30, 31, 1945, elevation, 1,073.1 ft; minimum observed (after first filling), about -6.54 mil ft^3, Mar. 16, 1963, elevation, 1,038.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 118.88 mil ft^3, Apr. 3, elevation, 1,069.9 ft; minimum observed, 51.92 mil ft^3, Oct. 15, elevation, 1,059.6 ft.

01435900 NEVERSINK RESERVOIR.--Lat 41°49'40", long 74°38'21", Sullivan County, NY, Hydrologic Unit 02040104, at a gate-house at Neversink Dam on Neversink River, and 2 mi southwest of Neversink, NY. DRAINAGE AREA, 91.8 mi^2. PERIOD OF RECORD, June 1953 to current year. Nonrecording gage read daily at 0900. Datum of gage is sea level (levels by Board of Water Supply, City of New York).

REMARKS.--Reservoir is formed by an earthfill rockfaced dam. Storage began June 2, 1953. Usable capacity 34,941 mil gal between minimum operating level, elevation, 1,319.0 ft and crest of spillway, elevation, 1,440.0 ft. Capacity at crest of spillway, 37,146 mil gal; at minimum operating level, 2,205 mil gal; dead storage belowand outlet sill at elevation 1,314.0 ft, 1,680 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through Neversink-Grahamsville Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin, for water supply of City of New York (see Delaware River basin, diversions); for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Dec. 3, 1953.

COOPERATION.--Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 37,978 mil gal, Apr. 25, 1961, elevation, 1,441.67 ft; minimum observed (after first filling), 1,985 mil gal, Nov. 25, 1964, elevation, 1,316.98 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 35,603 mil gal, June 12, elevation, 1,436.84 ft; minimum observed, 6,856 mil gal, Nov. 22, elevation, 1,349.77 ft.

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, PA, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft downstream from Bear Creek and 5 mi northwest of White Haven, PA. DRAINAGE AREA, 289 mi^2. PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Corps of Engineers).

REMARKS.--Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft; storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft is 110,700 acre-ft of which 108,700 acre-ft is controlled storage above elevation 1,300.0 ft or (conservation pool). Dead storage is 2,000 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow regulated by three gates and low flow by-pass system.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 62,100 acre-ft, Sept. 28, 1985, elevation, 1,417.08 ft; minimum (after establishment of conservation pool), 980 acre-ft, July 6, 1982, elevation, 1,287.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 9,850 acre-ft, Nov. 25, 26, elevation, 1,343.83 ft; minimum, 1,601 acre-ft, Apr. 28, elevation, 1,296.13 ft.

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, PA, 0.7 mi upstream from Hatchery, 2.6 mi upstream from Wild Creek Dam, 4.4 mi upstream from mouth, and 10 mi northeast of Palmerton, PA. DRAINAGE AREA, 16.5 mi^2. PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by city of Bethlehem).
REMARKS.--Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation 1,000.00 ft; storage began in October 1958. Capacity at elevation 1,000.00 ft is 19,980 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.
COOPERATION.--Records provided by city of Bethlehem.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 20,800 acre-ft, Apr. 16, 1983, elevation, 1,001.69 ft; minimum, 176 acre-ft, Oct. 6, 1965, elevation, 902.40 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 19,280 acre-ft, June 21, elevation, 998.52 ft; minimum, 9,773 acre-ft, Feb. 19, 20, 24, elevation, 973.13 ft.

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, PA, 1.6 mi upstream from mouth, 2.4 mi south of Hatchery, and 7.5 mi northeast of Palmerton, PA. DRAINAGE AREA, 22.2 mi^2. PERIOD OF RECORD, January 1941 to current year. Nonrecording gage. Datum of gage is sea level (levels by city of Bethlehem).
REMARKS.--Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 820.00 ft; storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft is 12,500 acre-ft of which 12,000 acre-ft is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is accomplished by valves on pipe through dam. Since October 1969 the basin upstream has received diversion from Tunkhannock Creek basin.
COOPERATION.--Records provided by City of Bethlehem.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 12,880 acre-ft, May 23, 1942, elevation, 822.93 ft; minimum (after first filling), 2,680 acre-ft, Nov. 15, 1966, elevation, 774.10 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 11,680 acre-ft, Dec. 3, elevation, 818.55 ft; minimum, 10,860 acre-ft, May 25, elevation, 815.56 ft.

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, PA, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.45 mi upstream from gaging station on Pohopoco Creek, 0.55 mi upstream from Sawmill Run and 2.3 mi northeast of Parryville, PA. DRAINAGE AREA, 96.3 mi^2. PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Corps of Engineers).
REMARKS.--Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation 651.00 ft; storage began Feb. 8, 1971. Capacity at elevation 651.00 ft is 68,300 acre-ft. Ordinary minimum (conservation) pool elevation, 628.00 ft, capacity, 41,250 acre-ft. Dead storage is 1,390 acre-ft. Reservoir is used for recreation, flood control, low flow augmentation and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system and two flood-control gates.
COOPERATION.--Records provided by Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents 49,730 acre-ft, Jan. 29, 1976, elevation, 636.30 ft; minimum, 15,110 acre-ft, Mar. 31, 1983 elevation, 588.79
EXTREMES FOR CURRENT YEAR.--Maximum contents 42,500 acre-ft, June 1, elevation, 629.26 ft; minimum, 33,380 acre-ft, Oct. 15, elevation, 618.93 ft.

01455221 MERRILL CREEK RESERVOIR.--Lat 40°43'42", long 75°06'11", Warren County, Hydrologic Unit 02040105, at dam on Merrill Creek in Harmony Township, 4.5 mi northeast of Phillipsburg, and 2.8 mi upstream from mouth. DRAINAGE AREA, 3.13 mi^2. PERIOD OF RECORD, March 1988 to current year. GAGE, measurement from reference point. Datum of gage is sea level.
REMARKS.--Reservoir formed by zoned, compacted, earth-rockfill dam constructed in November 1987. Storage began March 1988. Total capacity at spillway elevation, 16,617,000,000 gal, elevation 929.0 ft. Useable capacity, 15,6654,000,000 gal. Reservoir used for storage of water pumped from the Delaware River through a 57-inch diameter pipe 17,000 ft long. Releases are made into the Delaware River through the same pipe. Reservoir is used to augment low flow in the Delaware River. Conservation release of 3 ft^3/s made to Merrill Creek.
COOPERATION.--Records provided by the Merrill Creek Reservoir Project.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 16,710,000,000 gal, Jan. 15, 1990, elevation, 923.3 ft; minimum (after first filling), 14,076,000,000 gal, Jan. 23, 1992, elevation 910.40 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 16,318,000,000 gal, June 7, elevation 921.47 ft; minimum, 14,076,000,000 gal, Jan. 23, elevation 910.40 ft.

01455400 LAKE HOPATCONG.--Lat 40°55'00", long 74°39'50", Morris County, Hydrologic Unit 02040105, in gatehouse of Lake Hopatcong Dam on Musconetcong River at Landing. DRAINAGE AREA, 25.3 mi^2. PERIOD OF RECORD, February 1887 to current year. Monthend contents only prior to October 1950, published in WSP 1302. REVISED RECORDS, WDR NJ-82-2: Drainage area; WDR NJ-83-2: Corrections 1981 (m/m). GAGE, staff gage. Prior to June 24, 1928, daily readings obtained by measuring from high-water mark to water surface converted to gage height, present datum. Datum of gage is 914.57 ft sea level.
REMARKS.--Lake is formed by concrete spillway and earthfill dam completed about 1828. Crest of spillway was lowered 0.11 ft in 1925. Usable capacity, 7,459,000,000 gal between (gage height -2.6 ft, sills of gates and 9.00 ft, crest of spillway). Flow regulated by four gates (3 by 5 ft, also by one 24-inch pipe with gate valve to recreation fountain 250 ft downstream from dam. Dead storage, about 8,117,000,000 gal. Figures given herein represent usable capacity. Lake used for recreation. CORRECTIONS.--Once-daily staff readings furnished by New Jersey Department of Environmental Protection.
COOPERATION.--Records provided by New Jersey Department of Environmental Protection and Energy.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,777,000,000 gal, August 19, 1955, gage height, 10.55 ft; minimum, 1,525,000,000 gal, Dec. 29, 1960, gage height, 0.65 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,100,000,000 gal, June 7, gage height, 9.76 ft; minimum, 5,709,000,000 gal, Feb. 12-14, gage height, 6.84 ft.

01459350 NOCKAMIXON RESERVOIR.--Lat 40°28'13", long 75°11'10", Bucks County, PA, Hydrologic Unit 02040105, at dam on Tohickon Creek, 6.2 mi upstream from gaging station on Tohickon Creek, 2.9 mi upstream from Mink Run and 1.3 mi east of Ottsville. DRAINAGE AREA, 73.3 mi^2. PERIOD OF RECORD, December 1973 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Pennsylvania Department of Environmental Resources).
REMARKS.--Reservoir formed by earthfill dam with concrete spillway at elevation 395.0 ft. Storage began Decmeber 1973. Total capacity 66,500 acre-ft at elevation 410 ft. Reservoir is used primarily for recreation, but can be used for water supply and flood control.
COOPERATION.--Records provided by Pennsylvania Department of Environmental Resources.
EXTRMES FOR PERIOD OF RECORD.--Maximum contents, 44,380 acre-ft, Jan. 20, 1979, elevation 397.85 ft; minimum (after first filling) 15,900 acre-ft, around Dec. 31, 1975, elevation 372.78 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 40,410 acre-ft, May 31, Sept. 29, elevation 395.15 ft; minimum, 38,590 acre-ft, Oct. 3, elevation 393.85 ft.

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30". Schuylkill County, PA, Hydrologic Unit 02040106, at dam on Still Creek, 1 mi upstream from mouth and 2.3 mi north of Hometown, PA. DRAINAGE AREA, 8.5 mi^2. PERIOD OF RECORD, January 1933 to current year. Nonrecording gage. Datum of gage is sea level (levels by Panther Valley Water Co.).

REMARKS.--Reservoir formed by earth fill dam, with ungated concrete spillway at elevation 1,182.00 ft; storage began in February 1933. Capacity at elevation, 1,182.00 ft is 8,290 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam.

COOPERATION.--Records provided by Borough of Tamaqua.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,570 acre-ft, Oct. 15, 1955, elevation, 1,182.92 ft, but may have been greater during 1950 and 1951 water years; minimum (after initial filling), 588 acre-ft, Dec. 8, 1944, elevation, 1,136.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,286 acre-ft, many days May, June, July, elevation, 1,182.0 ft; minimum, 5,763 acre-ft, Feb. 15, elevation, 1,173.0 ft.

01470870 BLUE MARSH LAKE.--Lat 40°22'45", long 76°01'59", Berks County, PA, Hydrologic Unit 02040203, at dam on Tulpehocken Creek, 0.8 mi upstream from gaging station on Tulpehocken Creek, 1.0 mi northeast of Blue Marsh, PA, 1.9 mi upstream from Reber's Bridge, and 5.1 mi southeast of Bernville, PA. DRAINAGE AREA, 175 mi^2. PERIOD OF RECORD, April 1979 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Corps of Engineers).

REMARKS.--Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 307.00 ft. Storage began April 23, 1979. Capacity at elevation, 307.00 ft is 50,000 acre-ft. Dead storage is 3,000 acre-ft. Reservoir is used for flood control, water supply, and recreation. Figures herein represent total contents.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 39,480 acre-ft, Apr. 17, 1983, elevation, 301.65 ft; minimum, 15,770 acre-ft, Mar. 21, 1986 elevation, 283.00 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 29,940 acre-ft, Mar. 2, elevation, 295.57 ft; minimum, 15,530 acre-ft, Jan. 27, elevation, 282.74 ft.

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, PA, Hydrologic Unit 02040203, at dam on Perkiomen Creek at Green Lane, PA, 0.4 mi west of Green Lane and 2.1 mi upstream from Unami Creek. DRAINAGE AREA, 70.9 mi^2. PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Philadelphia Suburban Water Co.).

REMARKS.--Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft; storage began December 21, 1956. Capacity at spillway level, elevation 286.00 ft, 13,430 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam.

COOPERATION.--Records provided by Philadelphia Suburban Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 17,030 acre-ft, June 23, 1972, elevation, 290.05 ft; minimum (after first filling), 1,270 acre-ft, Aug. 25, 1957, elevation, 251.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 13,900 acre-ft, Mar. 27, elevation, 286.54 ft; minimum, 11,100 acre-ft, Nov. 21, elevation, 283.09 ft.

01480684 MARSH CREEK RESERVOIR.--Lat 40°03'24", long 75°43'06", Chester County, PA, Hydrologic Unit 02040205, on right bank at dam on Marsh Creek, 0.3 mi upstream from mouth and 3.2 mi north of Downingtown. DRAINAGE AREA, 20.1 mi^2. PERIOD OF RECORD, November 1973 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Pennsylvania Department of Environmental Resources).

Reservoir formed by earthfill dam with concrete spillway at elevation 359.5 ft. Storage began November 1973. Total capacity 22,190 acre-ft at elevation 373 ft. Reservoir is used for water supply, flood control, and recreation. Figures given herein represent contents above lowest gate sill at elevation 289.5 ft. Records provided by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 16,380 acre-ft Jan. 25, 1979, elevation, 363.49 ft; minimum (after first filling), 10,410 acre-ft Mar. 3, 1976, elevation, 351.75 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 14,889 acre-ft, June 6, elevation, 360.78 ft; minimum, 13,160 acre-ft, Nov. 14, elevation, 357.50 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)*	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)*	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01416900 PEPACTON RESERVOIR			01424997 CANNONSVILLE RESERVOIR			01428900 PROMPTON RESERVOIR		
Sept. 30...	1,238.02	83,549	--	1,090.27	27,521	--	1,123.06	2,956	--
Oct. 31...	1,228.54	71,745	-589	1,091.41	28,491	+48.4	1,122.94	2,922	-0.6
Nov. 30...	1,227.47	70,482	-65.1	1,107.11	43,352	+766	1,124.81	3,445	+8.8
Dec. 31...	1,231.82	75,702	+261	1,122.13	60,384	+850	1,125.08	3,521	+1.2
CAL YR 1991			+65.2			+116			-2.6
Jan. 31...	1,239.46	85,446	+486	1,123.24	61,739	+67.6	1,124.96	3,488	-.5
Feb. 29...	1,242.03	88,900	+184	1,120.08	57,881	-206	1,125.65	3,679	+3.3
Mar. 31...	1,250.29	100,576	+583	1,127.62	67,225	+466	1,126.07	3,799	+2.0
Apr. 30...	1,264.14	122,156	+1,113	1,140.46	84,451	+888	1,125.61	3,668	-2.2
May 31...	1,266.51	126,087	+196	1,143.07	88,223	+188	1,128.35	4,436	+12.5
June 30...	1,268.27	129,053	+153	1,144.69	90,564	+121	1,123.95	3,205	-20.7
July 31...	1,261.94	118,568	-523	1,135.72	77,873	-633	1,124.55	3,371	+2.7
Aug. 31...	1,256.78	110,385	-408	1,126.20	65,417	-622	1,123.97	3,211	-2.6
Sept. 30...	1,249.20	98,983	-588	1,117.48	54,843	-545	1,124.12	3,252	+.7
WTR YR 1992			+65.2			+116			+.4

α For records prior to 1990 see WDR-PA-89-1 and earlier years.

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (million ft³)	Change in contents (equivalent in ft³/s)
	01429400 GENERAL EDGAR JADWIN RESERVOIR			01431700 LAKE WALLENPAUPACK			01433000 SWINGING BRIDGE RESERVOIR		
Sept. 30...	965.28	0	--	1,177.4	36,430	--	1,059.8	1,003.4	--
Oct. 31...	965.31	0	0	1,173.8	19,680	-272	1,061.8	1,073.8	+26.3
Nov. 30...	965.58	0	0	1,175.9	29,430	+164	1,066.9	1,229.3	+73.4
Dec. 31...	966.70	0	0	1,179.7	50,490	+342	1,066.0	1,229.3	-13.0
CAL YR 1991			0			-19.4			-1.8
Jan. 31...	966.24	0	0	1,179.7	50,490	0	1,061.4	1,059.5	-63.4
Feb. 29...	969.98	0	0	1,176.1	30,280	-351	1,062.1	1,084.5	+10.0
Mar. 31...	970.07	0	0	1,180.2	53,600	+379	1,065.6	1,214.1	+48.4
Apr. 30...	968.82	0	0	1,184.5	77,000	+393	1,067.3	1,279.7	+25.3
May 31...	975.12	0	0	1,187.2	91,840	+241	1,064.7	1,180.1	-37.2
June 30...	965.60	0	0	1,185.2	81,290	-177	1,065.0	1,191.3	+4.3
July 31...	967.43	0	0	1,181.8	61,340	-324	1,065.0	1,191.3	0
Aug. 31...	965.49	0	0	1,180.8	56,380	-80.6	1,063.4	1,131.8	-22.2
Sept. 30...	965.51	0	0	1,179.1	46,370	-168	1,064.3	1,165.1	+12.8
WTR YR 1992			0			+13.7			+5.1

Date	Elevation (feet)†	Contents (million ft³)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (million ft³)	Change in contents (equivalent in ft³/s)	Elevation (feet)*	Contents (million gallons)	Change in contents (equivalent in ft³/s)
	01433100 TORONTO RESERVOIR			01433200 CLIFF LAKE			01435900 NEVERSINK RESERVOIR		
Sept. 30...	1,186.2	231.4	--	1,060.0	53.96	--	1,366.78	10,576	--
Oct. 31...	1,185.0	211.4	-7.5	1,061.9	64.49	+3.9	1,357.81	8,517	-103
Nov. 30...	1,185.6	221.4	+3.9	1,066.9	96.47	+12.3	1,362.04	9,459	+48.6
Dec. 31...	1,190.0	298.5	+28.8	1,066.0	90.26	-2.3	1,371.50	11,751	+114
CAL YR 1991			-8.2			-0.3			-104
Jan. 31...	1,191.8	333.1	+12.9	1,061.6	62.78	-10.3	1,386.35	15,882	+206
Feb. 29...	1,192.3	343.1	+4.0	1,062.3	66.86	+1.6	1,393.38	18,098	+118
Mar. 31...	1,196.2	426.7	+31.2	1,065.5	86.96	+7.5	1,413.05	25,213	+355
Apr. 30...	1,202.3	574.2	+56.9	1,068.5	108.11	+8.2	1,426.38	30,779	+287
May 31...	1,203.9	615.6	+15.5	1,064.8	82.38	-9.6	1,428.29	31,628	+42.4
June 30...	1,206.6	687.2	+27.6	1,064.7	81.74	-0.2	1,432.80	33,690	+106
July 31...	1,207.0	698.0	+4.0	1,065.0	83.66	+0.7	1,425.16	30,245	-172
Aug. 31...	1,207.6	714.3	+6.1	1,063.4	73.54	-3.8	1,418.05	27,232	-150
Sept. 30...	1,199.9	513.9	-77.3	1,064.2	78.54	+1.9	1,409.34	23,770	-179
WTR YR 1992			+8.9			+0.8			+55.8

Date	Elevation (feet)*	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft³/s)
	01447780 FRANCIS E. WALTER LAKE			01449400 PENN FOREST RESERVOIR			01449700 WILD CREEK RESERVOIR		
Sept. 30...	1,302.33	2,220	--	984.58	13,560	--	817.80	11,470	--
Oct. 31...	1,299.12	1,900	-5.2	979.12	11,660	-30.9	818.09	11,550	+1.3
Nov. 30...	1,323.67	5,130	+54.3	975.33	10,440	-20.5	818.13	11,560	+.2
Dec. 31...	1,306.09	2,620	-40.8	974.54	10,200	-3.9	818.04	11,540	-.3
CAL YR 1991			-.3			-13.8			-.8
Jan. 31...	1,302.13	2,200	-6.8	974.20	10,090	-1.8	817.96	11,520	-.3
Feb. 29...	1,308.01	2,840	+11.1	973.48	9,876	-3.7	818.08	11,550	+.5
Mar. 31...	1,301.73	2,160	-11.1	981.04	12,310	+39.6	817.46	11,380	-2.8
Apr. 30...	1,301.22	2,110	-.8	988.15	14,900	+43.5	816.16	11,020	-6.0
May 31...	1,318.82	4,320	+36.0	992.50	16,650	+28.5	816.00	10,980	-.7
June 30...	1,304.61	2,470	-31.1	997.58	18,860	+37.1	817.30	11,330	+5.9
July 31...	1,301.55	2,150	-5.2	995.88	18,110	-12.2	817.76	11,460	+2.1
Aug. 31...	1,302.16	2,210	+1.0	992.77	16,770	-21.8	817.92	11,510	+.8
Sept. 30...	1,307.70	2,800	+9.9	989.63	15,490	-21.5	818.04	11,540	+.5
WTR YR 1992			+.8			+2.7			+.1

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)
	01449790 BELTZVILLE LAKE			01455221 MERRILL CREEK RESERVOIR			01455400 LAKE HOPATCONG		
Sept. 30...	619.55	33,840	--	919.31	15,880	--	7.90	6,555	--
Oct. 31...	619.58	33,880	+.07	919.31	15,880	0	7.82	6,490	-3.2
Nov. 30...	621.75	35,690	+30.4	916.21	15,246	-32.7	7.76	6,442	-2.5
Dec. 31...	626.73	40,090	+71.5	910.64	14,124	-56.0	6.90	5,756	-34.2
CAL YR 1991			-1.1			-10.2			+.3
Jan. 31...	628.13	41,400	+21.3	910.59	14,114	-.5	7.08	5,897	+7.0
Feb. 29...	627.89	41,200	-3.5	910.50	14,096	-1.0	7.18	5,977	+4.3
Mar. 30...	628.03	41,330	+2.1	921.23	16,268	+108	8.58	7,111	+56.6
Apr. 30...	628.13	41,420	+1.5	921.34	16,291	+1.2	9.19	7,619	+26.2
May 31...	628.93	42,180	+12.4	921.33	16,289	-.1	9.14	7,577	-2.1
June 30...	627.82	41,130	-17.6	921.27	16,276	-.7	9.22	7,644	+3.4
July 31...	627.99	41,290	+2.6	921.13	16,247	-1.4	9.08	7,526	-5.9
Aug. 31...	627.78	41,090	-3.3	921.03	16,226	-1.0	8.90	7,376	-7.5
Sept. 30...	627.45	40,780	-5.2	920.48	16,110	-6.0	7.22	6,009	-70.5
WTR YR 1992			+9.6			+1.0			-2.3

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft³/s)
	01459350 NOCKAMIXON RESERVOIR			01469200 STILL CREEK RESERVOIR			01470870 BLUE MARSH LAKE		
Sept. 30...	394.80	39,920	--	1,176.5	6,732	--	290.06	22,970	--
Oct. 31...	394.75	39,850	-1.1	1,174.5	6,179	-9.0	290.01	22,910	-1.0
Nov. 30...	394.90	40,060	+3.5	1,173.6	5,931	-4.2	289.93	22,820	-1.5
Dec. 31...	394.95	40,130	+1.1	1,173.6	5,931	0	284.83	17,460	-87.1
CAL YR 1991			-1.7			-3.3			-.5
Jan. 31...	395.00	40,200	+1.1	1,173.3	5,847	-1.4	283.20	15,940	-24.7
Feb. 29...	295.05	40,270	+1.2	1,173.3	5,847	0	282.87	15,650	-5.0
Mar. 31...	395.10	40,340	+1.1	1,178.5	7,285	+23.4	282.95	15,720	+1.1
Apr. 30...	395.10	40,340	0	1,180.8	7,932	+10.9	289.98	22,870	+120
May 31...	395.15	40,410	+1.1	1,182.0	8,286	+5.8	291.11	24,190	+21.5
June 30...	394.95	40,130	-4.7	1,182.0	8,286	0	290.03	22,930	-21.2
July 31...	395.10	40,340	+3.4	1,181.9	8,256	-.5	289.90	22,780	-2.4
Aug. 31...	394.90	40,060	-4.6	1,180.8	7,932	-5.3	290.13	23,050	+4.4
Sept. 30...	395.15	40,410	+5.9	1,180.3	7,788	-2.4	289.46	22,280	-12.9
WTR YR 1992			+.7			+1.5			+.9

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft³/s)
	01472200 GREEN LANE RESERVOIR			01480684 MARSH CREEK RESERVOIR		
Sept. 30...	284.50	12,140	--	359.60	14,240	--
Oct. 31...	284.04	11,780	-5.9	359.25	14,048	-3.1
Nov. 30...	284.68	12,290	+8.6	359.45	14,158	+1.8
Dec. 31...	286.00	13,430	+18.5	357.80	13,310	-13.8
CAL YR 1991			-.6			-1.7
Jan. 31...	285.93	13,370	-1.0	357.67	13,245	-1.1
Feb. 29...	286.04	13,470	+1.7	357.75	13,285	+.7
Mar. 31...	286.06	13,480	+.2	360.05	14,488	+19.6
Apr. 30...	285.92	13,360	-2.0	360.13	14,532	+.7
May 31...	286.04	13,470	+1.8	360.30	14,625	+1.5
June 30...	285.86	13,310	-2.7	359.90	14,405	-3.7
July 31...	285.94	13,380	+1.1	359.87	14,388	-.3
Aug. 31...	285.84	13,290	-1.5	359.66	14,273	-1.9
Sept. 30...	285.94	13,380	+1.5	359.88	14,394	+2.0
WTR YR 1992			+1.7			+.2

* Elevation at 0900 hours on first day of following month.
† Elevation or gage height at 2400 hours.

DIVERSIONS AND WITHDRAWALS

WITHDRAWALS FROM THE DELAWARE RIVER BASIN

01415200 Diversion from Pepacton Reservoir, NY, on East Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Jan. 6, 1955. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.
REVISED RECORDS.--WRD NY-71: 1970. WRD NJ-72: 1970. WRD NJ-82-2: 1980. WRD NY-81-1: 1980.

01423900 Diversion from Cannonsville Reservoir, NY, on West Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Jan. 29, 1964. Records provided by Board of Water Supply, City of New York.
REVISED RECORDS.--WDR NJ-82-2: 1980. WDR NY-81-1: 1980.

01435800 Diversion from Neversink Reservoir, NY, on Neversink River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Dec. 3, 1953. Records furnished by Board of Water Supply and Department of Water Resources, city of New York.
REVISED RECORDS.--WDR NJ-82-2: 1976, 1977. WDR NY-82-1: 1976, 1977.

01436520 Village of Woodridge, NY, diverts water from East Pond Reservoir, tributary to Neversink River, for municipal supply outside of basin. Village of Woodridge has estimated that this year virtually all the withdrawal from East Pond Reservoir was returned to the Neversink River.

01437360 Diversion from Bear Swamp Reservoir, NY, tributary to Neversink River, by the New York State Training School, Otisville, NY, for water supply outside of basin. Records provided by Delaware River Basin Commission.

01447750 Diversion from Bear Creek, PA, tributary to Lehigh River, by Bear Creek Gas and Water Company for water supply outside of basin. Records provided by Delaware River Basin Commission. Data for this year is not available but, from past records, monthly withdrawal is approximately 0.5 ft^3/s.

01448830 Diversion from Hazle Creek Watershed by Hazelton Joint Sewerage Authority for municipal water supply. Waste effluent from the municipal water system is released to the Susquehanna River. Records provided by Delaware River Basin Commission.

01460440 Diversion by Delaware and Raritan Canal from Delaware River at Raven Rock, for municipal and industrial use. Water is discharged into the Raritan River at New Brunswick. Records of discharge are collected on the Delaware and Raritan Canal at Port Mercer since Aug. 1, 1990 (see station 01460440).

WITHDRAWALS BY CITY OF NEW YORK

DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Month	01415200 PEPACTON RESERVOIR	01423900 CANNONSVILLE RESERVOIR	01435800 NEVERSINK RESERVOIR
October	672	39.2	204
November	701	0	149
December	624	155	118
CAL YR 1991	662	182	240
January	158	620	0
February	204	736	0
March	311	743	0
April	345	606	89.8
May	469	518	187
June	371	34.4	205
July	609	428	236
August	476	459	224
September	660	230	230
WTR YR 1992	467	381	137

MISCELLANEOUS WITHDRAWALS FROM BASIN, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	01437360 BEAR SWAMP RESERVOIR	01447750 BEAR CREEK	01448830 HAZLE CREEK	01460440 DELAWARE & RARITAN CANAL
October	.25	0	--	115
November	.27	0	--	107
December	.24	9.19	5.68*	103
CAL YR 1991	.33	.77	5.61	133
January	.30	4.71	--	103
February	.35	.62	--	99.5
March	.29	12.6	4.78*	91.4
April	.29	7.91	--	95.8
May	.31	0	--	133
June	.30	0	5.35*	135
July	.29	0	--	154
August	.31	0	--	152
September	.34	0	5.56*	155
WTR YR 1992	.30	2.92	5.34	120

* Average diversion for the quarter ending this month.

DIVERSIONS WITHIN THE DELAWARE RIVER BASIN

01446572 Diversion from Delaware River at Brainards to Merrill Creek Reservoir for storage to augment low flow in the Delaware River. There is a conservation release of 3 ft^3/s to lower Merrill Creek, which eventually reaches the Delaware River. Releases other than the conservation release are designated by a minus (-) sign. Records provided by Merrill Creek Reservoir Project.

01459005 Diversion from the Delaware River at Point Pleasant, PA by Philadelphia Electric Company to Bradshaw Reservoir on the East Branch Perkiomen Creek, tributary to Schuylkill River, to supplement flow to Limerick Power Station. Diversion began August 1989. Records provided by the Delaware River Basin Commission.

01463480 Diversion from the Delaware River at the Morrisville Filtration Plant, by the Borough of Morrisville, PA for municipal supply. The water withdrawn at this site is returned to the basin after treatment, only slightly diminished by consumptive uses and losses in transmission. Records provided by the Borough of Morrisville, PA.

01463490 Diversion from the Delaware River just above the Trenton gaging station by the city of Trenton, NJ for municipal supply. The water being withdrawn is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records provided by the City of Trenton.
REVISED RECORDS.--WDR NJ-82-2: Station number.

01467030 Diversion from the Delaware River at the Torresdale Intake, by the City of Philadelphia, PA for municipal supply. The water being withdrawn at this intake is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records provided by the Delaware River Basin Commission.

01474500 Diversion from the Schuylkill River at the Belmont and Queen Lanes Intakes, by the City of Philadelphia, PA for municipal supply. The water being withdrawn at these intakes is returned after treatment within the Delaware River basin only slightly diminished by consumptive uses and losses in transmission. Records provided by the Delaware River Basin Commission.

WITHDRAWALS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Month	01446572 MERRILL CREEK RESERVOIR	01459005 POINT PLEASANT	01463480 BOROUGH OF MORRISVILLE	01463490 CITY OF TRENTON
October	-27.2	57.6	3.36	54.5
November	-55.4	59.1	3.64	54.0
December	0	43.8	4.31	46.2
CAL YR 1991	-.35	40.0	3.47	53.2
January	.3	19.9	5.12	43.1
February	118	11.7	5.42	43.2
March	0	10.8	3.51	42.3
April	0	16.2	3.62	44.0
May	0	35.4	3.54	46.1
June	0	32.0	3.56	50.1
July	-.1	51.0	3.64	53.1
August	0	61.7	3.69	51.2
September	0	58.5	3.56	50.5
WTR YR 1992	.15	38.1	3.91	48.2

WITHDRAWALS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992--Continued

	CITY OF PHILADELPHIA		
Month	01467030 DELAWARE RIVER TORRESDALE	01474500 SCHUYLKILL RIVER BELMONT	QUEEN LANE
October	318	95.1	144
November	310	93.3	142
December	300	96.1	138
CAL YR 1991	320	97.1	159
January	296	98.9	154
February	309	99.7	157
March	306	95.1	150
April	311	96.9	143
May	311	98.2	149
June	314	100	157
July	324	109	172
August	308	107	167
September	292	104	161
WTR YR 1992	308	99.4	153

DIVERSIONS AND WITHDRAWALS--Continued

DIVERSIONS IMPORTED INTO BASIN

01367630 Water diverted from Morris Lake, tributary to the Wallkill River (Hudson River basin), by the Newton Water and Sewer Authority for municipal use. After use the water is released into the Paulins Kill (Delaware River basin). Records provided by the Delaware River Basin Commission.

01578420 Water diverted from West Branch Octoraro Creek (Susquehanna River basin) at the McCray Plant of the Coatesville Water Authority (formerly Octoraro Water Co.) for municipal use. After use the water is released into the Delaware River basin. Records provided by the Delaware River Basin Commission.

01578450 Water divered from Octoraro Lake (Susquehanna River basin) by Chester Water Authority for municipal use. After use the water is released into the Delaware River basin. Records provided by the Delaware River Basin Commission.

DIVERSIONS IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	01367630 MORRIS LAKE	OCTORARO CREEK	
		01578420 COATESVILLE WATER AUTHORITY	01578450 CHESTER WATER AUTHORITY
October	1.58	1.40	34.1
November	1.50	1.31	34.5
December	1.16	.90	32.9
CAL YR 1991	1.59	1.34	45.4
January	1.45	.43	33.4
February	1.47	0	31.5
March	1.41	0	28.9
April	1.37	0	31.0
May	1.39	.32	35.2
June	1.75	1.34	32.5
July	1.62	1.57	31.9
August	1.70	1.51	32.4
September	1.68	1.33	32.6
WTR YR 1992	1.51	.84	32.6

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower stages may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined. The gage heights are heights on the upstream side of the bridge, above the dam or at the discontinued continuous-record gaging station unless otherwise noted.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
Hackensack River basin								
Tenakill Brook at Closter, NJ *(01378385)	Lat 40°58'29", long 73°58'06, Bergen County, Hydrologic Unit 02030103, at bridge on High Street in Closter, 0.7 mi upstream from mouth. Datum of gage is 23.85 ft above sea level. Drainage area is 8.56 mi^2.	1965-92	9-03-92	b2.24	440	5-17-90	j3.63	930
Metzler Brook at Englewood, NJ (01378590)	Lat 40°54'29", long 73°59'13", Bergen County, Hydrologic Unit 02030103, at bridge on Lantana Avenue in Englewood, and 1.6 mi upstream from mouth. Datum of gage is 43.10 ft above sea level. Drainage area is 1.54 mi^2.	1965-92	9-03-92	b2.37	235	11-08-77	j2.84	470
Passaic River basin								
Passaic River near Bernardsville, NJ (01378690)	Lat 40°44'03", long 74°32'26", Somerset County, Hydrologic Unit 02030103, at bridge on U.S. Route 202, 1.8 mi northeast of Bernardsville, and 3.0 mi upstream from Great Brook. Datum of gage is 238.07 ft above sea level. Drainage area is 8.83 mi^2.	1968-76†, 1977-92	6-06-92	b13.78	870	8-28-71	18.56	3,850
Rockaway River at Warren Street, at Dover, NJ (01379845)	Lat 40°53'08", long 74°33'36", Morris County, Hydrologic Unit 02030103, on left bank, 100 ft upstream from bridge on Warren Street, in Dover, 4.0 mi west of Denville and 6 mi southeast of Lake Hopatcong. Datum of gage is 561.83 ft above sea level. Drainage area is 52.1 mi^2.	1981-92	9-04-92	n6.92	n2,000	4-06-84	7.20	2,170
Pond Brook at Oakland, NJ *(01387880)	Lat 41°01'36", long 74°14'04", Bergen County, Hydrologic Unit 02030103, at bridge on NJ Route 208 in Oakland, 0.2 mi upstream from former site at Franklin Avenue (prior to October 1975), 0.6 mi upstream from mouth, and 1.5 mi northwest of Franklin Lakes. Datum of gage is 276.97 ft above sea level. Drainage area is 6.76 mi^2.	1968-71, 1976-92	6-05-92	2.00	265	5-29-68	11.64	1,300

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		Passaic River basin--Continued						
Passaic River below Pompton River, at Two Bridges, NJ (01389005)	Lat40°53'47", long 74°16'10", Passaic County, Hydrologic Unit 02030103, on right bank, in Two Bridges and 400 ft downstream from the Pompton River. Datum of gage is 155.00 ft above sea level. Drainage area is 734 mi^2.	1989-92	6-07-92	9.99	a	5-18-89	12.65	a
Preakness (Singac) Brook near Preakness, NJ (01389030)	Lat 40°56'55", long 74°13'25", Passaic County, Hydrologic Unit 02030103, at bridge on Ratzer Road, 1.0 mi north of Preakness, and 2.0 mi upstream from Naachtpunkt Brook. Datum of gage is 230.8 ft above sea level. Drainage area is 3.24 mi^2.	1979-92	9-03-92	b4.68	780	5-16-90	b6.32	1,570
Passaic River above Beatties Dam, at Little Falls, NJ (01389492)	Lat 40°53'04", long 74°14'05", Passaic County, Hydrologic Unit 02030103, at Little Falls, 600 ft upstream from bridge on Union Boulevard and 1.5 mi upstream from mouth of Peckman River. Datum of gage is 150.00 ft above sea level. Drainage area is 762 mi^2.	1984, 1991-92	6-07-92	11.36	5,980	4-07-84	14.0	18,700
Peckman River at Ozone Avenue, at Verona, NJ (01389534)	Lat 40°50'42", long 74°14'09", Passaic County, Hydrologic Unit 02030103, at bridge on Ozone Avenue in Verona, 4.0 mi west of Clifton and 1.0 mi southwest of Cedar Grove Reservoir. Datum of gage is 300.08 ft above sea level. Drainage area is 4.45 mi^2.	1945, 1979-92	6-05-92	b4.10	1,120	7-23-45	---	m3,800
Molly Ann Brook at North Haledon, NJ (01389765)	Lat 40°57'11", long 74°11'07", Passaic County, Hydrologic Unit 02030103, at bridge on Overlook Avenue in North Haldeon, 1.5 mi west of Hawthorne and 0.5 mi upstream from Oldham Pond Dam. Datum of gage is 209.68 ft above sea level. Drainage area is 3.89 mi^2.	1945, 1979-92	9-03-92	8.12	740	7-23-45	---	k3,100
Fleischer Brook at Market Street, at Elmwood Park, NJ (01389900)	Lat 40°53'57", long 74°06'54", Bergen County, Hydrologic Unit 02030103, at culvert on Market Street in Elmwood Park (formerly East Paterson), and 2.0 mi upstream from mouth. Datum of gage is 35.31 ft above sea level. Drainage area is 1.37 mi^2.	1967-92	9-03-92	2.29	130	11-08-77	b6.47	470
Saddle River at Upper Saddle River, NJ *(01390450)	Lat 41°03'32", long 74°05'44", Bergen County, Hydrologic Unit 02030103, at culvert on Lake Street in Upper Saddle River, and 1.3 mi downstream from Pine Brook. Datum of gage is 186.11 ft above sea level. Drainage area is 10.9 mi^2.	1966-92	6-05-92	b3.25	500	11-08-77	jb5.25	4,150
Hohokus Brook at Allendale, NJ (01390810)	Lat 41°01'37", long 74°08'44", Bergen County, Hydrologic Unit 02030103, at bridge on Brookside Avenue in Allendale and 0.2 mi downstream from Valentine Brook. Datum of gage is 277.46 ft above sea level. Drainage area is 9.11 mi^2.	1969-92	6-05-92	5.00	310	11-08-77	8.28	1,380

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
Passaic River basin--Continued								
Ramsey Brook at Allendale, NJ (01390900)	Lat 41°01'44", long 74°08'07", Bergen County, Hydrologic Unit 02030103, at bridge on Brookside Avenue in Allendale and 0.6 mi upstream from Hohokus Brook. Datum of gage is 270.79 ft above sea level. Drainage area is 2.55 mi^2.	1975-92	9-03-92	e2.2	e140	11-08-77	b5.39	980
Third River at Bloomfield, NJ (01392170)	Lat 40°47'59", long 74°11'18", Essex County, Hydrologic Unit 02030103, on downstream left wingwall of bridge on entrance ramp at Interchange 148 to the Garden State Parkway in Bloomfield 0.6 mi west of Nutley, and 5.1 mi upstream from Passaic River. Drainage area is 7.71 mi^2.	1988-92	6-05-92	b6.58	a	6-05-92	b6.58	a
Second River at Belleville, NJ (01392500)	Lat 40°47'17", long 74°10'19", Essex County, Hydrologic Unit 02030103, on Mill Street in Branch Brook Park at Belleville, 300 ft downstream from Franklin Avenue, and 1,100 ft downstream from Hendricks Pond dam. Datum of gage is 62.6 ft above sea level. Drainage area is 11.6 mi^2.	1937-64†, 1963-92	6-05-92	6.78	3,050	8-28-71	9.80	6,500
Raritan River basin								
Walnut Brook near Flemington, NJ (01397500)	Lat 40°30'55", long 74°52'52", Hunterdon County, Hydrologic Unit 02030105, bank 1.2 mi northwest of Flemington, and 2.3 mi upstream from mouth. Datum of gage is 267.33 ft above sea level. Drainage area is 2.24 mi^2.	1936-61†, 1963-92	6-05-92	4.05	1,150	8-28-71	4.61	1,570
Back Brook tributary near Ringoes, NJ (01398045)	Lat 4°25'41", long 74°49'52", Hunterdon County, Hydrologic Unit 02030106, on right upstream wingwall of bridge on Wertsville Road, 2.1 mi east of Ringoes, 1.3 mi upstream from Back Brook, and 2.3 mi southwest of Wertsville. Datum of gage is 161.6 ft above sea level. Drainage area is 1.98 mi^2.	1978-88†, 1989-92	6-05-92	3.27	609	8-03-79	5.05	1,290
Axle Brook near Pottersville, NJ (01399525)	Lat 40°41'40", long 74°43'05", Somerset County, Hydrologic Unit 02030105, on right upstream wingwall of bridge on Black River Road, 1.3 mi, south of Pottersville, and 0.3 mi upstream from mouth. Datum of gage is 172.74 ft above sea level. Drainage area is 1.22 mi^2.	1977-88†, 1988-92	6-05-92	3.72	350	7-26-88	6.13	914
Rockaway Creek at Whitehouse, NJ (01399700)	Lat 40°37'55", long 74°44'11", Hunterdon County, Hydrologic Unit 02030105, on right bank at bridge on Lamington Road, 1.4 mi northeast of Whitehouse, and 1.8 mi upstream from mouth. Datum of gage is 99.64 ft above sea level. Drainage area is 37.1 mi^2.	1959-62, 1964-65, 1977-84†, 1985-92	6-06-92	6.79	2,020	7-07-84	11.33	4,600

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		Raritan River basin--Continued						
North Branch Raritan River at North Branch, NJ (01399830)	Lat 40°36'00", long 74°40'27", Somerset County, Hydrologic Unit 02030105, on right bank 5 ft upstream from bridge on State Highway 28 in North Branch, 0.1 mi south of River Brook, and 3.6 mi upstream from confluence with South Branch Raritan River. Datum of gage is 56.94 ft above sea level. Drainage area is 174 mi^2.	1977-81†, 1982-92	6-06-92	11.96	6,990	7-07-84	19.31	27,300
Peters Brook at Mercer Street, at Somerville, NJ (01400360)	Lat 40°34'30", long 74°37'07", Somerset County, Hydrologic Unit 02030105, on the left bank on the downstream side of the bridge on Mercer Street, 0.4 mi downstream from Macs Brook and 0.6 mi upstream from Ross Brook. Datum of gage is 42.51 ft above sea level. Drainage area is 7.37 mi^2.	1991-92	12-03-91	b3.81	a	9-25-91	b6.32	a
Millstone River at Southfield Road, near Grovers Mill, NJ (01400630)	Lat 40°18'12", long 74°34'33", Mercer County, Hydrologic Unit 02030105, at bridge on Southfield Road, 0.2 mi southeast at Grovers Mill, 3.5 mi southwest of Cranbury, and 3.0 mi upstream of Bear Brook. Datum of gage is 62.63 ft above sea level. Drainage area is 41.0 mi^2.	1971,75, 1979-92	6-06-92	6.03	810	7-03-87	j6.71	1,120
Millstone River at Plainsboro, NJ (01400730)	Lat 40°19'27", long 74°36'51", Mercer County, Hydrologic Unit 02030105, on left bank 30 ft upstream from railroad bridge on AMTRAK (former Penn Central) mainline, 100 ft downstream from Cranbury Brook, 0.2 mi upstream from Bear Brook, and 0.9 mi southwest of Plainsboro. Datum of gage is 53.41 ft sea level. Drainage area is 65.8 mi^2.	1965-75†, 1976-87, 1987-89†, 1990-92	6-06-92	4.64	1,220	7-21-75	8.96	3,970
Bear Brook at Route 535, near Locust Corner, NJ (01400775)	Lat 40°16'41", long 74°34'39", Mercer County, Hydrologic Unit 02030105, at bridge on State Route 535, 0.9 mi southwest of Locust Corner, 2.0 mi east of Hightstown, and 4.2 mi above mouth. Datum of gage is 73.75 ft above sea level. Drainage area is 6.69 mi^2.	1971,75, 1979-92	6-06-92 1-12-91 8-07-90	b5.10 b4.80 b5.96	382 f310 f620	f6-10-89	jb7.95	1,550
Bear Brook at Route 571, near Grovers Mill, NJ (01400795)	Lat 40°17'41", long 74°35'34", Mercer County, Hydrologic Unit 02030105, at bridge on Route 571 (Princeton-Hightstown Road), 1.2 mi upstream of Grovers Mill Pond, 1.4 mi east of Princeton Junction, and 2.9 mi west of U.S. Route 130 and Hightstown. Datum of gage is 62.48 ft above sea level. Drainage area is 9.28 mi^2.	1986-92	6-06-92	8.93	215	6-10-89	11.90	1,325
Little Bear Brook at Penns Neck, NJ (01400822)	Lat 40°19'21", long 74°37'37", Mercer County, Hydrologic Unit 02030105, at downstream side of bridge on Alexander Road, 0.9 mi southeast of Penns Neck, 2.8 mi southwest of Plainsboro and 1.0 mi above mouth. Datum of gage is 53.96 ft above sea level. Drainage area is 1.84 mi^2.	1971,75, 1979-92	6-06-92	2.56	53	7-03-87	j3.27	107

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		Raritan River basin--Continued						
Stony Brook at Glenmoore, NJ (01400900)	Lat 40°21'55", long 74°47'14", Mercer County, Hydrologic Unit 02030105, at highway bridge on Spur State Route 518, 200 ft east of tracks of CONRAIL, at Glenmoore, and 2.0 mi southwest of Hopewell. Datum of gage is 159.1 ft above sea level. Drainage area is 17.0 mi^2.	1957-92	6-06-92	b7.49	2,720	8-28-71	b11.02	6,100
Baldwins Creek (revised) at Pennington, NJ *(01400930)	Lat 40°20'18", long 74°47'50", Mercer County, Hydrologic Unit 02030105, at bridge on State Route 31, 0.8 mi north of Pennington, and 0.9 mi upstream from Baldwin Lake dam. Datum of gage is 161.69 ft above sea level. Drainage area is 1.99 mi^2.	1960-92	6-06-92	e3.05	e50	8-27-71	8.64	1,260
Hart Brook near Pennington, NJ (01400950)	Lat 40°19'17", long 74°45'38", Mercer County, Hydrologic Unit 02030105, at culvert on Federal City Road, 1.6 mi upstream of mouth, and 1.7 mi southeast of Pennington. Datum of gage after July 1, 1975 is 163.32 ft above sea level. Drainage area is 0.57 mi^2.	1968-92	6-06-92	2.03	37	7-14-87	j5.27	470
Duck Pond Run near Princeton Junction, NJ (01401160)	Lat 40°17'47", long 74°38'47", Mercer County, Hydrologic Unit 02030105, on right bank upstream from bridge on Clarksville Road, 1.5 mi southwest of Princeton Junction, and 4.0 mi south of Princeton. Datum of gage is 72.50 ft above sea level. Drainage area is 1.35 mi^2.	1980-92	6-06-92	3.93	91	6-10-89	6.68	275
Millstone River at Carnegie Lake, at Princeton, NJ (01401301)	Lat 40°22'11", long 74°37'15", Middlesex County, Hydrologic Unit 02030105, at right end of Carnegie Lake dam, 2.5 mi northeast of Princeton. Datum of gage is 50.00 ft above sea level. Drainage area is 159 mi^2.	1971, 1973-74†, 1977-87, 1988-89†, 1990-92	6-06-92	4.44	4,210	8-28-71	7.09	13,000
Rock Brook near Blawenburg, NJ (01401595)	Lat 40°25'47", long 74°41'05", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Hill Road, 0.7 mi upstream from mouth, 1.0 mi northeast of Blawenburg, and 2.8 mi northwest of Rocky Hill. Datum of gage is 63.45 ft above sea level. Drainage area is 9.03 mi^2.	1967-92	6-06-92	c<3.24	r<31	8-28-71	10.00	4,530
Beden Brook near Rocky Hill, NJ (01401600)	Lat 40°24'52", long 74°39'02", Somerset County, Hydrologic Unit 02030105, at bridge on U.S. Route 206, 0.7 mi upstream from Pike Run, 1.2 mi northwest of Rocky Hill, and 4.6 mi north of Princeton. Datum of gage is 38.09 ft above sea level. Drainage area is 27.6 mi^2.	1967-92	6-06-92	b8.18	2,480	8-28-71	b16.83	12,100
Six Mile Run near Middlebush, NJ (01401870)	Lat 40°28'12", long 74°32'42", Somerset County, Hydrologic Unit 02030105, at bridge on South Middlebush Road, 1.6 mi upstream from mouth, and 2.1 mi south of Middlebush. Datum of gage is 39.91 ft above sea level. Drainage area is 10.7 mi^2.	1966-92	6-06-92	c<4.88	r<260	7-14-75	11.77	10,200

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			Raritan River basin--Continued					
Blue Brook at Seeleys Pond Dam, near Berkeley Heights, NJ (01403395)	Lat 40°40'02", long 74°24'13", Union County, Hydrologic Unit 02030105, on wall on right bank, upstream from Seeleys Pond spillway, 300 ft north of Scotch Plains, 1.0 mi west of Mountainside, and 4.5 mi southeast of Berkeley Heights. Datum of gage is 202.05 ft above sea level. Drainage area is 3.59 mi^2.	1973, 1981-92	e6-05-92	---	e380	8-02-73	7.55	2,080
Green Brook at Plainfield, NJ (01403500)	Lat 40°36'53", Long 74°25'55", Union County, Hydrologic Unit 02030105, on left bank 20 ft downstream from bridge on Sycamore Avenue in Plainfield and 1.0 mi upstream from Stony Brook. Datum of gage is 70.37 ft above sea level. Drainage area is 9.75 mi^2.	1938-84†, 1985-92	6-05-92	b4.41	1,250	7-23-38	jb5.82	2,890
Stony Brook at North Plainfield, NJ (01403570)	Lat 40°37'19", long 74°26'11, Somerset County, Hydrologic Unit 02030105, at bridge on Green Brook Road, in North Plainfield, 100 ft downstream of Crab Brook, and 1.4 mi upstream of mouth. Datum of gage is 71.59 ft above sea level. Drainage area is 6.88 mi^2.	1975-82, 1991-92	7-09-92	b4.65	a	9-06-79	jb5.57	1,100
Green Brook at Rock Avenue, at Plainfield, NJ (01403600)	Lat 40°36'07", long 74°27'28", Somerset County, Hydrologic Unit 02030105, at bridge on Rock Avenue in Plainfield, 0.35 mi north of West Front Street, and 0.65 mi south of Route 22. Datum of gage is 45.70 fe (revised) above sea level. Drainage area is 18.2 mi^2.	1972-79, 1992	7-09-92	b6.08	a	8-02-73	b10.65	10,400
Bound Brook at Middlesex, NJ (01403900)	Lat 40°35'06", long 74°30'29", Somerset County, Hydrologic Unit 02030105, at bridge on Sebrings Mill Road, 0.4 mi downstream of mouth of Green Brook, and 2.3 mi upstream of mouth. Datum of gage is 26.72 ft above sea level. Drainage area is 48.4 mi^2.	1972-77†, 1992	6-06-92	b9.26	a	8-02-73	14.46	7,000
Lawrence Brook at Farrington Dam, NJ (01405000)	Lat 40°27'00", long 74°27'05", Middlesex County, Hydrologic Unit 02030105, on left bank 300 ft upstream from Farrington Dam, 0.7 mi southwest of Milltown, and 5.4 mi upstream from mouth. Datum of gage is 25.73 ft above sea level. Drainage area is 34.4 mi^2.	1927-90†, 1992	6-06-92	24.81	a	7-21-75	26.93	6,400
			Shrewsbury River basin					
Big Brook near Marlboro, NJ (01407290)	Lat 40°19'10", long 74°12'52", Monmouth County, Hydrologic Unit 02030104, downstream side of bridge on Hillsdale Road, 1.7 mi east of Marlboro, and 3.0 mi northwest of Colts Neck. Drainage area is 64.2 mi^2.	1980-92	6-20-92	b8.53	1,070	09-20-89	b10.16	1,370

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
Manasquan River basin								
Manasquan River near Georgia, NJ *(01407830)	Lat 40°12'36", long 74°16'41", Monmouth County, Hydrologic Unit 02040301, at culvert on Jacksons Mill Road near Georgia, and 0.5 mi upstream from Debois Creek. Datum of gage is 70.52 ft (revised) above sea level. Revised records--WDR NJ-87-1. Drainage area is 10.6 mi^2.	1969-92	6-20-92	13.53	1,150	6-20-92	13.53	1,150
Mingamahone Brook at Farmingdale, NJ *(01408015)	Lat 40°11'38", long 74°09'42", Monmouth County, Hydrologic Unit 02040301, at bridge on Belmar Road in Farmingdale, and 3.0 mi upstream from mouth. Datum of gage is 48.64 ft above sea level. Drainage area is 6.20 mi^2.	1969-92	6-20-92	c<3.54	r<70	7-21-75	7.31	425
Manasquan River at Allenwood, NJ *(01408030)	Lat 40°08'35", long 74°07'03", Monmouth County, Hydrologic Unit 02040301, at bridge on Hospital Road at Allenwood, and 1.5 mi downstream from Mill Run. Datum of gage is 3.56 ft above sea level. Drainage area is 63.9 mi^2.	1969-92	6-20-92	b8.32	1,800	9-27-75	b11.24	3,700
Maurice River basin								
Menantico Creek near Millville, NJ (01412000)	Lat 39°25'12", long 74°58'00", Cumberland county, Hydrologic Unit 02040206 on left bank at upstream side of Mays Landing Road (State Route 552), 0.9 mi downstream of Menantico Lake, 4.0 mi northeast of Millville, and 7.0 mi upstream from mouth. Datum of gage is 36.63 ft above sea level. Drainage area is 23.2 mi^2.	1931-57†, 1978-84†, 1985-92	8-18-92	2.54	146	8-20-39	6.21	1,050
Cohansey River basin								
West Branch Cohansey River at Seeley, NJ (01412500)	Lat 39°29'06, long 75°15'33", Cumberland County, Hydrologic Unit 02040206, on right bank 15 ft upstream from county bridge, Highway 31 at Seeley, 450 ft upstream from mouth, and 4.1 mi northwest of Bridgeton. Datum of gage is 42.23 ft above sea level. Drainage area is 2.58 mi^2.	1952-67†, 1968-92	6-06-92	c<2.08	r<53	6-20-83	11.17	885
Cohansey River at Seeley, NJ (01412800)	Lat 39°28'21", long 75°15'21", Cumberland County, Hydrologic Unit 02040206, on right bank just downstream from 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. Datum of gage is 26.9 ft above sea level. Drainage area is 28.0 mi^2.	1978-88†, 1989-92	6-06-92	4.80	210	6-21-83	8.50	10,000
Delaware River basin								
Pequest River at Huntsville, NJ *(01445000)	Lat 40°58'52", long 74°46'36", Sussex County, Hydrologic Unit 02040105, on right bank, 20 ft upstream from highway bridge in Huntsville, and 0.4 mi downstream from East Branch. Datum of gage is 553.81 ft above sea level. Drainage area is 31.0 mi^2.	1940-62†, 1963-92	6-06-92	3.24	155	1-25-79	5.44	640

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		Delaware River basin--Continued						
Pequest River at Townsbury, NJ (01445430)	Lat 40°51'06", long 74°56'02", Warren County, Hydrologic Unit 02040105, upstream of highway bridge in Townsbury, 2.8 mi northeast of Pequest, and 8.7 mi west of Hackettstown. Altitude of gage is 480 ft, from topographic map. Drainage area is 92.5 mi^2.	1977-80†, 1981-92	6-06-92	4.38	1,460	2-04-82	5.10	2,570
Beaver Brook near Belvidere, NJ *(01446000)	Lat 40°50'40", long 75°02'48, Warren County, Hydrologic Unit 02040105, on right bank, 2,000 ft upstream from mouth, and 2 mi east Belvidere. Datum of gage is 303.36 ft above sea level. Drainage area is 36.7 mi^2.	1922-61†, 1963-92	3-27-92	2.94	209	3-12-36	5.76	1,510
Pohatcong Creek at New Village, NJ *(01455200)	Lat 40°42'57", long 75°04'20", Warren County, Hydrologic Unit 02040105, at bridge on Edison Road, 0.4 mi southeast of New Village, and 4.3 mi upstream from Merrill Creek. Datum of gage is 308.32 ft above sea level. Drainage area is 33.3 mi^2.	1960-69†, 1970-92	6-06-92	3.39	470	1-25-79	8.10	3,570
Musconetcong River at outlet of Lake Hopatcong, NJ (01455500)	Lat 40°55'00", long 74°39'55", Morris County, Hydrologic Unit 02040105, on left bank just upstream of highway bridge 300 ft downstream from Lake Hopatcong Dam in Landing. Datum of gage is 904.99 ft above sea level. Drainage area is 25.3 mi^2.	1929-75†, 1976-92	6-06-92	2.23	556	8-20-55	j3.85	795
Musconetcong River near Hackettstown, NJ (01456000)	Lat 40°53'17", long 74°47'53", Warren County, Hydrologic Unit 02040105, on right bank 75 ft upstream from Saxton Falls Dam, 0.5 mi upstream from Erie-Lackawanna Railway bridge, and 3.0 mi northeast of Hackettstown. Datum of gage is 630.93 ft above sea level. Drainage area is 68.9 mi^2.	1921-73†, 1974-92	12-04-91	3.11	174	8-19-55	j3.97	2,170
Delaware River at Riegelsville, NJ (01457500)	Lat 40°35'36", long 75°11'17", Warren County, Hydrologic Unit 02040105, just upstream of suspension bridge at Riegelsville, 600 ft upstream from Musconetcong River (flow of which is included in the records for this station since Oct. 1, 1931). Datum of gage is 125.12 ft above sea level. Drainage area is 6,328 mi^2.	1906-71†, 1972-92	11-24-91	10.59	34,800	8-19-55	38.85	340,000
Crosswicks Creek at New Egypt, NJ (01464400)	Lat 40°04'03", long 74°31'57", Ocean County, Hydrologic Unit 02040201, at upstream side of bridge on State Route 528 in New Egypt, and 300 ft downstream from Oakford Lake Dam. Datum of gage is 43.46 ft above sea level. Drainage area is 41.2 mi^2.	1968-92	8-19-91	p	e410	9-01-78	30.27	4,500
Doctors Creek at Allentown, NJ (01464515)	Lat 40°10'37", long 74°35'57", Monmouth County, Hydrologic Unit 02040201, at bridge on Breza Road in Allentown, and 0.8 mi downstream from Conines Millpond Eam. Datum of gage is 50.98 ft above sea level. Drainage area is 17.4 mi^2.	1968-92	10-18-91	b2.20	s100	8-28-71	b7.3	1,250

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		Delaware River basin--Continued						
Blacks Creek at Mansfield Square, NJ (01464530)	Lat 40°07'02", long 74°41'58", Burlington County, Hydrologic Unit 02040201, at bridge on Mansfield Square-Crosswicks Road, 0.4 mi east of Mansfield Square, and 3.4 mi upstream from mouth. Datum of gage is 12.44 ft above sea level. Drainage area is 19.7 mi^2.	1978-92	6-19-92	b6.75	480	8-31-78	b11.20	2,500
Crafts Creek at Columbus, NJ (01464538)	Lat 40°04'44", long 74°43'07", Burlington County, Hydrologic Unit 02040201, at bridge on Columbus-Mansfield road, 0.4 mi north of Columbus, and 6.0 mi northeast of Mount Holly. Datum of gage is 33.71 ft above sea level. Drainage area is 5.38 mi^2.	1978-92	6-19-92	b5.23	a	7-06-89	b10.25	880
Assiscunk Creek near Columbus, NJ (01464582)	Lat 40°03'13", long 74°44'34", Burlington County, Hydrologic Unit 02040201, at bridge on Petticoat Bridge Road, 1.7 mi southwest of Columbus, 4.0 mi northeast of Mount Holly, and 0.1 mi downstream from Assiscunk Branch. Drainage area is 10.9 mi^2.	1978-92	6-06-92	b5.73	225	8-31-78	b11.10	1,480
South Branch Rancocas Creek at Vincentown, NJ (01465850)	Lat 39°56'22", long 74°45'50", Burlington County, Hydrologic Unit 02040202, on left bank 150 ft downstream from highway bridge on Lumberton-Vincentown Road, 0.8 mi west of Vincentown, 2.9 mi southeast of Lumberton, and 3.1 mi upstream from Southwest Branch. Datum of gage is 13.17 ft above sea level. Drainage area is 64.5 mi^2.	1962-75†, 1976-92	12-10-91	4.46	293	8-28-78	7.98	1,320
Southwest Branch Rancocas Creek at Medford, NJ *(01465880)	Lat 39°53'43", long 74°49'26", Burlington County, Hydrologic Unit 02040202, at bridge on Argonne Highway (State Route 541), 0.6 mi south of intersection of Argonne Highway and State Highway 70 at Medford, and 5.3 mi upstream from mouth. Drainage area is 47.2 mi^2.	1983-92	8-19-92	9.60	740	7-05-89	15.30	3,300
Newton Creek at Collingswood, NJ *(01467305)	Lat 39°54'30", long 75°03'13", Camden County, Hydrologic Unit 02040202, at bridge on Park Avenue in Collingswood, 0.3 mi east of Cuthbert Avenue. Datum of gage is 18.74 ft above sea level. Drainage area is 1.33 mi^2.	1964-92	9-26-92	4.79	230	9-01-78	6.40	307
South Branch Newton Creek at Haddon Heights, NJ (01467317)	Lat 39°52'45", long 75°04'26", Camden County, Hydrologic Unit 02040202, at bridge on Haddon Heights Park in Haddon Heights, and 2.6 mi south of Collingswood. Datum of gage is 23.34 ft above sea level. Drainage area is 0.63 mi^2.	1964-92	9-26-92	3.18	88	9-01-78	4.62	295

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		Delaware River basin--Continued						
Mantua Creek at Pitman, NJ (01475000)	Lat 39°44'14", long 75°06'53", Gloucester County, Hydrologic Unit 02040202, on left abutment of Wadsworth Dam, 0.9 mi east of Pitman, and 2.0 mi upstream from Porch Branch. Datum of gage is 68.51 ft above sea level. Drainage area is 6.05 mi^2.	1940-76†, 1977-92	12-03-91	1.73	122	b9-01-40	6.64	4,200
Raccoon Creek at Mullica Hill, NJ (01477110)	Lat 39°44'10", long 75°13'30", Gloucester County, Hydrologic Unit 02040202, at bridge on State Routes 45 and 77 in Mullica Hill, 1,200 ft downstream of Mullica Hill Pond, and 5.5 mi west of Pitman. Datum of gage is 21.91 ft above sea level. Drainage area is 15.6 mi^2.	1940, 1978-92	12-03-91,	b1.92	96	9-01-40	---	2,900
Oldmans Creek near Harrisonville, NJ (01477480)	Lat 39°41'20", long 75°18'38", Salem County, Hydrologic Unit 02040206, at bridge on Harrisonville Station Road, 2.4 mi west of Harrisonville, and 2.8 mi north of Woodstown. Datum of gage is 16.58 ft above sea level. Drainage area is 13.8 mi^2.	1975-92	7-06-92	5.21	308	1-26-78	6.51	800
Salem River at Woodstown, NJ (01482500)	Lat 39°38'36", long 75°19'52", Salem County, Hydrologic Unit 02040206, on right side of Memorial Lake Dam at Woodstown, 0.2 mi upstream from small brook, and 0.3 mi downstream from Pennsylvania-Reading Seashore Lines bridge. Datum of gage is 19.49 ft above sea level (corrected). Drainage area is 14.6 mi^2.	1940†, 1942-84†, 1985-88, 1989-90†, 1992	12-03-91	11.38	84	9-01-40	j7.98	22,000

* Also a low-flow partial-record station.
† Operated as a continuous-record gaging station.
a Discharge not determined.
b Downstream side of bridge.
c Peak gage height for this period was below minimum recordable level.
e Estimated.
f Revised.
g Not previously published.
h At site and datum then in use.
j Not the maximum gage height for period of record.
k Determined at Squaw Lake Dam, 0.2 mi upstream of gage.
m Determined at Bradford Avenue, 0.2 mi downstream of gage, adjusted for change in drainage area.
n Include flow from small dam break in Heddon Park.
p Gage height not recorded due to malfunction of gage.
r Peak discharge for this period was less than minimum recordable discharge.
s Peak may have been higher June 6.

Low-flow partial-record stations

Measurements of streamflow in New Jersey made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from groundwater storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1992

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin				
01379525	Canoe Brook near Millburn, NJ	Lat 40°44'55", long 74°20'14", Essex County, Hydrologic Unit 02030103, at bridge on Parsonage Hill Road, 0.2 mi downstream from Taylor Lake, 1.0 mi upstream from New Jersey-American Water Company pumping station, and 1.4 mi northwest of Millburn.	10.2	1989-92	6-15-92 9-02-92	2.1 .22
01381200	Rockaway River at Pine Brook, NJ	Lat 40°51'42, long 74°20'53", Morris County, Hydrologic Unit 02030103, at bridge on U.S. Route 46, 0.9 mi west of Pine Brook, and 1.1 mi upstream of Whippany River.	136	1963-73, 1979-81, 1983-92	8-22-92	27
01381550	Malapardis Brook at Whippany, NJ	Lat 40°49'22", long 74°25'08", Morris County, Hydrologic Unit 02030103, at bridge on Parsippany Road at Whippany, 400 ft upstream from mouth, and 2.2 mi south of Parsippany.	5.07	1989-92	6-15-92 9-02-92	1.6 .98
01381800	Whippany River near Pine Brook, NJ	Lat 40°50'42", long 74°20'51", Morris County, Hydrologic Unit 02030103, at bridge on Edwards Road, 0.3 mi upstream from mouth, and 1.3 mi southwest of Pine Brook.	68.5	1963-68, 1978-81, 1983-92	8-07-92	41
01382000	Passaic River at Two Bridges, NJ	Lat 40°53'50", long 74°16'23", Essex County, Hydrologic Unit 02030103, at bridge on Two Bridges Road, just upstream of confluence with Pompton River, 0.3 mi northeast of Two Bridges, and 2.6 mi northwest of Little Falls.	361	1963-68, 1983-84, 1986-92	9-21-92	114
01382550	Pequannock River tributary at Kinnelon, NJ	Lat 41°00'12", long 74°22'08", Morris County, Hydrologic Unit 02030103, at culvert on Kinnelon Road, at Kinnelon, 300 ft upstream from Maple Lake and 1.0 mi west of Butler.	1.18	1992	6-17-92 9-02-92	.64 .25
01382700	Stone House Brook at Kinnelon, NJ	Lat 40°59'17", long 74°23'10", Morris County, Hydrologic Unit 02030103, at culvert on Kinnelon Road at Kinnelon, 200 ft downstream from dam on unnamed pond, and 0.3 mi upstream of Butler Reservoir.	3.45	1992	9-02-92	.76
01387490	Masonicus Brook at West Mahwah, NJ	Lat 41°05'53", long 74°08'57" Bergen County, Hydrologic Unit 02030103, at bridge on Eastview Avenue, at West Mahwah, 0.3 mi downstream from Winters Pond and 0.4 mi upstream from mouth.	3.84	1982-83, 1992	6-17-92 9-02-92	3.6 1.2
*01387880	Pond Brook at Oakland, NJ	Lat 41°01'45", long 74°14'13", Bergen County, Hydrologic Unit 02030103, at bridge on State Route 208, in Oakland and 0.3 mi upstream from mouth.	7.52	1963-73, 1982-83, 1992	9-10-92	5.5
01388700	Beaverdam Brook at Lincoln Park, NJ	Lat 40°55'29", long 74°18'10", Morris County, Hydrologic Unit 02030103, at bridge on Park Avenue, at Lincoln Park, 0.6 mi downstream from East Ditch and 0.7 mi upstream of mouth.	12.3	1992	6-17-92 9-02-92	9.0 3.2

Discharge measurements made at low-flow partial-record stations during water year 1992--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin--Continued				
01389100	Singac Brook at Singac, NJ	Lat 40°53'57", long 74°15'57", Passaic County, Hydrologic Unit 02030103, at bridge on Fairfield Road, between Interstate 80 and US Route 46, 60 ft upstream from mouth, 1.2 mi northwest of Singac, and 1.8 mi northwest of Little Falls.	11.1	1963-67, 1983-84, 1986-92	6-17-92 9-02-92	22 21
01389140	Deepavaal Brook at Two Bridges, NJ	Lat 40°53'14", long 74°16'00", Essex County, Hydrologic Unit 02030103, at bridge on Little Falls Road, 400 ft upstream from Passaic River, and 0.8 mi southeast of Two Bridges.	7.59	1970, 1983-84, 1988-92	6-17-92 9-02-92	3.8 1.5
*01390450	Saddle River at Upper Saddle River, NJ	Lat 41°03'32", long 74°05'44", Bergen County, Hydrologic Unit 02030103, at culvert on Lake Street in Upper Saddle River, 1.3 mi downstream from Pine Brook and 1.7 mi downstream from New York-New Jersey State line.	10.9	1964-72, 1975, 1992	9-10-92	4.7
		Elizabeth River basin				
01393350	West Branch Elizabeth River near Union, NJ	Lat 40°41'32", long 74°14'38", Union County, Hydrologic Unit 02030104, at bridge on Vauxhall Road, 0.3 mi upstream of mouth, 1.4 mi east of Union, and 2.3 mi northwest of Elizabeth.	2.53	1989-92	6-15-92 9-02-92	.26 0
		Rahway River basin				
01394400	Van Winkle Brook at Springfield, NJ	Lat 40°42'12", long 74°18'15", Union County, Hydrologic Unit 02030104, at railroad bridge in Springfield, 0.4 mi upstream from mouth, 0.4 mi downstream from bridge on Mountain Avenue, and 2.3 mi west of Union.	4.85	1989-92	6-15-92 9-02-92	.72 .32
01394600	Nomahegan Brook near Mountain-side, NJ	Lat 40°40'42", long 74°19'54", Union County, Hydrologic Unit 02030104, at bridge on Springfield Avenue, 0.2 mi downstream of Echo Lake, 1.1 mi upstream of mouth, and 1.4 mi northeast of Mountainside.	3.76	1989-92	6-15-92 9-02-92	1.2 .89
		Raritan River basin				
01396220	Stony Brook at Naughright, NJ	Lat 40°48'11", long 74°45'07", Morris County, Hydrologic Unit 02040105, at bridge on Naughright Road, 0.6 mi northwest of Naughright, 0.7 mi upstream from mouth, and 1.9 mi northeast of Long Valley.	3.34	1963-67, 1973, 1991-92	5-29-92 9-01-92	2.0 1.2
01396240	Electric Brook at Long Valley, NJ	Lat 40°47'23", long 74°46'36", Morris County, Hydrologic Unit 02030105, at bridge on Fairview Avenue at Long Valley, 0.3 mi upstream of mouth, and 0.8 mi downstream of Camp Washington Pond.	3.17	1991-92	6-15-92 9-03-92	4.3 3.0
01396280	South Branch Raritan River at Middle Valley, NJ	Lat 40°45'40", long 74°49'18", Morris County, Hydrologic Unit 02030105, at bridge on Middle Valley Road, at Middle Valley, 200 ft northwest of West Mill Road (State Route 513), and 0.2 mi upstream of abandoned railroad bridge.	47.7	1963-67, 1973, 1975, 1982-83, 1985-92	8-26-92	30
01398260	North Branch Raritan River near Chester, NJ	Lat 40°46'16", long 74°37'34", Morris County, Hydrologic Unit 02030105, at bridge on State Route 24, 0.8 mi upstream from Burnett Brook, and 3.8 mi east of Chester.	7.57	1964-67, 1980-92	8-26-92	4.0

Discharge measurements made at low-flow partial-record stations during water year 1992--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Raritan River basin--Continued				
01399120	North Branch Raritan River at Burnt Mills, NJ	Lat 40°38'09", long 74°40'56", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Mills Road, 0.1 mi upstream from Lamington River, 0.3 mi east of Burnt Mills, and 4.0 mi southwest of Far Hills.	63.8	1964, 1975-78, 1981-83, 1985-92	8-25-92	27
01399190	Lamington (Black) River at Succasunna, NJ	Lat 40°51'03", long 74°38'02", Morris County, Hydrologic Unit 02030105, bridge on Righter Road, 0.7 mi south of Succasunna, and 0.4 mi upstream from Succasunna Brook.	7.37	1977-87a, 1988-92	10-29-91 5-29-92 6-23-92 8-04-92 9-01-92	4.5 2.1 8.7 7.1 3.7
01399200	Lamington (Black) River near Ironia, NJ	Lat 40°50'07", long 74°38'40", Morris County, Hydrologic Unit 02030105, at bridge on Ironia Road, 1.0 mi downstream of Succasunna Brook, and 1.3 mi northwest of Ironia.	10.9	1964-72, 1976-87a, 1988-92	11-29-91 5-29-92 6-23-92 8-04-92 9-01-92	6.6 3.3 12 10 5.3
01399295	Tanners Brook near Milltown, NJ	Lat 40°47'17", long 74°43'33", Morris County, Hydrologic Unit 02030105, at bridge on Tanners Brook Road, 0.2 mi upstream of mouth, 0.6 mi north of Milltown and 1.5 mi west of Chester.	2.78	1991-92	5-29-92 9-01-92	1.8 1.4
01399300	Lamington River at Milltown, NJ	Lat 40°47'13", long 74°43'13", Morris County, Hydrologic Unit 02030105, at bridge on New Furnace Road, 0.1 mi downstream from Tanners Brook, and 0.6 mi north of Milltown.	23.2	1988-92	5-29-92 9-01-92	17 15
*01399700	Rockaway Creek at Whitehouse, NJ	Lat 40°37'49", long 74°44'11", Hunterdon County, Hydrologic Unit 02030105, at bridge on Lamington Road, 1.4 mi northeast of Whitehouse, and 1.8 mi upstream from mouth.	37.1	1959-62, 1964-65, 1973, 1977-84b, 1986-92	8-25-92	15
01400540	Millstone River near Manalapan, NJ	Lat 40°15'44", long 74°25'13", Monmouth County, Hydrologic Unit 02030105, at bridge on State Route 33, 1.3 mi west of Manalapan, 5.5 mi east of Hightstown, and 8.4 mi upstream of Rocky Brook.	7.37	1960-62, 1964, 1971-72, 1985, 1987-92	9-22-92	3.7
		Matawan Creek basin				
01407012	Gravelly Brook at Church Street, at Matawan, NJ	Lat 40°21'25", long 74°05'18", Monmouth County, Hydrologic Unit 02030104, at bridge on Church Street, 0.5 mi east of intersection of State Routes 34 and 79, and 0.9 mi upstream of the mouth.	2.36	1987-92	6-15-92 9-03-92	1.7 1.8
01407026	Mohingson (Wilkson) Creek at Church Street, at Matawan, NJ	Lat 40°24'24", long 74°14'18", Monmouth County, Hydrologic Unit 02030104, at bridge on Church Street, 0.7 mi east of Matawan, 2.2 mi southeast of Keyport, and 2.6 mi upstream of mouth.	1.37	1987-92	6-15-92 9-03-92	1.5 1.4
		East Creek basin				
01407055	East Creek at North Centerville, NJ	Lat 40°25'32", long 74°09'58", Monmouth County, Hydrologic Unit 02030104, at bridge on Middle Road, 0.2 mi west of intersection of Union Road and Middle Road at North Centerville, and 2.0 mi upstream from mouth.	2.56	1969, 1986-92	6-15-92 9-03-92	1.3 1.8
		Waackaack Creek basin				
01407070	Waackaack Creek at Middle Road, near Keansburg, NJ	Lat 40°25'23", long 74°08'12", Monmouth County, Hydrologic Unit 02030104, at bridge on Middle Road at community of Philips Mills, 1.4 mi south of Keansburg, and 3.1 mi upstream from mouth.	4.30	1987-92	6-15-92 9-03-92	3.6 3.3

Discharge measurements made at low-flow partial-record stations during water year 1992--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Compton Creek basin				
01407102	Town Brook at Church Street, at New Monmouth, NJ	Lat 40°24'52", long 74°06'00", Monmouth County, Hydrologic Unit 02030104, at bridge on Church Street, at New Monmouth, 0.2 mi upstream of mouth, and 1.1 mi south of Port Monmouth.	3.35	1987-92	6-15-92 9-03-92	1.7 2.6
		Shrewsbury River basin				
01407532	Poricy Brook at Red Bank, NJ	Lat 40°21'25", long 74°05'18", Monmouth County, Hydrologic Unit 02030104, at bridge on Navesink River Road, 200 ft downstream of Poricy Pond, 0.4 mi upstream of mouth, and 1.0 mi northwest of Red Bank.	2.54	1987-92	6-15-92 9-03-92	1.5 3.1
		Whale Pond Brook basin				
01407618	Whale Pond Brook near Oakhurst, NJ	Lat 40°16'35", long 74°00'12", Monmouth County, Hydrologic Unit 02030104, at bridge on Norwood Avenue, 0.6 mi upstream of Lake Takanassee, and 0.8 mi northeast of Oakhurst.	6.20	1989-92	6-16-92 9-21-92	3.9 4.0
		Poplar Brook basin				
01407628	Poplar Brook near Deal, NJ	Lat 40°15'24", long 74°00'42", Monmouth County, Hydrologic Unit 02030104, at bridge on Monmouth Road, 0.7 mi west of Deal, 1.0 mi south of Oakhurst, and 1.3 mi upstream of mouth.	2.49	1989-92	6-16-92 9-21-92	1.9 1.6
		Harvey (Hog Swamp) Brook basin				
01407636	Harvey (Hog Swamp) Brook at West Allenhurst, NJ	Lat 40°14'36", long 74°00'52", Monmouth County, Hydrologic Unit 02030104, at culvert on Monmouth Road at West Allenhurst, 0.7 mi west of Deal, and 1.6 mi upstream of dam on Deal Lake.	1.99	1989-92	6-16-92 9-21-92	.98 .88
		Shark River basin				
01407755	Jumping Brook above reservoir, near Neptune City, NJ	Lat 40°12'30", long 74°04'12", Monmouth County, Hydrologic Unit 02030104, at bridge on State Route 33, 0.25 mi upstream of Jumping Brook Reservoir, and 2.3 mi west of Neptune City.	5.58	1989-92	6-16-92 9-21-92	1.6 1.4
		Polly Pod Brook basin				
01407780	Polly Pod Brook at South Belmar, NJ	Lat 40°10'00", long 74°01'41", Monmouth County, Hydrologic Unit 02030104, at culvert on F Street at South Belmar, 50 ft upstream of Lake Como, and 0.6 mi upstream of mouth.	.99	1989-92	6-16-92 9-21-92	.50 .63
		Wreck Pond Brook basin				
01407806	Hannabrand Brook at Old Mill Road, near Spring Lake Heights, NJ	Lat 40°08'29", long 74°03'43", Monmouth County, Hydrologic Unit 02030104, at bridge on Old Mill Road, 300 ft upstream of mouth, and 1.0 mi southwest of Spring Lake Heights.	3.13	1989-92	6-16-92 9-21-92	2.0 1.9
		Mullica River basin				
01409375	Mullica River near Atco, NJ	Lat 39°47'08", long 74°51'38", Camden County, Hydrologic Unit 02040301, on left bank of small lake 50 ft downstream from bridge on Jackson-Medford Road, 0.7 mi north of intersection of State Route 534 with Jackson-Medford Road, and 1.6 mi east of Atco.	3.22	1974-85, 1991-92	10-25-91 11-07-91 12-20=91 1-22-92 2-28-92 3-17-92 4-07-92 5-21-92 6-16-92 7-15-92 8-11-92	.97 2.2 2.0 1.4 2.1 1.5 1.6 .82 1.1 .85 .62

Discharge measurements made at low-flow partial-record stations during water year 1992--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Mullica River basin--Continued				
01409401	Hays Mill Creek at Atco, NJ	Lat 39°45'32", long 74°53'02", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30, at outlet of Atco Lake in Atco, and 3.3 mi southeast of Berlin.	3.80	1979, 1991-92	10-25-91	2.0
					11-07-91	2.3
					12-20-91	2.4
					1-22-92	2.0
					2-28-92	2.3
					3-17-92	2.2
					4-07-92	2.4
					5-21-92	2.5
					6-16-92	2.5
					7-15-92	2.0
					8-11-92	2.6
01409402	Hays Mill Creek near Chesilhurst, NJ	Lat 39°45'02", long 74°50'28", Camden County, Hydrologic Unit 02040301, at bridge on Tremont Avenue in Wharton State Forest, 0.3 mi northeast of Burnt Mill Road and 2.0 mi northeast of Chesilhurst.	7.13	1974-77, 1991-92	10-25-91	7.7
					11-07-91	5.9
					12-20-91	9.3
					1-22-92	7.3
					2-28-92	9.1
					3-17-92	7.6
					4-07-92	7.9
					5-21-92	8.5
					6-16-92	7.9
					7-15-92	6.6
					8-11-92	7.6
0140940250	Cooper Branch near Atco, NJ	Lat 39°44'44", long 74°50'25", Camden County, Hydrologic Unit 02040301, at bridge on Burnt Mill Road, 700 ft upstream from mouth, 1.6 mi northeast of Waterford Works, and 2.8 mi southeast of Atco.	1.93	1991-92	10-28-91	1.0
					11-08-91	.13
					12-20-91	1.4
					1-22-92	1.0
					2-28-92	1.5
					3-17-92	1.3
					4-08-92	1.4
					5-21-92	1.2
					6-16-92	1.1
					7-15-92	.90
					8-11-92	.17
0140940310	Wildcat Branch near Chesilhurst, NJ	Lat 39°44'20", long 74°49'58", Camden County, Hydrologic Unit 02040301, at bridge on Burnt Mill Road, 0.1 mi downstream from outlet of Beaverdam Lake, 1.4 mi northeast of Waterford Works, and 1.9 mi east of Chesilhurst.	2.27	1991-92	10-28-91	.07
					11-08-91	.87
					12-20-91	2.1
					1-22-92	1.9
					2-28-92	2.1
					3-17-92	1.8
					4-08-92	1.2
					5-21-92	1.2
					6-16-92	1.1
					7-15-92	1.2
					8-11-92	1.3
0140940365	Sleeper Branch Diversion (Saltars Ditch) near Atsion, NJ	Lat 39°43'48", long 74°46'09", Camden County, Hydrologic Unit 02040301, at bridge on Burnt House Road, 600 ft downstream of Sleeper Branch, and 2.3 mi west of Atsion.	---	1991-92	10-28-91	2.1
					11-08-91	1.6
					12-20-91	3.2
					1-22-92	2.0
					2-28-92	3.4
					3-17-92	2.2
					4-08-92	2.6
					5-21-92	1.9
					6-16-92	2.5
					7-15-92	1.7
					8-11-92	1.9
0140940370	Sleeper Branch near Chesilhurst, NJ	Lat 39°43'42", long 74°46'12", Camden County, Hydrologic Unit 02040301, at bridge on Burnt House Road, 500 ft downstream of Sleeper Branch Diversion (Saltars Ditch) and 2.3 mi west of Atsion.	16.1	1991-92	10-28-91	12
					11-08-91	10
					12-20-91	17
					1-22-92	12
					2-28-92	17
					3-17-92	14
					4-08-92	17
					5-21-92	13
					6-16-92	15
					7-15-92	12
					8-11-92	13
0140940480	Clark Branch near Atsion, NJ	Lat 39°42'58", long 74°46'25", Camden County, Hydrologic Unit 02040301, at abandoned railroad bridge, 0.2 mi downstream of Price Branch and 2.8 mi west of Atsion.	6.42	1991-92	10-28-91	.31
					11-08-91	.14
					12-20-91	2.7
					1-22-92	1.0
					2-28-92	3.1
					3-17-92	2.1
					4-08-92	2.0
					5-21-92	1.0
					6-16-92	3.2
					7-15-92	.66
					8-11-92	2.6

Discharge measurements made at low-flow partial-record stations during water year 1992--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Mullica River basin--Continued				
01409408	Pump Branch near Waterford Works, NJ	Lat 39°42'53", long 74°46'25", Camden County, Hydrologic Unit 02040301, at bridge on Old Whitehorse Pike, 0.5 mi downstream from lake at Camp Ha-Lu-Wa-Sa, and 1.6 mi south of Waterford Works.	9.78	1991-92	10-28-91	6.4
					11-07-91	4.2
					12-20-91	7.7
					1-22-92	7.1
					2-28-92	8.4
					3-17-92	6.8
					4-07-92	6.9
					5-21-92	7.3
					6-16-92	6.2
					7-15-92	6.6
					8-11-92	6.1
0140940950	Blue Anchor Brook at Elm, NJ	Lat 39°40'11", long 74°50'06", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30 (Whitehorse Pike) at Elm, at outlet of unnamed lake, and 1.4 mi upstream of confluence with Pump Branch.	4.86	1991-92	10-25-91	.99
					11-07-91	2.0
					12-20-91	1.6
					1-22-92	1.2
					2-28-92	1.1
					3-17-92	1.1
					4-07-92	1.8
					5-21-92	2.2
					6-16-92	2.1
					7-15-92	.99
					8-11-92	2.6
0140940970	Albertson Branch near Elm, NJ	Lat 39°41'34", long 74°48'24", Camden County, Hydrologic Unit 02040301, at bridge on Fleming Pike, 0.4 mi downstream from confluence of Blue Anchor Brook and Pump Branch, and 1.6 mi northeast of Elm.	17.1	1991-92	10-28-91	14
					11-08-91	11
					12-20-91	14
					1-22-92	14
					2-28-92	18
					3-17-92	14
					4-08-92	14
					5-21-92	15
					6-16-92	15
					7-15-92	12
					8-11-92	13
0140941050	Great Swamp Branch at Elm, NJ	Lat 39°40'18", long 74°49'31", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30, 0.5 mi southeast of Elm, 1.5 mi north of Rosedale, and 2.4 mi northeast of Winslow.	2.83	1991-92	10-26-91	.45
					11-07-91	.13
					12-20-91	.23
					1-22-92	.14
					2-28-92	.22
					3-17-92	.29
					4-07-92	.21
					5-21-92	.09
					6-16-92	.30
					7-15-92	.21
					8-11-92	.21
01410215	Clarks Mill Stream at Port Republic, NJ	Lat 39°30'23", long 74°30'21", Atlantic County, Hydrologic Unit 02040301, at bridge on State Route 575, 0.5 mi upstream of Mill Pond and 1.0 mi east of Port Republic.	8.61	1986-92	6-15-92	7.9
					9-02-92	6.6
01410225	Morses Mill Stream at Port Republic, NJ	Lat 39°30'48", long 74°30'30", Atlantic County, Hydrologic Unit 02040301, at bridge on State Alternate Route 561 (Moss Mill Road), 0.6 mi upstream of Mill Pond, and 1.2 mi southwest of Port Republic.	8.25	1986-92	6-15-92	4.7
					9-02-92	5.0
		Great Egg Harbor River basin				
01410803	Fourmile Branch at Winslow Crossing, NJ	Lat 39°42'07", long 74°58'11", Camden County, Hydrologic Unit 02040302, at bridge on Andrews Road in Winslow Crossing, 1.4 mi northeast of Williamstown, and 2.1 mi upstream from Great Egg Harbor River.	6.22	1972-80, 1990-92	10-10-91	2.6
					10-30-91	3.4
					11-19-91	3.5
					12-27-91	4.2
					2-06-92	3.6
					5-22-92	3.0
01410810	Fourmile Branch at New Brooklyn, NJ	Lat 39°41'47", long 74°56'25", Camden County, Hydrologic Unit 02040302, on left bank 70 ft upstream from bridge on Malaga Road, 0.3 mi northeast of New Brooklyn, and 0.3 mi upstream from mouth.	7.74	1972-79, 1989-92	10-10-91	3.9
					10-30-91	5.1
					11-19-91	5.5
					12-27-91	6.0
					2-06-92	4.8
					5-22-92	4.9

Discharge measurements made at low-flow partial-record stations during water year 1992--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Great Egg Harbor River basin--Continued				
01410855	Squankum Branch above sewage plant, at Williamstown, NJ	Lat 39°40'39", long 74°58'34", Gloucester County, Hydrologic Unit 02040302, immediately upstream from sewage treatment plant, 1.2 mi southeast of intersection of State Route 42 and New Freedom Road in Williamstown, and 2.1 mi upstream from Hedges Branch.	1.50	1974, 1990-92	10-10-91 11-05-91 11-20-91 12-27-91 2-06-92 5-22-92	0 0 0 0 0 0
01410865	Squankum Branch at Malaga Road, near Williamstown, NJ	Lat 39°40'04", long 74°57'39", Gloucester County, Hydrologic Unit 02040302, at bridge on Malaga Road, 1.0 mi upstream from Hedges Branch, and 2.2 mi east of Williamstown.	3.02	1974, 1990-92	10-09-91 11-05-91 11-20-91 12-27-91 2-06-92 5-22-93	.20 .20 .19 .24 .15 .17
01411035	Hospitality Branch at Blue Bell Road, near Cecil, NJ	Lat 39°38'36", long 74°58'40", 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.	4.51	1990-92	10-09-91 11-05-91 11-20-91 12-27-91 2-06-92 5-22-92	.97 1.2 1.1 1.8 1.6 1.6
01411040	Hospitality Branch near Cecil, NJ	Lat 39°38'36", long 74°56'48", Gloucester County, Hydrologic Unit 02040302, at bridge on unnamed dirt road off of Yardley Road in Friendly Village trailer park, 0.25 mi downstream from Timber Lakes and 0.8 mi south of Cecil.	8.30	1990-92	10-10-91 11-05-91 11-20-91 12-27-91 2-06-92 5-22-92	4.2 7.0 1.9 6.4 5.4 6.2
01411042	Whitehall Branch near Cecil, NJ	Lat 39°38'05", long 74°59'03", Gloucester County, Hydrologic Unit 02040302, at bridge on Malaga Road, 0.3 mi upstream of Sunset Lakes, and 2.2 mi west of Cecil.	2.21	1990-92	10-09-91 11-05-91 11-20-91 12-27-91 2-06-92 5-22-92	.57 .26 .33 .64 .75 1.1
01411047	Whitehall Branch below Victory Lakes, near Cecil, NJ	Lat 30°37'59", long 74°56'51", Gloucester County, Hydrologic Unit 02040302, and bridge on unnamed dirt road off of Yardley Road in Friendly Village trailer park, 800 ft downstream from Victory Lakes, and 1.0 mi south of Cecil.	4.60	1990-92	10-10-91 11-05-91 11-20-91 12-27-91 2-06-92 5-22-92	1.1 1.6 1.5 1.8 1.9 1.7
01411170	Great Egg Harbor River at Mays Landing, NJ	Lat 39°27'13", long 74°44'04", Atlantic County, Hydrologic Unit 02040302, at bridge on Route 559, at outlet of Lake Lenape, and 0.4 mi west of intersection of State Route 50 with U.S. Route 40 in Mays Landing.	205	1988-92	6-15-92	133
01411250	English Creek near Scullville, NJ	Lat 39°22'07", long 74°39'46", Atlantic County, Hydrologic Unit 02040302, at bridge on School House Road, 1.8 mi upstream from State Route 559, at the community of English Creek, and 2.5 mi northwest of Scullville.	3.80	1986-92	6-15-92 9-02-92	2.8 2.6
		Tuckahoe River basin				
01411299	Tarkiln Brook near Head of River, NJ	Lat 39°18'19", long 74°49'47", Cape May County, Hydrologic Unit 02040302, at bridge on State Route 548, 0.3 mi upstream from mouth and 0.7 mi west of Head of river.	7.40	1990-92	10-25-91 12-17-91 3-15-92	1.6 3.8 5.2
01411302	Mill Creek near Steelmantown, NJ	Lat 39°17'03", long 74°47'33", Cape May County, Hydrologic Unit 02040302, at bridge on State Route 557, 0.5 mi upstream of Back Run and 1.3 mi north of Steelmantown.	3.82	1990-91	10-25-91 12-17-91 3-15-92	.54 1.4 2.5

Discharge measurements made at low-flow partial-record stations during water year 1992--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Patcong Creek basin				
01411305	Mill Branch near Northfield, NJ	Lat 39°23'23", long 74°35'37", Atlantic County, Hydrologic Unit 02040302, at bridge on County Route Route 684 (Spruce Road), 0.4 mi downstream of Cedar Branch, 1.1 mi south of Cardiff, and 4.5 mi northwest of Northfield.	7.47	1986-92	6-15-92 9-02-92	4.1 4.4
		Mill Creek basin				
01411351	Mill Creek at outlet Magnolia Lake at Ocean View, NJ	Lat 39°10'24, long 74°44'12", Cape May County, Hydrologic Unit 02040302, at bridge on U.S. Route 9, at the outlet of Magnolia Lake, and 0.25 mi south of Ocean View.	2.28	1991-92	10-24-91 12-17-91 3-15-92	1.2 1.3 1.8
		Mill Creek basin				
01411388	Mill Creek at Cold Spring, NJ	Lat 38°58'24", long 74°54'41", Cape May County, Hydrologic Unit 02040302, at culvert under U.S. Route 9, 0.5 mi north of Cold Spring and 1.5 mi south of Erma.	1.34	1991-92	10-24-91 12-17-91 3-16-92	.31 .38 .74
		Fishing Creek basin				
01411400	Fishing Creek at Rio Grande, NJ	Lat 39°01'39", long 74°53'48", Cape May County, Hydrologic Unit 02040206, at bridge on State Route 47, at Wildwood pumping station and 1.4 mi northwest of Rio Grande.	2.29	1965-72, 1990-92	10-25-91 12-17-91 3-16-92	.42 .87 1.4
		Dias Creek basin				
01411408	Dias Creek near Cape May Court House, NJ	Lat 39°04'24", long 74°52'10", Cape May County, Hydrologic Unit 02040302, at culvert on Stagecoach Road, 2.1 mi northwest of Burleigh, 2.4 mi southwest of Cape May Court House and 3.0 mi above mouth.	1.27	1965-73, 1991-92	10-25-91 12-17-91 3-16-92	.28 .61 .87
		Bidwell Creek basin				
01411410	Bidwell Creek tributary near Cape May Court House, NJ	Lat 39°06'34", long 74°50'16", Cape May County, Hydrologic Unit 02040206, at culvert pipe on Goshen Road, 2.0 mi northwest of Cape May Court House and 3.6 mi upstream from mouth.	.41	1967-72, 1990-92	10-25-91 12-17-91 3-16-92	.05 .15 .23
		Goshen Creek basin				
01411418	Goshen Creek at Goshen, NJ	Lat 39°07'39", long 74°50'45", Cape May County, Hydrologic Unit 02040206, at culvert pipe on Goshen Road, 1.0 mi southeast of Goshen and 3.3 mi upstream from mouth.	.33	1967-72, 1990-92	10-25-91 12-17-91 3-15-92	0 .03 .18
		Dennis Creek basin				
01411428	Dennis Creek tributary No. 2 at outlet of Johnson Pond, at Dennisville, NJ	Lat 39°11'34", long 74°49'33", Cape May County, Hydrologic Unit 02040206, at outlet of Johnson Pond, on State Route 47, and 0.1 mi west of Dennisville.	4.00	1990-92	10-25-91 12-16-91 3-15-91	1.1 2.6 3.8
01411434	Sluice Creek at outlet of Clint Millpond near South Dennis, NJ	Lat 39°09'21", long 74°49'06", Cape May County, Hydrologic Unit 02040206, at outlet of Clint Millpond, 1.6 mi south of the intersection of State Routes 47 and 83 at South Dennis, and 2.7 mi west of Cedar Grove.	8.47	1991-92	10-24-91 12-17-91 3-15-92	1.4 6.5 8.0
01411438	Dennis Creek tributary No. 1 near Dennisville, NJ	Lat 39°11'41", long 74°50'30", Cape May County, Hydrologic Unit 02040206, at outlet of Ludlams Pond, on State Route 47, 1.1 mi west of Dennisville.	2.74	1990-92	10-25-91 12-16-91 3-15-92	.14 1.3 2.3

Discharge measurements made at low-flow partial-record stations during water year 1992--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		East Creek basin				
01411442	East Creek near Eldora, NJ	Lat 39°13'21", long 74°53'12", Cape May County, Hydrologic Unit 02040206, at outlet of East Creek Pond, on East Creek Mill Road, 1.2 mi northeast of Eldora.	8.10	1990-92	10-24-91 12-16-91 3-16-92	1.8 3.3 5.5
		West Creek basin				
01411445	West Creek at outlet of Pickle Factory Pond, near Eldora, NJ	Lat 39°13'39", long 74°54'48", Cape May County, Hydrologic Unit 02040206, at bridge on State Route 548, 0.3 mi upstream from mouth and 0.9 mi north of Eldora.	11.9	1990-92	10-25-91 12-17-91 3-15-92	3.4 7.6 11
		Maurice River basin				
01411460	Scotland Run near Williamstown, NJ	Lat 39°41'34", long 75°02'28", Gloucester County, Hydrologic Unit 02040206, at bridge on U.S. Route 322, 2.0 mi upstream of Wilson Lake, and 2.7 mi west of Williamstown.	3.96	1966, 1990-92	10-10-91 10-30-91 11-19-91 12-27-91 2-06-91 5-22-92	1.8 2.2 1.8 2.5 2.4 2.3
01411461	Scotland Run at Fries Mill, NJ	Lat 39°39'21", long 75°02'28", Gloucester County, Hydrologic Unit 02040206, at bridge on Clayton-Williamstown Road at Fries Mill, at outlet of Wilson Lake, and 2.2 mi east of Clayton.	9.25	1990-92	10-10-91 10-30-91 11-19-91 12-27-91 2-06-92 5-22-92	5.7 5.7 1.5 7.0 5.7 6.4
01411880	Maurice River at Sharp Street, at Millville, NJ	Lat 39°24'01", long 75°05'15", Cumberland County, Hydrologic Unit 02040206, at bridge on Sharp Street, 200 ft downstream from Union Lake, and 0.9 mi northwest of Millville.	216	1973-76, 1988-92	12-26-91 2-12-92 4-30-92 7-13-92	202 143 170 130
		Delaware River basin				
01443260	East Branch Paulins Kill tributary no. 2 near Woodruffs Gap, NJ	Lat 41°03'42", long 74°39'37", Sussex County, Hydrologic Unit 02040105, at culvert on private road, 0.4 mi upstream from bridge on Houses Corner Road and 0.7 mi south of Woodruffs Gap.	2.81	1992	9-18-92	.50
01443275	East Branch Paulins Kill tributary no. 1 near Lafayette, NJ	Lat 41°04'12", long 74°40'43", Sussex County, Hydrologic Unit 02040105, at culvert on abandoned railroad bed, 0.5 mi upstream of mouth, 1.2 mi west of Woodruffs Gap, and 2.0 mi south of Lafayette.	1.81	1992	8-26-92 9-18-92	.04 .02
01443510	Blairs Creek at Blairstown, NJ	Lat 40°59'12", long 74°57'35", Warren County, Hydrologic Unit 02040105, at bridge on Mill Brook Road, at Blairstown, 300 ft upstream from Blair Lake, 0.4 mi upstream of mouth, and 1.2 mi east of Jacksonburg.	13.1	1989-92	6-16-92 9-02-92	13 4.1
01445200	Bear Creek near Johnsonburg, NJ	Lat 40°56'35", long 74°52'31", Warren County, Hydrologic Unit 02040105, at bridge on Bear Creek Road, 1.8 mi upstream of Trout Brook, and 1.5 mi south of Johnsonburg.	12.9	1940-42, 1987-92	6-16-92 9-02-92	12 6.1
01445520	Mountain Lake Brook near Pequest, NJ	Lat 40°51'11", long 74°59'09", Warren County, Hydrologic Unit 02040105, at bridge on Lake Drive South, at outlet of Mountain Lake, 1.5 mi north of Pequest and 1.7 mi upstream of mouth.	4.35	1991-92	6-15-92 9-03-92	6.2 .74
01446520	Pophandusing Brook at Belvidere, NJ	Lat 40°49'14", long 75°04'37", Warren County, Hydrologic Unit 02040105, at bridge on Knowlton Street, at Belvidere, 0.5 mi upstream of mouth, and 1.8 mi west of Hazen.	5.36	1991-92	6-16-92 9-02-92	.63 .33

Discharge measurements made at low-flow partial-record stations during water year 1992--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Delaware River basin--Continued				
01446568	Buckhorn Creek at Hutchinson Road, at Hutchinson, NJ	Lat 40°46'18", long 75°07'53", Warren County, Hydrologic Unit 02040105, at bridge on Hutchinson Road at Hutchinson, 50 ft upstream of unnamed tributary, and 800 ft upstream of mouth.	8.38	1991-92	6-16-92 9-02-92	3.1 .97
01455100	Lopatcong Creek at Phillipsburg, NJ	Lat 40°40'38", long 75°10'13", Warren County, Hydrologic Unit 02040105, at bridge on Alt. U.S. Route 22 in Phillipsburg, 100 ft upstream of railroad bridge of the CONRAIL, and 3,000 ft above mouth.	14.2	1958-64, 1991-92	6-18-92 9-03-92	10 7.6
01455230	Merrill Creek at Coopersville, NJ	Lat 40°42'25", long 75°06'54", Warren County, Hydrologic Unit 02040105, at bridge on Lows Hollow Road at Coopersville, 0.9 mi north of Stewartsville, 2.1 mi upstream from mouth, and 3.3 mi east of Phillipsburg.	3.85	1981-92	6-16-92 9-02-92	3.9 3.4
01456080	Mine Brook near Hackettstown, NJ	Lat 40°49'58", long 74°49'23", Morris County, Hydrologic Unit 02040105, at bridge on State Route 517 (Schooleys Mountain Road), 600 ft upstream of mouth and 1.0 mi south of Hackettstown.	4.96	1991-92	6-15-92 9-03-92	2.4 .99
01456210	Hances Brook near Beattystown, NJ	Lat 40°48'17", long 74°51'38", Warren County, Hydrologic Unit 02040105, at bridge on State Route 57, 600 ft upstream of mouth and 1.1 mi southwest of Beattystown.	4.13	1991-92	6-15-92 9-03-92	5.3 2.4
*01464515	Doctors Creek at Allentown, NJ	Lat 40°10'37", long 74°35'57", Monmouth County, Hydrologic Unit 02040201, at bridge on Breza Road, 0.75 mi west of Allentown and 0.8 mi downstream from Conines Mill Pond.	17.2	1966, 1968-72, 1991-92	1-30-92	11
01467130	Cooper River at Kirkwood, NJ	Lat 39°50'11", long 75°00'06", Camden County, Hydrologic Unit 02040202, at outlet of Kirkwood Lake in Kirkwood, 100 ft east of tracks of Pennsylvania-Reading Seashore Lines, and 1.0 mi north of Laurel Springs.	5.10	1964-72, 1988-92	6-15-92 9-02-92	1.3 .69
01467140	Cooper River at Lawnside, NJ	Lat 39°52'14", long 75°00'59", Camden County, Hydrologic Unit 02040202, on right bank at Melrose Avenue, at Lawnside, 300 ft downstream of former Lawnside sewage treatment plant and 0.2 mi upstream of New Jersey Turnpike.	12.7	1964-72, 1988-92	6-15-92 9-02-92	6.8 4.3
01467160	North Branch Cooper River near Marlton, NJ	Lat 39°53'20", long 74°58'08", Burlington County, Hydrologic Unit 02040202, at bridge on Springdale Road, 2.5 mi west of Marlton, and 5.7 mi southwest of Moorestown.	5.34	1965-69, 1971, 1988-92	6-15-92 9-02-92	2.7 1.9
01467180	North Branch Cooper River near Ellisburg, NJ	Lat 39°54'27", long 75°00'42", Camden County, Hydrologic Unit 02040202, at bridge on Brace Road, 0.4 mi south of Ellisburg, and 0.9 mi upstream from confluence with Cooper River.	10.5	1964-69, 1971-72, 1977, 1988-92	6-15-92 9-02-92	5.9 4.4

* Also a crest-stage partial-record station.
a Operated as a continuous-record gaging station by U.S. Geological Survey.

Discharge measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*).

Discharge measurements made at miscellaneous sites during water year 1992

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Hudson River basin				
01367770 Wallkill River	Rondout Creek	Lat 41°11'38", long 74°34'32", Sussex County, Hydrologic Unit 02020007, at bridge on Glenwood Road, 0.6 mi upstream of Papakating Creek, 1.7 mi southwest of Independence Corner, and 2.0 mi southeast of Sussex.	60.8	1977-82, 1985, 1987-91	7-28-92	58
01367910 Papakating Creek	Wallkill River	Lat 41°12'02", long 74°35'59", Sussex County, Hydrologic Unit 02020007, at bridge on State Route 23, 2.6 mi southwest of Independence Corner, and 3.4 mi northeast of McAfee.	59.4	1977-80, 1982, 1985, 1989-91	7-28-92	52
01368000 Wallkill River	Hudson River	Lat 41°15'36", long 74°32'56", Sussex County, Hydrologic Unit 02020007, on right bank on downstream side of bridge on the Bassetts Bridge Road, 0.6 mi upstream from small tributary, 2.0 mi south of the New York-New Jersey state line and 3.0 mi south of Unionville.	140	1938-81a, 1991-92	7-28-92	146
01368950 Black Creek	Pochuck Creek	Lat 41°13'21", long 74°28'33", Sussex County, Hydrologic Unit 02020007, at highway bridge on Maple Grange Road, 0.6 mi upstream of mouth, 0.7 mi northwest of Maple Grange, and 1.7 mi northeast of Vernon.	17.3	1977-86, 1988, 1990-91	7-28-92	24
		Passaic River basin				
01379530 Canoe Brook	Passaic River	Lat 40°45'21", long 74°21'43", Essex County, Hydrologic Unit 02030103, just downstream of New Jersey-American Water Company pumping station, 0.5 mi upstream of mouth, and 2.0 mi north of Summit.	11.0	1933-60b, 1961-91c,	10-01-91 11-14-91 1-15-92 2-20-92 4-02-92 5-13-92 6-23-92 8-13-92	1.0 1.9 19 4.4 13 2.2 1.4 1.9
01379750 Rockaway River	Passaic River	Lat 40°54'12", long 74°34'36", Morris County, Hydrologic Unit 02030103, 500 ft downstream from Main Street at Carpenter Plant, 0.5 mi upstream from Green Pond Brook, and 1.4 mi northwest of Dover.	30.8	1963-66, 1983, 1985-86	d4-25-63 d3-10-64	29 97
01379760 Green Pond Brook	Rockaway River	Lat 40°57'56", long 74°32'04", Morris county, Hydrologic Unit 02030103, at bridge on 24th Street in Picatinny Arsenal, 500 ft upstream of Burnt Meadow Brook, and 3.0 mi north of Mount Hope.	2.92	1963, 1983-84	d4-25-63	.13
01379769 Burnt Meadow Brook	Green Pond Brook	Lat 40°57'52", long 74°31'57", Morris County, Hydrologic Unit 02030103, 100 ft upstream from mouth, in Picatinny Arsenal 1,200 ft downstream of Lake Denmark, and 3.0 mi north of Mount Hope.	4.35	1963, 1983-84	d4-25-63	.18
01379770 Green Pond Brook	Rockaway River	Lat 40°57'49", long 74°32'01", Morris County, Hydrologic Unit 02030103, at culvert on Craine Road in Picatinny Arsenal, 0.1 mi downstream of Burnt Meadow Brook and 0.6 mi upstream of Picatinny Lake.	7.30	1963-64	d4-25-63 @0440 d4-25-63 @1300 d3-11-64	.58 .57 12

Discharge measurements made at miscellaneous sites during water year 1992--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin--Continued				
01379800 Green Pond Brook	Rockaway River	Lat 40°54'15", long 74°34'06", Morris County, Hydrologic Unit 02030103, at bridge on State Route 15, 50 ft west of Mount Pleasant Avenue at Dover and 0.2 mi from mouth.	15.1	1963-64, 1984-86	d4-25-63 d3-10-64	6.8 61
01379880 Rockaway River	Passaic River	Lat 40°54'04", long 74°30'32", Morris County, Hydrologic Unit 02030103, at Conrail railroad bridge at Rockaway, 0.2 mi upstream of bridge at Beach Street and 0.4 mi downstream of Foxs Pond outlet stream.	64.3	1963-64, 1985-86	d4-25-63 d3-10-64	59 339
01380100 Beaver Brook	Rockaway River	Lat 40°54'08", long 74°30'06", Morris County, Hydrologic Unit 02030103, at bridge on Gill Avenue, at Rockaway, and 0.2 mi upstream of the mouth.	22.7	1963-64, 1985-86	d4-25-63 d3-10-64	16 88
01388600 Pompton River	Passaic River	Lat 40°56'36", long 74°16'47", Morris County, Hydrologic Unit 02030103, at bridge on Pompton-Newark Turnpike (State Road 504) 1.2 mi west of Packanack Lake, and 2.0 mi downstream of confluence of Ramapo and Pequannock Rivers.	361	1989-91	8-27-92	106
01389895 Passaic River	Newark Bay	Lat 40°52'45", long 74°07'14", Bergen County, Hydrologic Unit 02030103, at bridge on Outwater Lane at Garfield, 0.4 mi downstream from Dundee Dam and 1.2 mi upstream from bridge on Passaic Street.	806	1970-71, 1986-87	9-24-92	*333
		Raritan River basin				
01396535 South Branch Raritan River	Raritan River	Lat 40°39'49", long 74°53'52", Hunterdon County, Hydrologic Unit 02030105, at bridge on Arch Street in High Bridge, 0.9 mi northeast of Mariannes Corner, and 4.3 mi northeast of Norton.	68.8	1978-81, 1983, 1985-91	8-04-92	62
01396588 Spruce Run	South Branch Raritan River	Lat 40°40'41", long 74°55'06", Hunterdon County, Hydrologic Unit 02030105, 800 ft downstream of Rocky Run, 0.3 mi upstream of bridge on Van Syckel Road, and 1.6 mi southeast of Glen Gardner.	15.5	1979, 1981-83, 1985-91	8-04-92	8.6
01397400 South Branch Raritan River	Raritan River	Lat 40°31'01", long 74°48'10", Hunterdon County, Hydrologic Unit 02030105, at bridge on Main Street in Three Bridges, 1.4 mi downstream from Bushkill Brook, and 3.0 mi northeast of Flemington.	181	1976, 1978-81, 1983, 1985-91	8-04-92	119
01399780 Lamington River	North Branch Raritan River	Lat 40°38'09", long 74°41'13", Somerset County, Hydrologic Unit 02030105, at bridge on Walsh Road at Burnt Mills, 0.2 mi upstream from North Branch Raritan River, and 4.4 mi southwest of Far Hills.	100	1964, 1973, 1975-78, 1981-83, 1985-91	8-25-92	*43
01400360 Peters Brook	Raritan River	Lat 40°34'30", long 74°37'07", Somerset County, Hydrologic Unit 02030105, on downstream side of bridge on Mercer Street, 0.4 mi downstream from Macs Brook and 0.6 mi upstream from Ross Brook.	7.37	---	11-22-91 12-03-91	17 102
01400640 Millstone River	Raritan River	Lat 40°18'48", long 74°35'22", Mercer County, Hydrologic Unit 02030105, at bridge on Cranbury Road, 1.0 mi east of Grovers Mill, 1.8 mi upstream from Cranbury Brook, and 1.8 mi east of Princeton Junction.	42.6	1959-65, 1971-72, 1986-87	9-23-92	20

Discharge measurements made at miscellaneous sites during water year 1992--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Raritan River basin--Continued				
01401400 Heathcote Brook	Millstone River	Lat 40°22'10", long 74°36'59", Middlesex County, Hydrologic Unit 02030105, at bridge on Mapleton Road at former Penn Central railroad bridge, 0.3 mi south of Kingston, and 0.4 mi upstream of mouth.	9.0	1971-72, 1979-84, 1989-91	9-23-92	*3.1
01403200 Middle Brook	Raritan River	Lat 40°33'38", long 74°32'56", Middlesex County, Hydrologic Unit 02030105, at bridge on State Route 533 (Talmadge Avenue/Main Street) at Bound Brook, and 0.5 mi above mouth.	17.2	1955, 1975, 1982-83, 1985-87, 1991	d1-17-91 10-08-91 11-22-91 12-03-91	182 *3.7 22 441
01403570 Stony Brook	Green Brook	Lat 40°37'19", long 74°26'11", Somerset County, Hydrologic Unit 02030105, at bridge on Green Brook Road, in North Plainfield, 100 ft downstream of Crab Brook and 1.4 mi upstream of mouth.	6.88	1975-80	10-03-91 11-22-91 12-03-91	2.3 19 130
01403600 Green Brook	Bound Brook	Lat 40°36'07", long 74°27'28", Somerset County, Hydrologic Unit 02030105, at bridge on Rock Ave. in Plainfield, 0.35 mi north of West Front Street, and 0.65 mi south of State Route 22.	18.2	1972-79	10-08-91 11-22-91 12-03-91	*6.0 59 247
01403900 Bound Brook	Raritan River	Lat 40°35'06", long 74°30'29", Somerset County, Hydrologic Unit 02030105, at bridge on Sebrings Mill Road, 0.4 mi downstream from mouth of Green Brook and 2.3 mi upstream from mouth.	48.4	1972-77a	10-08-91 11-22-91	*14 496
01405340 Manalapan Brook	South River	Lat 40°17'46", long 74°23'53", Middlesex County, Hydrologic Unit 02030105, at bridge on Federal Road, 2.0 mi west of Englishtown, 2.6 mi north of Manalapan, and 3.0 mi downstream from Still House Brook.	20.9	1979-81, 1986-91	9-22-92	*7.8
01408150 South Branch Metedeconk River	Metedeconk River	Lat 40°05'04", long 74°11'01", Ocean County, Hydrologic Unit 02040301, at outlet of Lake Shenandoah, 0.2 mi upstream from New Hampshire Avenue, and 0.8 mi east of Lakewood.	27.5	---	5-21-92 6-11-92 6-23-92 6-25-92 6-30-92 8-18-92	33 *7.6 113 35 28 256
		Mullica River basin				
01409387 Mullica River	Great Bay	Lat 39°44'25", long 74°43'37", Burlington County, Hydrologic Unit 02040301, at bridge on U.S. Route 206 in Atsion, at outlet of Atsion Lake, and 0.2 mi upstream of Wesickaman Creek.	26.7	1975-86, 1989-91	9-29-92	70
01409416 Hammonton Creek	Mullica River	Lat 39°38'02", long 74°43'05", Atlantic County, Hydrologic Unit 02040301, at bridge on Chestnut Road, 0.4 mi south of Wescoatville, and 1.6 mi upstream of Norton Branch.	9.57	1974, 1978-81, 1983, 1985-91	9-24-92	6.5
		Absecon Creek basin				
01410500 Absecon Creek	Absecon Bay	Lat 39°25'45", long 74°31'16", Atlantic County, Hydrologic Unit 02040302, on right bank 30 ft downstream from Doughty Pond Dam of Atlantic City Water Department, 1.0 mi west of Absecon, and 3.4 mi upstream of mouth.	17.9	1923-29c, 1933-38c, 1946-85ae, 1987-90e	6-15-92	0.0

Discharge measurements made at miscellaneous sites during water year 1992--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Great Egg Harbor River basin				
01410784 Great Egg Harbor River	Great Egg Harbor Bay	Lat 39°44'02", long 74°57'05", Camden County, Hydrologic Unit 02040302, at bridge on New Freedom Road in Winslow Township, 0.7 mi northeast of Blackwood-New Brooklyn Road, and 1.5 mi northeast of Sicklerville.	15.1	1971-81, 1985-87, 1989-91	9-24-92	3.0
01411110 Great Egg Harbor River	Great Egg Harbor Bay	Lat 39°30'50", long 74°46'47", 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 of mouth.	154	1978-81, 1985-91	9-24-92	121
		Delaware River basin				
01443440 Paulins Kill	Delaware River	Lat 41°06'20", long 74°45'19", Sussex County, Hydrologic Unit 02040105, at bridge on Kinney Road in Balesville, 2.3 mi upstream from Paulins Kill Lake, and 3.0 mi north of Newton.	67.1	1979-82, 1985, 1988-91	7-28-92	67
01446400 Pequest River	Delaware River	Lat 40°49'45", long 75°04'44", Warren County, Hydrologic Unit 02040105, at bridge on State Route 519, in Belvidere, and 1,400 ft upstream of mouth.	157	1950-53, 1977-82, 1984-91	10-02-91 1-01-92 5-19-92 9-24-92	*56 152 181 82
01455200 Pohatcong Creek	Delaware River	Lat 40°42'57", long 75°04'20", Warren County, Hydrologic Unit 02040105, at bridge on Edison Road, 0.4 mi southeast of New Village, and 4.3 mi upstream of Merrill Creek.	33.3	1960-70a, 1991	5-08-92	*25
01455801 Musconetcong River	Delaware River	Lat 40°55'10", long 74°44'07", Sussex County, Hydrologic Unit 02040105, at bridge on Continental Drive at Lockwood, 0.2 mi downstream from Lubbers Run, and 1.5 mi northwest of Stanhope.	60.1	1979-83, 1985-91	7-28-92	39
01457400 Musconetcong River	Delaware River	Lat 40°35'32", long 75°11'11", Warren County, Hydrologic Unit 02040105, at bridge on County Route 627, at Riegelsville, 0.2 mi north of Mount Joy, and 0.2 mi upstream from mouth.	156	1940-55, 1973, 1977, 1987-91	10-11-91 7-22-92	*74 *119
01457500 Delaware River	Delaware Bay	Lat 40°35'36", long 75°11'17", Warren County, Hydrologic Unit 02040105, just upstream of suspension bridge at Riegelsville, 600 ft upstream from Musconetcong River (flow of which is included in the records for this station since Oct. 1, 1931).	6,328	1906-71a, 1981, 1989	10-11-91	3,340
01467069 North Branch Pennsauken Creek	Pennsauken Creek	Lat 39°57'07", long 74°58'10", Burlington County, Hydrologic Unit 02040202 at bridge on State Route 41 (Kings Highway) and 1.7 mi southwest of Moorestown.	12.8	1975-87, 1990-91	9-29-92	12
01467329 South Branch Big Timber Creek	Big Timber Creek	Lat 39°48'05", long 75°04'27", Gloucester County, Hydrologic Unit 02040202, just upstream from Bull Run, 1,000 ft downstream of Blackwood Avenue, and 0.5 mi southeast of Blackwood Terrace.	19.1	1979-81, 1985-91	9-25-92	13
01477510 Oldmans Creek	Delaware River	Lat 39°41'57", long 75°20'01", Salem County, Hydrologic Unit 02040206, at bridge on Kings Highway in Porches Mill, 1.0 mi north of Seven Stars, and 3.1 mi north of Woodstown.	21.0	1979-83, 1987-91	9-22-92	*7.1

Discharge measurements made at miscellaneous sites during water year 1992--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Delaware River basin--Continued				
01482500 Salem River	Delaware River	Lat 39°38'36", long 75°19'52", Salem County, Hydrologic Unit 02040206, on right end of Memorial Lake Dam at Woodstown, 0.2 mi upstream from small brook, and 0.3 mi downstream from Pennsylvania-Reading Seashore Lines bridge.	14.6	1940a, 1942-84a, 1985-88, 1989a, 1990-91	9-22-92	*3.5

a Operated as continuous-recording gaging station.
b Discharge records published in reports of the New Jersey Department of Environmental Protection.
c Discharge records on file in U.S. Geological Survey Office, West Trenton, New Jersey.
d Not previously published.
e Tidal crest-stage partial-record station.

The following table contains annual maximum elevations for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above mean sea level unless otherwise noted. Only the maximum elevation is given. Information on some other high elevations may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum elevation has been determined.

Maximum elevation at tidal crest-stage partial-record stations

Station name and number	Location	Period of record	Water year 1992 maximum		Period of record maximum	
			Date	Elevation (ft)	Date	Elevation (ft)
Raritan River at Perth Amboy, NJ (01406700)	Lat 40°30'31", long 74°17'30", Middlesex County, Hydrologic Unit 02030105, on upstream left bridge pier of Victory Bridge on State Route 35 in Perth Amboy, 0.5 mi downstream from Garden State Parkway bridge, and 1.5 mi upstream from mouth of Raritan River.	1954, 1967-70†, 1980-92	10-31-91	7.25	11-7-53	9.50
Luppatatong Creek at Keyport, NJ (01407030)	Lat 40°26'08", long 74°12'27", Monmouth County, Hydrologic Unit 02030104, on left bank upstream side of Front Street bridge in Keyport, 2.0 mi northwest of Matawan, and 0.1 mi upstream from mouth.	1980-92	10-31-91	7.41	3-29-84	8.03
Manahawkin Bay near Manahawkin, NJ (01409145)	Lat 39°40'13", long 74°12'54", Ocean County, Hydrologic Unit 02040301, at west end of State Route 72 bridge over Manahawkin Bay, 2.5 mi northwest of Ship Bottom, and 3.1 mi southeast of Manahawkin.	1965-92	10-31-91	5.27	3-29-84	5.36
Little Egg Harbor at Beach Haven, NJ (01409285)	Lat 39°33'10", long 74°15'07", Ocean County, Hydrologic Unit 02040301, in Beach Haven at U.S. Coast Guard station, 6.0 mi southeast of Tuckerton and 7.4 mi southeast of Ship Bottom.	1979-92	10-31-91	5.80	3-29-84	6.19
Batsto River at Pleasant Mills, NJ (01409510)	Lat 39°37'55", long 74°38'40", Ocean County, Hydrologic Unit 02040301, on right bank, 1.0 mi southeast of Pleasant Mills, and 0.5 mi upstream from mouth.	1958-92	10-31-91	5.31	3-07-62	7.2
Mullica River near Port Republic, NJ (01410100)	Lat 39°33'12", long 74°27'46", Atlantic County, Hydrologic Unit 02040301, on right bank on bulkhead piling at south end of U.S. Route 9 and Garden State Parkway bridge over Mullica River, 2.8 mi northeast of Port Republic, and 2.8 mi south of New Gretna.	1962, 1965-92	10-31-91	5.56	3-06-62	7.90
Absecon Creek at Absecon, NJ (01410500)	Lat 39°25'45", long 74°31'16", Atlantic County, Hydrologic Unit 02040302, on right abutment of bridge on Mill Road, 50 ft downstream of former gaging station, 1 mi west of Absecon, and 3.4 mi upstream from mouth.	1923-29†, 1933-38†, 1946-84†, 1985-92	1-04-92	6.50	3-29-84	7.77
Beach Thorofare at Atlantic City, NJ (01410570)	Lat 39°21'56", long 74°26'44", Atlantic County, Hydrologic Unit 02040302, on west abutment south side of AMTRAK railroad swivel bridge in Atlantic City, 0.5 mi northeast of Bader Field airport, and 2.7 mi northeast of Ventnor City.	1944, 1950, 1960, 1962, 1978†, 1969-92	1-04-92	6.70	3-06-62	8.30

Maximum elevation at tidal crest-stage partial-record stations--Continued

Station name and number	Location	Period of record	Water year 1992 maximum		Period of record maximum	
			Date	Elevation (ft)	Date	Elevation (ft)
Tuckahoe River at Head of River, NJ (01411300)	Lat 39°18'25", long 74°49'15", Cape May County, Hydrologic Unit 02040302, downstream right abutment of highway bridge on State Route 49, 0.2 mi upstream from McNeals Branch, 0.4 mi southeast of Head of River, and 3.7 mi west of Tuckahoe.	1979-92†	10-31-91	5.58	3-29-84	7.00
Great Egg Harbor Bay at Ocean City, NJ (01411320)	Lat 39°17'03", long 74°34'41", Cape May County, Hydrologic Unit 02040302, on bulkhead at west end of 7th Street (prior to October 1974, gage was located at 5th Street), Ocean City, and 2.5 mi southeast of Somers Point.	1965-92	1-04-92	7.38	3-29-84	7.53
Great Channel at Stone Harbor, NJ (01411360)	Lat 39°03'26", long 74°45'53", Cape May County, Hydrologic Unit 02040302, on boat-ramp piling near east end of bridge at west end of Boro of Stone Harbor, 3.7 mi southeast of Cape May Court House, and 3.9 mi southwest of Avalon.	1965-92	1-04-92	7.23	3-29-84	7.33
Cohansey River at Greenwich, NJ (01413038)	Lat 39°23"02", long 75°20'58", Cumberland County, Hydrologic Unit 02040206, at Greenwich Pier, 0.7 mi southwest of Greenwich, and 5.8 mi southwest of Shiloh.	1951, 1979-92	1-04-92	6.26	11-25-50	8.80
Delaware River at Marine Terminal, Trenton, NJ (01464040)	Lat 40°11'21", long 74°45'22", Mercer County, Hydrologic Unit 02040202, on left bank at downstream end of wharf at Marine Terminal, Trenton, 1.6 mi downstream from toll bridge on U.S. Route 1, 2.0 mi downstream from Assunpink Creek, and at river mile 131.80.	1921-46†, 1951-55†, 1957-92†a	6-06-92	7.84	8-20-55	17.9

† Operated as a continuous-record gaging station.
a Operated by National Ocean Service since March 1975.

Water-quality partial-record stations are particular sites where chemical-quality, biological and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. These data are collected usually less than quarterly.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKALINITY, CARBONATE IT-FLD (MG/L AS CAC03)	BICARBONATE IT-FLD (MG/L AS HCO3)
HUDSON RIVER BASIN									
01367735 WALLKILL RIVER NEAR HAMBURG NJ (LAT 41 10 02N LONG 074 35 12W)									
JUN 1992 23...	1032	439	8.1	14.0	9.5	94	265	268	327

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
MULLICA RIVER BASIN										
01409375 MULLICA RIVER NR ATCO NJ (LAT 39 47 08N LONG 074 51 38W)										
DEC 1991 20...	1000	2.0	104	6.9	2.0	14.9	106	14	19	4.8
MAR 1992 17...	1030	1.5	101	6.8	4.0	14.9	114	14	21	5.1
JUN 16...	0900	1.1	87	6.6	24.5	8.0	96	25	18	4.4
AUG 11...	1545	0.62	77	6.4	29.0	7.7	101	32	14	3.1
01409401 HAYS MILL CREEK AT ATCO,NJ (LAT 39 45 32N LONG 074 53 02W)										
DEC 1991 20...	1345	2.4	102	6.6	2.5	14.0	101	12	22	4.7
MAR 1992 17...	1430	2.2	88	6.7	7.5	14.7	123	14	20	4.2
JUN 16...	1045	2.5	80	6.6	25.0	7.6	92	21	19	4.1
AUG 11...	0720	2.6	78	6.3	25.0	5.5	67	23	17	3.3
01409402 HAYS MILL C NR CHESILHURST NJ (LAT 39 45 02N LONG 074 50 28W)										
DEC 1991 20...	1200	9.3	90	6.6	2.0	13.0	92	12	16	3.4
MAR 1992 17...	1230	7.6	87	6.5	7.0	14.6	121	14	15	3.3
JUN 16...	1230	7.9	84	6.2	18.0	7.7	81	<10	16	3.4
AUG 11...	1430	7.6	82	6.3	20.5	7.9	89	17	15	3.2
0140940370 SLEEPER BRANCH NEAR ATSION NJ (LAT 39 43 42N LONG 074 46 12W)										
DEC 1991 20...	1515	17	58	6.2	2.5	13.0	94	18	10	1.9
MAR 1992 18...	1200	14	60	6.7	7.5	12.0	100	14	10	2.1
JUN 16...	1700	15	53	6.2	19.5	8.4	91	19	10	1.9
AUG 11...	1230	13	52	6.0	19.0	8.7	95	22	10	1.9

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
01409375 MULLICA RIVER NR ATCO NJ (LAT 39 47 08N LONG 074 51 38W)										
DEC 1991 20...	1.8	9.2	2.5	8.4	11	15	<0.1	3.3	71	53
MAR 1992 17...	1.9	9.6	2.6	5.7	11	15	0.1	1.4	49	50
JUN 16...	1.7	8.6	1.7	9.6	7.9	12	<0.1	1.5	42	44
AUG 11...	1.5	7.7	1.9	7.9	8.1	13	0.1	1.6	60	42
01409401 HAYS MILL CREEK AT ATCO,NJ (LAT 39 45 32N LONG 074 53 02W)										
DEC 1991 20...	2.5	7.6	0.90	9.5	7.1	14	<0.1	6.6	67	49
MAR 1992 17...	2.2	7.4	1.6	7.0	6.4	13	0.1	4.1	49	43
JUN 16...	2.2	7.1	1.3	11	4.5	12	<0.1	0.50	46	38
AUG 11...	2.1	6.9	1.6	12	4.7	14	<0.1	1.1	52	41

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
				MULLICA RIVER BASIN--Continued						
	01409402			HAYS MILL C NR CHESILHURST NJ (LAT 39 45 02N LONG 074 50 28W)						
DEC 1991										
20...	1.8	8.5	1.8	6.7	6.1	14	<0.1	6.3	54	46
MAR 1992										
17...	1.7	8.8	1.8	5.3	5.8	14	<0.1	5.1	41	44
JUN										
16...	1.8	8.2	1.4	8.1	4.5	13	<0.1	4.0	40	41
AUG										
11...	1.7	8.1	1.6	9.9	4.4	14	<0.1	3.8	44	43
	0140940370			SLEEPER BRANCH NEAR ATSION NJ (LAT 39 43 42N LONG 074 46 12W)						
DEC 1991										
20...	1.2	5.1	<0.10	3.8	5.2	8.5	<0.1	5.7	52	--
MAR 1992										
18...	1.2	5.4	1.0	3.5	4.7	8.5	<0.1	3.4	34	28
JUN										
16...	1.2	5.6	1.0	4.0	3.2	8.3	<0.1	4.2	48	28
AUG										
11...	1.2	5.0	1.0	5.8	3.4	8.3	<0.1	4.4	30	29

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
	01409375			MULLICA RIVER NR ATCO NJ (LAT 39 47 08N LONG 074 51 38W)						
DEC 1991										
20...	<0.01	0.80	0.07	0.3	1.1	<0.01	<0.01	4.8	3	0.02
MAR 1992										
17...	<0.01	0.77	0.02	<0.2	--	<0.01	<0.01	4.0	4	0.02
JUN										
16...	<0.01	0.26	0.05	0.4	0.66	<0.01	<0.01	7.9	2	0.01
AUG										
11...	<0.01	0.07	0.03	0.4	0.47	<0.01	<0.01	8.5	1	0.00
	01409401			HAYS MILL CREEK AT ATCO,NJ (LAT 39 45 32N LONG 074 53 02W)						
DEC 1991										
20...	<0.01	1.80	0.10	0.4	2.2	<0.01	<0.01	2.8	2	0.01
MAR 1992										
17...	<0.01	1.20	0.08	0.2	1.4	<0.01	<0.01	2.8	7	0.04
JUN										
16...	<0.01	0.27	0.03	0.4	0.67	<0.01	<0.01	5.6	3	0.02
AUG										
11...	<0.01	0.09	0.03	0.3	0.39	<0.01	<0.01	5.2	1	0.01
	01409402			HAYS MILL C NR CHESILHURST NJ (LAT 39 45 02N LONG 074 50 28W)						
DEC 1991										
20...	<0.01	1.60	0.05	0.3	1.9	<0.01	<0.01	3.7	3	0.08
MAR 1992										
17...	<0.01	1.60	0.02	<0.2	--	<0.01	<0.01	2.4	4	0.08
JUN										
16...	<0.01	1.10	0.05	0.4	1.5	0.05	0.03	3.6	12	0.26
AUG										
11...	<0.01	0.98	0.03	<0.2	--	<0.01	0.01	3.2	1	0.02
	0140940370			SLEEPER BRANCH NEAR ATSION NJ (LAT 39 43 42N LONG 074 46 12W)						
DEC 1991										
20...	<0.01	0.81	0.04	0.3	1.1	<0.01	<0.01	4.7	1	0.05
MAR 1992										
18...	<0.01	0.97	0.02	<0.2	--	0.02	<0.01	3.0	3	0.11
JUN										
16...	<0.01	0.68	0.03	0.2	0.88	<0.01	0.02	5.2	6	0.24
AUG										
11...	<0.01	0.68	0.03	<0.2	--	<0.01	0.02	4.2	1	0.03

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MULLICA RIVER BASIN--Continued										
0140940480 CLARK BRANCH NEAR ATSION NJ (LAT 39 42 53N LONG 074 46 25W)										
DEC 1991 20...	1330	2.7	66	--	0.5	9.7	66	21	15	3.0
MAR 1992 17...	1630	2.1	71	--	2.0	11.6	85	19	12	2.5
JUN 16...	1745	3.2	36	4.9	19.0	5.2	55	33	7	1.6
AUG 11...	1145	2.6	37	5.0	20.0	5.7	63	44	8	1.7
01409408 PUMP BRANCH NEAR WATERFORD WORKS NJ (LAT 39 41 59N LONG 074 50 40W)										
DEC 1991 20...	1530	7.7	73	6.7	2.0	13.0	92	16	16	2.7
MAR 1992 17...	1615	6.8	77	6.4	6.5	13.8	113	16	15	2.7
JUN 16...	1435	6.2	70	6.4	25.5	6.4	78	15	17	2.9
AUG 11...	0815	6.1	69	6.2	24.0	3.5	42	32	15	2.7
0140940950 BLUE ANCHOR BROOK AT ELM NJ (LAT 39 40 11N LONG 074 50 06W)										
DEC 1991 20...	0930	1.6	66	--	1.5	13.7	96	--	12	2.6
MAR 1992 17...	1100	1.1	80	--	4.5	--	--	15	12	2.8
JUN 16...	1200	2.1	59	6.5	26.0	7.2	88	23	12	2.8
AUG 11...	0920	2.6	55	6.3	27.0	7.2	91	30	12	2.7
0140940970 ALBERTSON BRANCH NEAR ELM NJ (LAT 39 41 34N LONG 074 48 24W)										
DEC 1991 20...	1230	14	70	--	2.0	12.1	86	16	15	2.8
MAR 1992 17...	1400	14	71	6.8	6.5	11.7	96	15	14	2.8
JUN 16...	1530	15	61	6.3	23.5	7.1	83	13	15	2.8
AUG 11...	1030	13	63	6.2	21.5	6.8	78	49	14	2.8

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
0140940480 CLARK BRANCH NEAR ATSION NJ (LAT 39 42 53N LONG 074 46 25W)										
DEC 1991 20...	1.8	2.8	1.0	1.5	12	5.6	<0.1	9.3	52	36
MAR 1992 17...	1.4	2.8	0.80	1.6	9.4	5.1	<0.1	5.2	35	28
JUN 16...	0.85	2.8	0.90	1.6	3.1	5.1	<0.1	4.4	52	20
AUG 11...	0.85	2.4	0.90	3.3	2.5	4.9	0.1	5.9	43	21
01409408 PUMP BRANCH NEAR WATERFORD WORKS NJ (LAT 39 41 59N LONG 074 50 40W)										
DEC 1991 20...	2.2	5.7	1.6	8.1	4.5	10	<0.1	3.8	54	35
MAR 1992 17...	2.1	6.8	1.8	6.5	4.0	12	<0.1	3.0	30	36
JUN 16...	2.3	5.9	1.2	13	2.9	9.6	<0.1	3.1	70	36
AUG 11...	2.1	5.9	1.4	12	3.3	11	<0.1	3.4	28	37

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
MULLICA RIVER BASIN--Continued										
0140940950 BLUE ANCHOR BROOK AT ELM NJ (LAT 39 40 11N LONG 074 50 06W)										
DEC 1991 20...	1.3	5.5	1.5	8.3	7.9	7.9	<0.1	3.7	44	35
MAR 1992 17...	1.3	6.5	1.4	8.0	6.9	10	<0.1	1.9	34	36
JUN 16...	1.3	5.6	1.3	11	3.9	7.2	<0.1	3.1	48	32
AUG 11...	1.3	4.6	1.4	9.4	5.7	6.6	0.1	1.2	31	29
0140940970 ALBERTSON BRANCH NEAR ELM NJ (LAT 39 41 34N LONG 074 48 24W)										
DEC 1991 20...	1.9	5.0	1.7	6.7	6.6	9.3	<0.1	4.8	49	36
MAR 1992 17...	1.8	5.4	1.3	5.2	6.0	9.9	<0.1	3.7	31	34
JUN 16...	2.0	5.2	1.3	9.3	4.4	8.1	<0.1	3.0	38	32
AUG 11...	1.8	4.9	1.4	10	4.9	8.6	<0.1	3.6	34	34

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
0140940480 CLARK BRANCH NEAR ATSION NJ (LAT 39 42 53N LONG 074 46 25W)										
DEC 1991 20...	<0.01	0.062	0.05	0.3	0.36	<0.01	<0.01	6.8	3	0.02
MAR 1992 17...	<0.01	0.09	0.02	0.5	0.59	<0.01	--	5.3	2	0.01
JUN 16...	<0.01	<0.05	0.06	0.4	--	<0.01	<0.01	13	4	0.03
AUG 11...	0.01	0.077	0.06	0.6	0.68	<0.01	<0.01	14	1	0.01
01409408 PUMP BRANCH NEAR WATERFORD WORKS NJ (LAT 39 41 59N LONG 074 50 40W)										
DEC 1991 20...	<0.01	1.00	0.06	0.3	1.3	<0.01	<0.01	4.2	2	0.04
MAR 1992 17...	<0.01	1.30	0.05	0.2	1.5	<0.01	<0.01	2.5	6	0.11
JUN 16...	<0.01	0.29	0.07	0.3	0.59	<0.01	<0.01	5.7	7	0.12
AUG 11...	<0.01	0.22	0.06	0.4	0.62	0.01	<0.01	5.8	2	0.03
0140940950 BLUE ANCHOR BROOK AT ELM NJ (LAT 39 40 11N LONG 074 50 06W)										
DEC 1991 20...	<0.01	0.26	0.12	0.5	0.76	0.04	0.01	--	5	0.02
MAR 1992 17...	<0.01	0.27	0.26	0.5	0.77	0.03	<0.01	2.3	5	0.02
JUN 16...	<0.01	<0.05	0.17	0.7	--	0.05	0.03	7.5	--	--
AUG 11...	<0.01	<0.05	0.02	0.4	--	0.03	<0.01	5.7	2	0.01
0140940970 ALBERTSON BRANCH NEAR ELM NJ (LAT 39 41 34N LONG 074 48 24W)										
DEC 1991 20...	<0.01	0.96	0.07	0.2	1.2	<0.01	<0.01	3.1	2	0.08
MAR 1992 17...	<0.01	1.1	0.03	<0.2	--	<0.01	<0.01	2.2	1	0.04
JUN 16...	<0.01	0.37	0.05	0.4	0.77	<0.01	0.02	5.3	--	--
AUG 11...	<0.01	0.29	0.03	0.3	0.59	<0.01	<0.01	4.7	3	0.11

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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