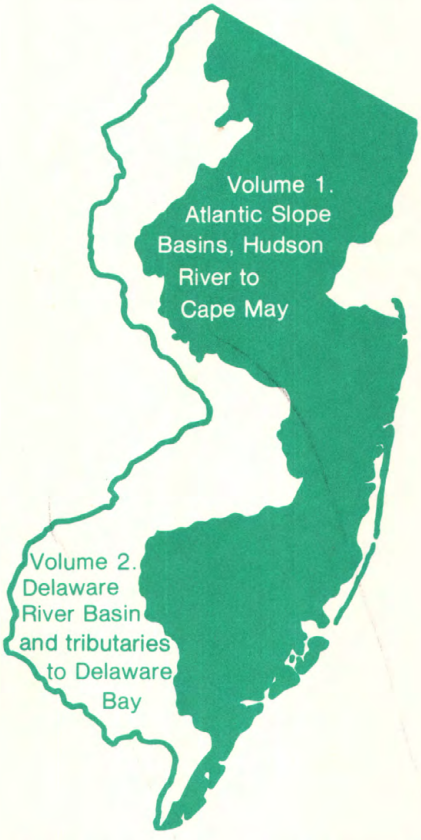
Water Resources Data New Jersey Water Year 1985

Volume 1. Atlantic Slope Basins Hudson River to Cape May



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-85-1
Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies

CALENDAR FOR WATER YEAR 1985

1984

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United States Department of the Interior

GEOLOGICAL SURVEY

Water Resources Division
Mountain View Office Park
810 Bear Tavern Road, Suite 206
West Trenton, New Jersey 08628

I am pleased to announce the release of our Annual Report, "Water Resources Data for New Jersey, Water Year 1985". This report was prepared by the U.S. Geological Survey, in cooperation with the State of New Jersey and several local and federal government agencies.

Once again this year, the report is issued in two volumes:

Volume 1.--Atlantic Slope Basins, Hudson River to Cape May.
Volume 2.--Delaware River Basin and tributaries to Delaware Bay.

The report contains records of stream discharge and water-quality measurements, elevations of lakes and reservoirs, major water-supply diversions, and tidal elevations. Also included are records of sediment concentrations and records of ground-water quality and ground-water levels. Special sections are devoted to low-flow and crest-stage data and summaries of tidal crest elevations in the New Jersey estuaries and intracoastal waterways.

This year the summary of hydrologic conditions has been expanded to include the results of several projects recently completed by the New Jersey District. Also included are listings of current project titles and reports recently published by the district.

Copies of this report in paper or microfiche are for sale through the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161. When ordering, refer to U.S. Geological Survey Water-Data Report NJ-85-1 (for volume 1) and NJ-85-2 (for volume 2). For further information on this report, or to change or remove your address from our mailing list, please contact me at the above address or telephone [609] 771-3900.

Sincerely,

William R. Bauersfeld

William R. Bauersfeld, Chief
Hydrologic Data Assessment Program

Water Resources Data New Jersey Water Year 1985

Volume 1. Atlantic Slope Basins, Hudson River to Cape May

by W.R. Bauersfeld, E.W. Moshinsky, E.A. Pustay, and W.D. Jones

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-85-1
Prepared in cooperation with the New Jersey
Department of Environmental Protection
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in New Jersey write to

District Chief, Water Resources Division
U.S. Geological Survey
Mountain View Office Park
810 Bear Tavern Road, Suite 206
West Trenton, New Jersey 08628

1986

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. Atlantic Slope Basins, Hudson River to Cape May
Volume 2. Delaware River Basin and tributaries to Delaware Bay

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.

Eugene Dorr	Eric Jacobson
Mark A. Hardy	Robert D. Schopp

I.C. Heerwagen and D.C. Gilliom word processed the text of the report, and G.L. Simpson drafted the illustrations.

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

J.B. Campbell	R.S. Cole	C.E. Gurney	M.D. Philips	R. Rossman
J.P. Campbell	M.J. DeLuca	J.T. Fisher	R.G. Reiser	F.L. Schaefer
G.L. Centinaro	J.F. Dudek	J.E. May	E. Rodgers	A.J. Velnich

This report was prepared in cooperation with the State of New Jersey and with other agencies under the general supervision of Mark A. Ayers, Associate District Chief for Hydrologic Data Assessment and Information Management; Donald E. Vaupel, District Chief, New Jersey; and Stanley P. Sauer, Regional Hydrologist, Northeastern Region.

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7. Author(s) W. R. Bauersfeld, E. W. Moshinsky, E. A. Pustay, W. D. Jones			8. Performing Organization Rept. No. USGS-WDR-NJ-85-1
9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division Mountain View Office Park 810 Bear Tavern Road, Suite 206 West Trenton, New Jersey 08628			10. Project/Task/Work Unit No. 11. Contract(C) or Grant(G) No. (C) (G)
12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division Mountain View Office Park 810 Bear Tavern Road, Suite 206 West Trenton, New Jersey 08628			13. Type of Report & Period Covered Annual - Oct. 1, 1984 to Sept. 30, 1985 14.

15. Supplementary Notes

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

16. Abstract (Limit: 200 words)

Water Resources data for the 1985 water year for New Jersey consist 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 79 gaging stations; tide summaries for 1 station; stage and contents for 15 lakes and reservoirs; water quality for 60 surface-water sites and 194 wells; and water levels for 36 observation wells. Also included are data for 44 crest-stage partial-record stations, 16 tidal crest-stage gages, and 42 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. 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.

17. Document Analysis a. Descriptors

*New Jersey, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water Levels, Water Analyses.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement: No restriction on distribution. This report may be purchased from: National Technical Information Service, Springfield, VA 22161	19. Security Class (This Report) Unclassified	21. No. of Pages 327
	20. Security Class (This Page) Unclassified	22. Price

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OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

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ILLUSTRATIONS

TABLES

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

GROUND-WATER LEVEL RECORDS

QUALITY OF GROUND-WATER RECORDS

WATER RESOURCES DATA - NEW JERSEY, 1985

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 22 gaging stations; tide summaries at 3 gaging stations; stage and content at 18 lakes and reservoirs; water quality at 30 surface-water stations and 96 wells; and water levels at 23 observation wells. Records included for ground-water levels are only a part of those obtained during the year. Also included are data for 28 crest-stage partial-record stations and stage only at 8 tidal crest-stage gages. Locations of these sites are shown on figures 7, 8, 9, and 10. Additional water data were collected at various sites not involved in the systematic data-collection program. Discharge measurements were made at 8 low-flow partial-record stations. Miscellaneous data were collected at 14 measuring sites. These data 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. Beginning with the 1975 water year, 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.

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 Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

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-85-2." 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.

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.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

New Jersey Department of Environmental Protection, Richard T. Dewling, Commissioner.
Division of Water Resources, George McCann, Acting Director.
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.
County of Bergen, Edward R. Ranuska, director of Public Works and County Engineer.
County of Camden, Barton Harrison, Chairman of Camden County Planning Board.
County of Morris, James Plante, Chairman of Morris County Municipal Utilities Authority.
County of Somerset, Thomas E. Decker, County Engineer, and Thomas Harris, Administrative Engineer.
Township of West Windsor, Larry Ellery, Chairman of Environmental Commission.

Assistance in the form of funds was given by the U.S. Army Corps of Engineers, in collecting records for 25 surface water stations, and by the U.S. Army Armament Research and Development Center for the collection of records at 3 surface-water stations and two water-quality monitoring stations. In addition, several stations were operated fully or partially from funds appropriated directly to the Geological Survey. Assistance was also furnished 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 Co.; Commonwealth Water Co.; Elizabethown Water Co.; Ewing-Lawrence Sewerage Authority; Hackensack Water Co.; Johns-Manville Products Corp.; Monmouth Consolidated Water Co.; and Jersey Central Power and Light Co.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

Water year 1985 was a very dry year. Precipitation ranged from 36.9 inches (68 percent of normal) in the north to 30.6 inches (57 percent of normal) in the south. Streamflow was at its lowest since the drought year of 1966 in the northern and central parts of the State. Flow in the southern and coastal regions was at its lowest since 1981. New Jersey reservoir content decreased to 49.7 billion gallons (66 percent of capacity) by the end of April, when the reservoirs normally would be spilling. Many communities declared drought emergencies, and restrictions were made on water use.

The 1985 water year began with streamflow about normal throughout the State. However, streamflow decreased steadily until, by the end of January, runoff was deficient by 3.05 inches in the north and by 2.08 inches in the south. Warming trends and some small storms in February slowed the decrease, but below-normal precipitation in March and April resulted in a runoff deficiency of more than 9 inches by the end of April. The monthly streamflow for April was the lowest on record, as reflected by the index stations. Drought warnings were issued, and by late spring, restrictions on water use were put into effect. The decreasing streamflow trend was finally halted when a series of storms on May 3, 18, and 22, resulted in above-normal precipitation for the month. During June, July, and August, streamflow was at or slightly above normal in the north and about 80 percent of normal in the south. September precipitation was only about one-half inch for the first 26 days, except for some localized storms. On September 27, Hurricane Gloria moved up the coast of New Jersey, the eye passed about 60 miles off the coast. Heavy precipitation was recorded on the fringes of the storm; 5.3 inches were reported in Lambertville and in Moorestown on the 27th. Most inland communities had more than 5 inches of precipitation for the period Sept. 27-28. Coastal areas recorded less than 2 inches of rainfall for the storm. Final September precipitation was 180 percent of normal inland, but was only about normal along the coast. Excessive streamflow from the storm Gloria caused a September mean flow of about 120 percent of normal Statewide.

Streamflow at the index station for northern New Jersey (South Branch Raritan River near High Bridge) averaged 84.7 ft^3/s for the water year; this flow is 69 percent of the 67-year average. Streamflow at the index station for southern New Jersey (Great Egg Harbor River at Folsom) averaged 60.4 ft^3/s for the water year; this flow is 70 percent of the 60-year average. The observed annual mean discharge of the Delaware River at Trenton was 6,365 ft^3/s, which is 54 percent of normal. The Delaware River is highly regulated by reservoirs and diversions. The natural flow at Trenton (adjusted for upstream storage and diversions) was 85 percent of normal for the year. Figures 1 and 2 compare the monthly and annual discharges with past records at these index gaging stations.

Storage in the 13 major water-supply reservoirs in New Jersey increased from 63.5 billion gallons (84 percent of capacity) on October 1, 1984, to 63.6 billion gallons (84 percent of capacity) on September 30, 1985. Storage in Wanaque Reservoir decreased from 24.3 billion gallons (87 percent of capacity) on October 1, 1984, to 23.5 billion gallons (84 percent of capacity) on September 30, 1985. Pumped storage in Round Valley Reservoir, the largest capacity in the State, increased from 47.4 billion gallons (86 percent of capacity) on October 1, 1984, to 48.4 billion gallons (88 percent of capacity) on September 30, 1985.

Water Quality

Low precipitation during the year reduced the ability of streams to dilute concentrations of dissolved substances, resulting in increased concentrations of dissolved solids in many streams for most of the year. Specific conductance, which is directly related to dissolved-solids concentration, has been monitored continuously at selected sites in the state for several years. Figure 3 compares specific conductance at two sites monitoring drainage from large areas of north (Passaic River at Little Falls) and central (Delaware River at Trenton) New Jersey for 1985, 1984 (a year having above-normal precipitation), and the average for the last 4 years. The high values of specific conductance were noticeable during most of 1985. Such periods are often accompanied by higher concentrations of undesirable substances, such as trace elements, organic compounds, nutrients, bacteria, and nuisance aquatic organisms.

The occurrence and distribution of toxic materials in aquatic environments is a topic of national concern. Because of low solubility in water, many of these materials are commonly present in or on inorganic and organic stream-bottom materials in higher concentrations than present in the water itself. As a result, analysis of stream-bottom samples may be a better indication of the presence of toxic materials in aquatic systems than indicated by an analysis of the water.

A number of toxic materials seem to be widespread at low to moderate concentrations throughout New Jersey. The organochlorine compounds chlordane, DDT (and its decomposition products DDD and DDE), and PCB's are commonly detected in stream bottoms of the State. Chlordane is a widely used

pesticide; DDT was a common pesticide, but the production and use of DDT in the United States has been banned since 1972. PCB's have been used in many industrial and mechanical items, but their use has been restricted to environmentally closed systems (for example, electrical capacitors and transformers) since 1971. All of these compounds are persistent and are still found in the aquatic environment. Common sources include industrial and municipal effluents, landfills and other soil disposal sites, and incineration of material containing PCB's (Natural Resources Council, 1979).

Samples of bottom materials from New Jersey streams have been analyzed for toxic substances for many years. Figure 4 shows the occurrence of chlordane, DDT, DDD, DDE and PCB's, in New Jersey stream-bottom materials for 1976-85. Only those sites were included for which water-quality data are presented in either volume of this report. At some sites, more than one sample was collected during a particular water year. The locations of water-quality sites selected are shown in figure 7. Figure 4 includes the percentage of samples collected in which at least one compound exceeded a concentration of 20 micrograms per kilogram--a level selected to include the highest 15 to 20 percent of values nationwide (J.S. Cragwall Jr., written commun., 1977).

A current study in the Atlantic City area has focused on the effects of large ground-water withdrawals on the quality of water from the Atlantic City 800-foot sand of the Kirkwood Formation (Paulachok and others, 1985). This pumping has created an extensive cone of depression and has heightened the potential for contamination by intruding seawater. Water from 70 wells onshore and from two marine observation wells located 1.9 and 5.3 miles offshore of Atlantic City were sampled to determine concentrations of major ions, nutrients, selected trace metals, and volatile organic compounds. Samples from the offshore wells also were analyzed for stable isotopes and dissolved gases. Increases in specific conductance and pH from north to south and from west to east are thought to be caused by an increase in the amount of carbonate in the sediments underlying present-day coastal areas. These increases are accompanied by changes from a calcium bicarbonate sulfate-type water to a sodium bicarbonate type. The changes in water type are probably caused chiefly by the exchange of sodium for calcium by the fine-grained sediments, which were deposited in an increasingly marine environment. Water collected from the well 5.3 miles offshore had a chloride concentration of 77 milligrams per liter and is predominantly a sodium bicarbonate chloride type, probably because of the proximity of the well to the freshwater-saltwater interface. Preliminary results of the study, however, indicate that a large body of freshwater is present in the 800-foot sand throughout the study area, and it is of a quality generally suitable for most uses.

A second study is evaluating the effects of acid precipitation on surface and ground waters in McDonalds Branch basin in the New Jersey Pinelands (Lord and others, 1986). These waters may be especially susceptible to acid precipitation because of their low pH, low ionic strength, and low buffering capacity. The study is investigating the hydrologic and geochemical processes in the watersheds, including major-ion chemistry, trace-metal mobilization, the sulfate-adsorption capacity of soils, and the contribution of organic matter to acidity. Precipitation; throughfall; surface, ground, and soil waters; soils (Spodosols, Entisols); and geologic materials (Cohansey Sand) in the basin have been analyzed since 1984.

Results indicate that clay lenses within the Cohansey Sand may exert a strong control over both the hydrology and the chemistry in the watershed by altering flow paths and residence time of water in the soil and shallow ground water. These clays contain weatherable minerals, have a large cation exchange capacity, and are a source of aluminum to surface, ground, and soil waters. The sulfate-adsorption capacity has been experimentally determined for four predominant soil series in the watershed. This capacity is relatively small, and the soils appear to be saturated with sulfate. These conditions may increase sulfate mobility through the soils into ground and surface waters. Sulfate is the principal anion in waters of the basin. Hydrogen ion and aluminum commonly are major cations, especially in the soil solution. These preliminary results suggest that atmospherically deposited sulfate is being transported to ground and surface water.

A recently published study (Fusillo, and others, 1984) focused on volatile organic compounds in ground water in the Camden, N.J. area. Samples were collected from 315 wells in the Potomac-Raritan-Magothy aquifer system in southwestern New Jersey and from a small adjacent area in Pennsylvania during 1980-82. Volatile organic compounds were detected in all three aquifer units of the Potomac-Raritan-Magothy aquifer system in the study area. Most of the contamination seems to be confined to the outcrop area at present. Low levels of contamination, however, were found downdip of the outcrop area in the upper and middle aquifers.

Trichloroethylene, tetrachloroethylene, and benzene were the most frequently detected compounds. Differences in the areal distributions of light chlorinated hydrocarbons, such as trichloroethylene, and aromatic hydrocarbons, such as benzene, were noted and are probably caused by differences in the uses of the compounds and the distribution patterns of contamination sources.

The distribution patterns of volatile organic compounds differed greatly among the three aquifer units. The upper aquifer, which crops out mostly in less-developed areas, had the lowest percentage of wells with detectable concentrations of volatile organic compounds detected (10 percent of wells sampled). Most of the detected concentrations were less than 10 µg/L. In the middle aquifer, which crops out beneath much of the urban and industrial area adjacent to the Delaware River, detectable levels of volatile organic compounds were found in 22 percent of the wells sampled; and several wells contained concentrations above 100 µg/L. The lower aquifer, which is confined beneath much of the outcrop area of the aquifer system, had the highest percentage of wells (28 percent) with detectable levels. This is probably the result of (1) vertical leakage of contamination from the middle aquifer and (2) a disproportionately high number of wells tapping the lower aquifer in the most heavily developed areas of the outcrop.

Ground-Water levels

Changes in ground-water levels that occurred during the 1985 water year were determined from a statewide network of observation wells. Less-than-average precipitation during 1985 resulted in decreased recharge to the water-table aquifers. This decrease in recharge resulted in declines of water levels in water-table aquifers in many areas of the state. Increasing withdrawals of ground water, rather than below-normal precipitation, were the principal cause of declines of water levels for the artesian aquifers.

Monthly water levels for two water-table observation wells in 1985 are compared with long-term averages in figure 5. The wells are the Bird well in Hunterdon County and the Crammer well in Ocean County. For further comparison, multiyear hydrographs are provided for wells included in these reports. The hydrographs are shown with the 1985 water-level data.

The water-table aquifers in the Coastal Plain were at or slightly below normal levels at the beginning of 1985 water year. The normal seasonal rise in water levels that occurs during late fall and spring did not occur in many water-table wells. Three wells in the Coastal Plain tapping the Kirkwood-Cohansey aquifer system, recorded declines of more than 6 feet during the water year. By year end, water levels in the Butler Place 2 well (NJ-WRD well no. 5-684) in Burlington County and the Crammer well (NJ-WRD well no. 29-486) in Ocean County were at their lowest levels since 1966 and 1952, respectively. North of the Fall Line, water levels in water-table aquifers varied from near normal to moderately below normal.

Coastal Plain artesian water levels rose seasonally from October through March or April, then declined through September. During the year, there was a net decline of water levels in many areas continuing a long-term downward trend. New lows of record were recorded in 19 Coastal Plain artesian wells. Most of these tap the Potomac-Raritan-Magothy aquifer system which is the most heavily pumped aquifer system in the State. Other aquifers where record lows were recorded include the Wenonah-Mount Laurel aquifer, the Atlantic City 800-foot sand of the Kirkwood Formation, the Piney Point aquifer, and the Englishtown aquifer.

The results of a study of the hydrogeologic framework of the New Jersey Coastal Plain are presented in a recently published report (Zapecza, 1984). The occurrence and configuration of 15 regional hydrogeologic units, based primarily on the interpretation of borehole geophysical logs for over 300 sites, are defined. The report contains 24 plates, which include structure-contour and thickness maps of each aquifer, a thickness map for each confining bed, and a map showing the configuration of the bedrock surface under the Coastal Plain sediments. These maps, together with 14 hydrogeologic sections show the geometry, lateral extent, and vertical and horizontal relationships of the 15 hydrogeologic units.

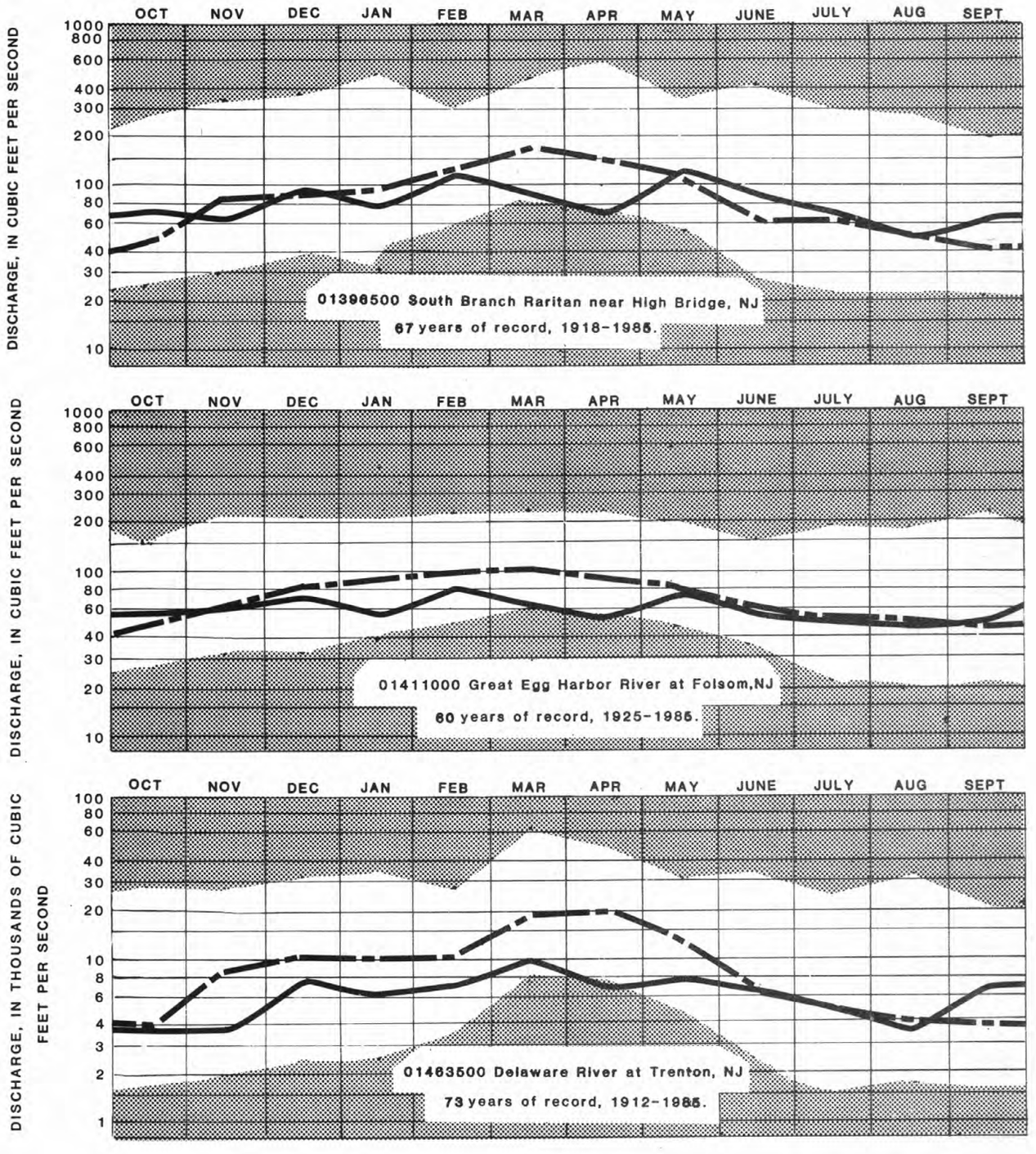
Potentiometric maps were generated from 1983 synoptic water-level measurements of over 1000 wells screened in the major aquifers of the New Jersey Coastal Plain (Eckel and Walker, 1986). Changes in water levels in these aquifers during the 5-year period, 1978-1983, were determined by comparing the 1983 water-level measurements with the 1978 water-level measurements.

The Potomac-Raritan-Magothy aquifer system is divided into the lower, middle, and upper aquifers. The potentiometric surfaces in these aquifers indicate large cones of depression centered in the Camden and Middlesex-Monmouth County areas. The lowest measured water levels were 96 feet below sea level in Camden County and 91 feet below sea level in the Middlesex-Monmouth County area. During the 5-year period of study, measured water levels declined as much as 23 feet in these areas.

Potentiometric surfaces for both the Englishtown aquifer system and the Wenonah-Mount Laurel aquifer indicate deep cones of depression in coastal Monmouth and Ocean Counties. The lowest measured water level in the Englishtown aquifer system was 249 feet below sea level. The lowest measured water level in the Wenonah-Mount Laurel aquifer was 196 feet below sea level. During the 5-year period, measured water levels declined as much as 29 feet in the Wenonah-Mount Laurel aquifer.

Measured water levels in the Piney Point aquifer were as low as 75 feet below sea level along the coast at Seaside Park, Ocean County and as low as 35 feet below sea level in southern Cumberland County. Potentiometric surfaces of the Atlantic City 800-foot sand of the Kirkwood Formation define an elongated cone of depression along the Atlantic Coast. Water levels in the center of the cone, near Margate and Ventnor, Atlantic County, were as low as 76 feet below sea level. In the confined Cohansey aquifer at Cape May, Cape May County, water levels were as low as 33 feet below sea level.

In 1985, as part of a study of the ground-water resources of the Atlantic City region, two observation wells were drilled offshore of Atlantic City (Paulachok and others, 1985). The wells, both screened in the Atlantic City 800-foot sand of the Kirkwood Formation, are located at sites 1.9 and 5.3 miles southeast of Atlantic City. Three differential pressure transducers and three conductivity electrodes were permanently installed in each well. In August 1985, the measured head in the well located 1.9 miles offshore was 80 feet below sea level. In September 1985, the measured head in the well located 5.3 miles offshore was 68 feet below sea level. These measurements suggest that the cone of depression for the Atlantic City 800-foot sand extends at least 5.3 miles offshore.



Unshaded area.--Indicates range between highest and lowest mean recorded for the month, prior to 1985 water year.

Broken line.--Indicates normal (median of the monthly means) for the standard reference period, 1951-1980.

Solid line.--Indicates observed monthly mean flow for the 1985 water year.

Figure 1.--Monthly streamflow at key gaging stations.

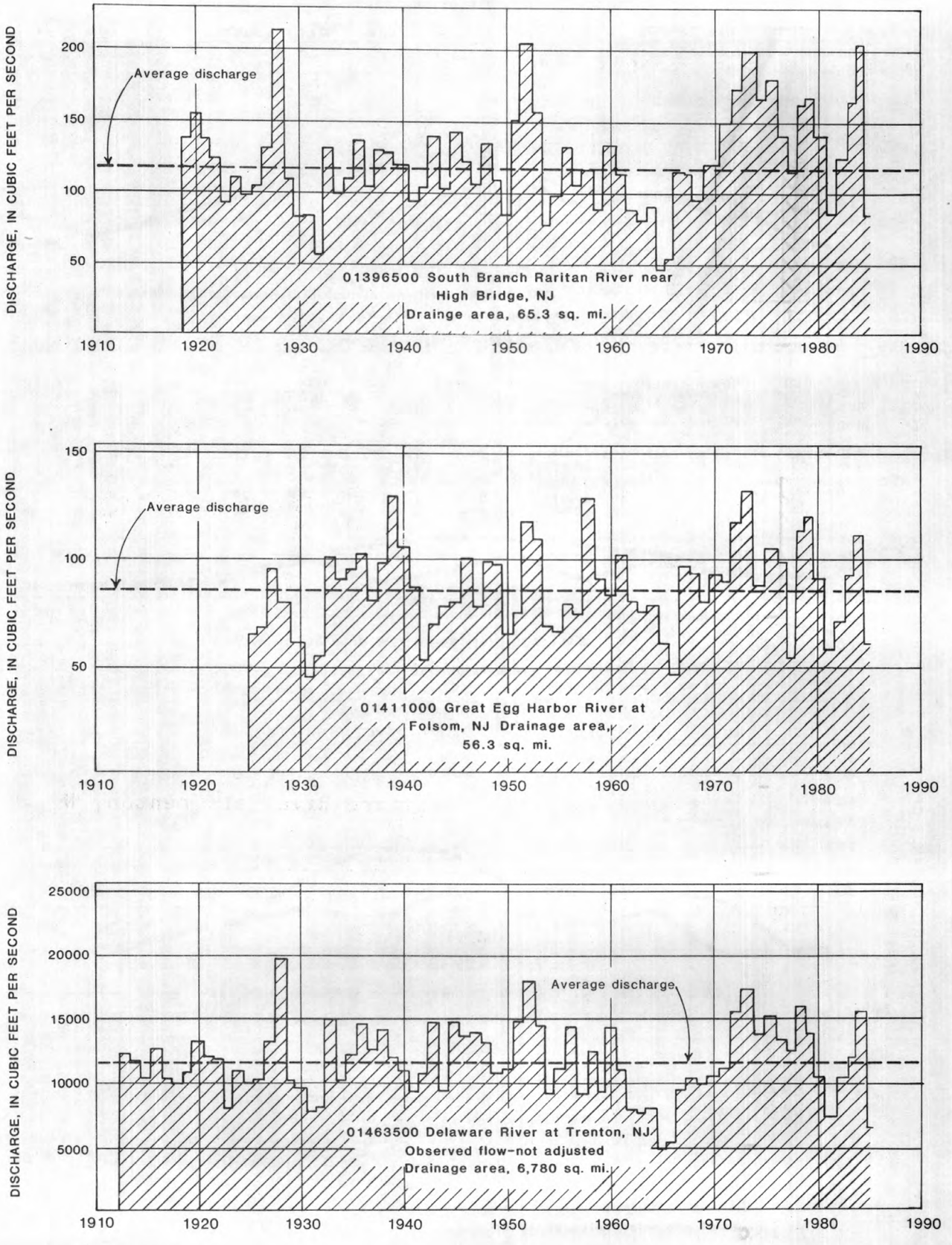


Figure 2.--Annual mean discharge at key gaging stations.

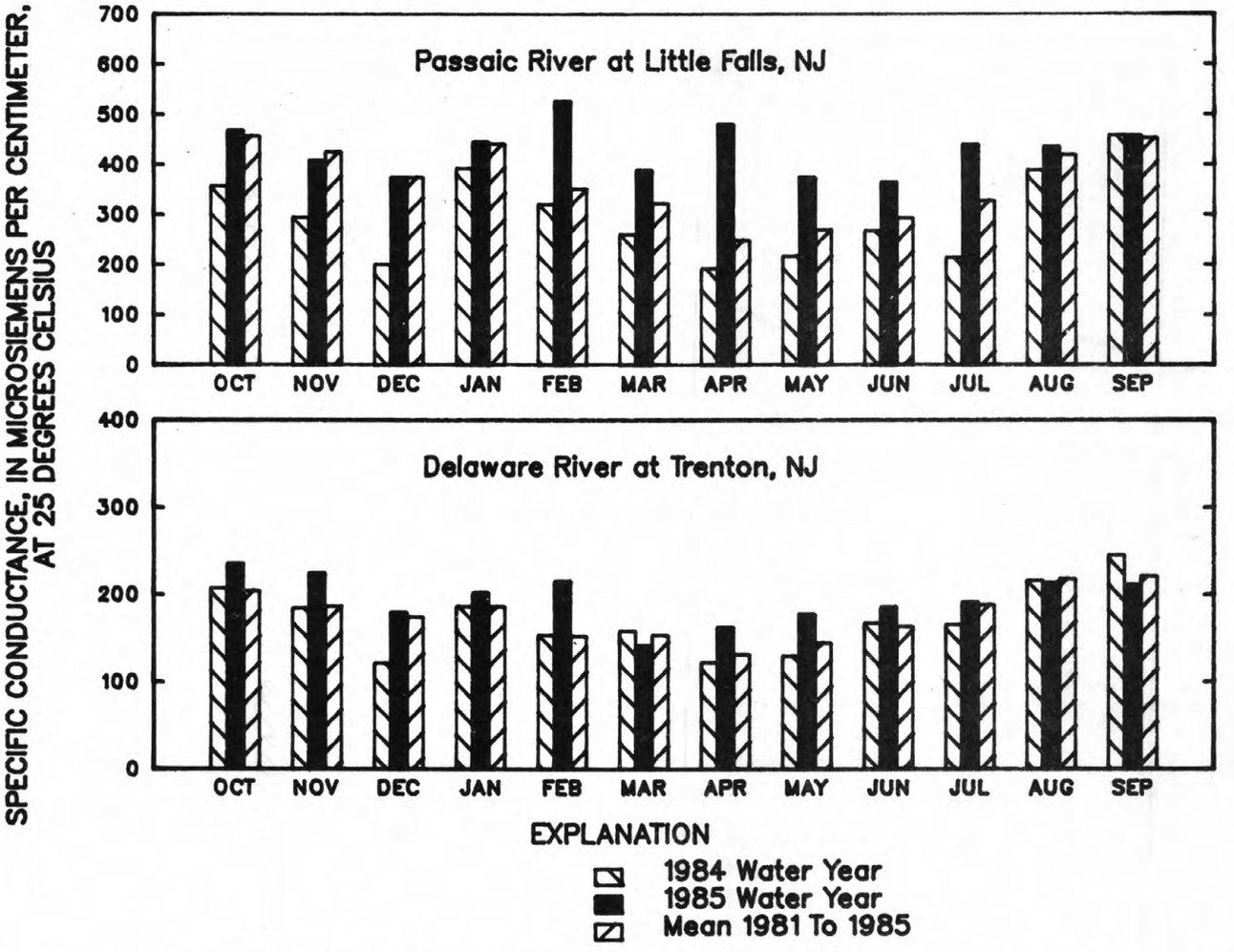


Figure 3.--Monthly mean specific conductance at Passaic River at Little Falls and Delaware River at Trenton, N.J.

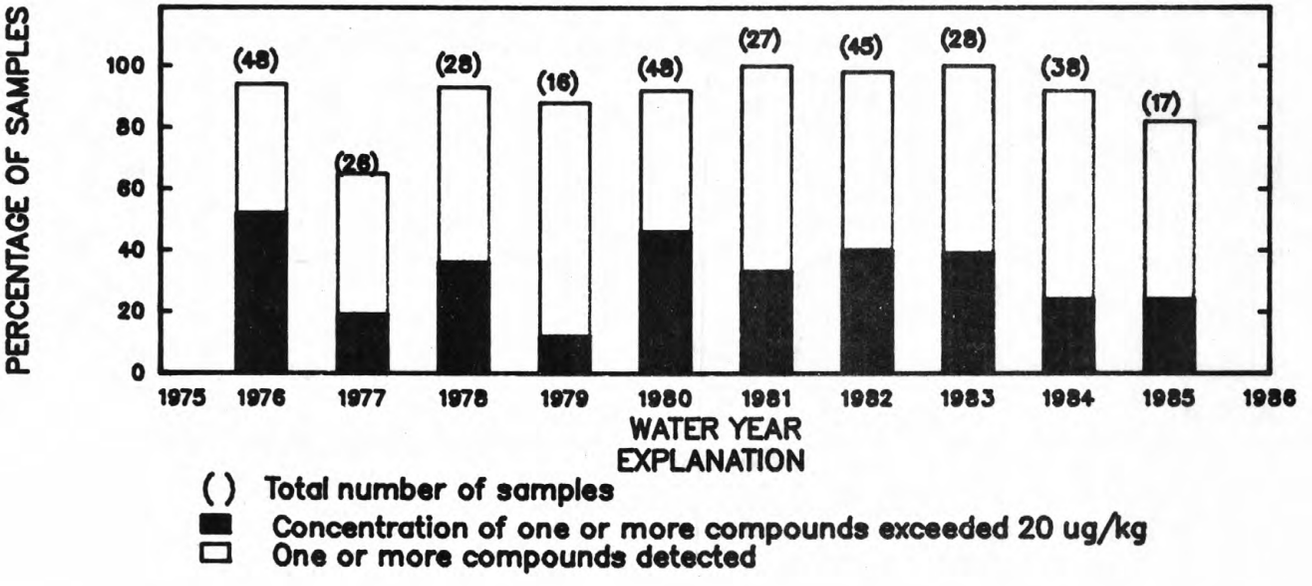
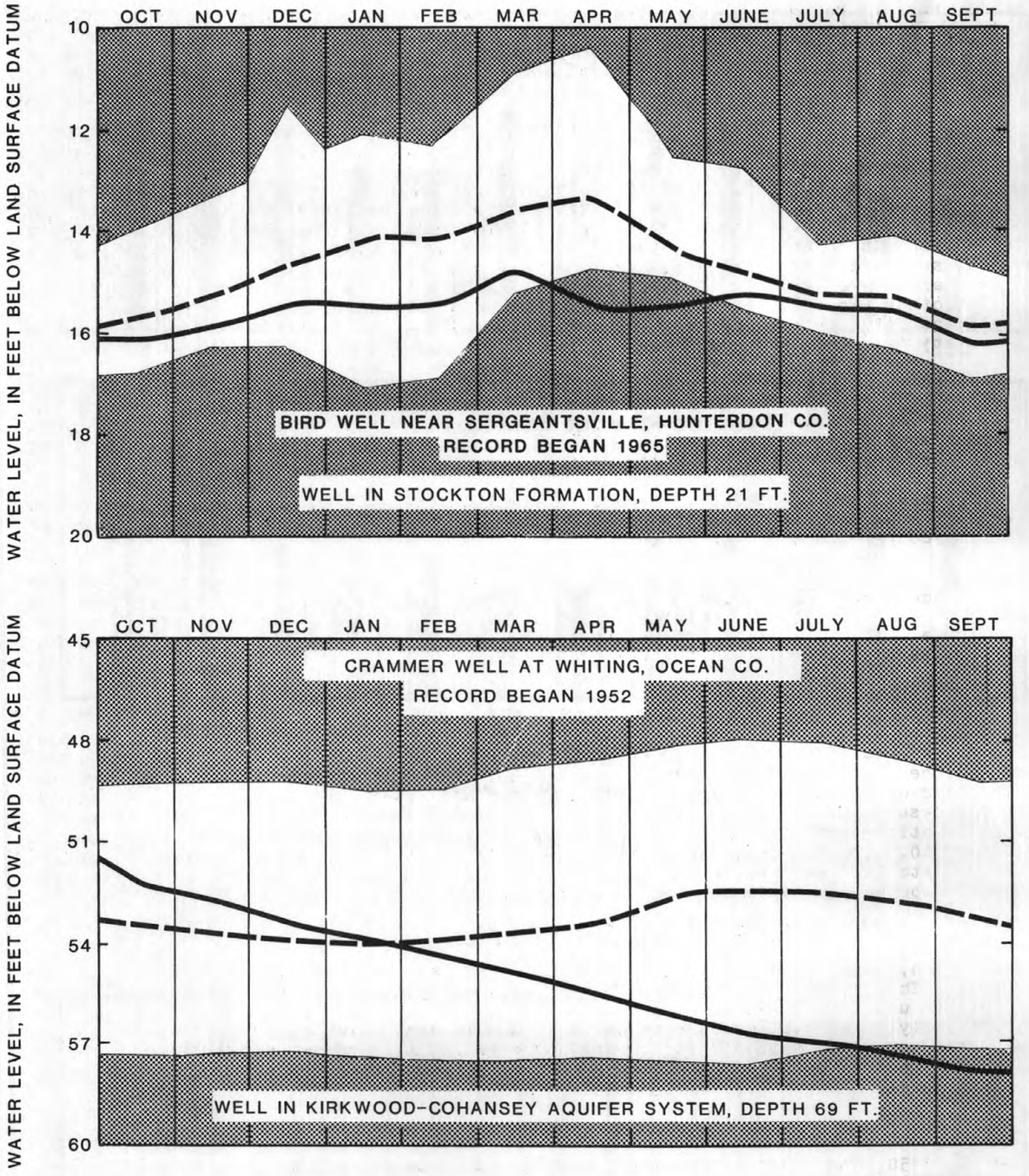


Figure 4.--Organochlorine compounds in bottom materials.



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

Dashed line.--Indicates average of the monthly minimum water levels, prior to current year.

Solid line.--Indicates monthly minimum water level for the current year.

Figure 5.--Monthly ground-water levels at key water-table observation wells.

SPECIAL NETWORKS AND PROGRAMS

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.

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.

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).

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.

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.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1985 water year that began October 1, 1984, and ended September 30, 1985. 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, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 7, 8, 9, and 10. 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, whether streamsite or well, 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.

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.)

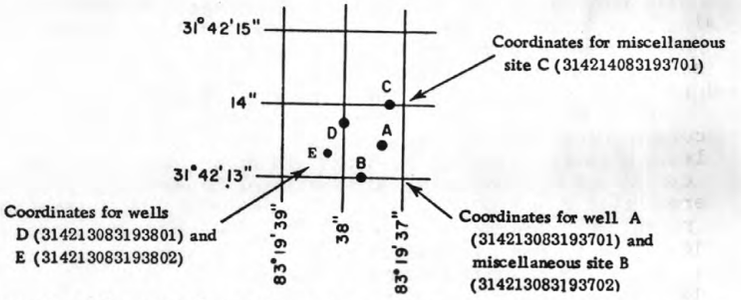


Figure 6.-- System for numbering wells and miscellaneous sites (latitude and longitude)

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, but they are presented separately in this report. Location of all complete-record and crest-stage partial-record stations for which data are given in this report are shown in figures 7 and 8.

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 or with digital recorders that punch stage values on paper tapes at selected time intervals. 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 daily mean stages (gage heights) to the stage-discharge curves or tables. 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

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; 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 gage 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 or the Delaware River Basin Commission.

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 there are published records 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 records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, 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 National Geodetic Vertical Datum of 1929 (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 record 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 statement 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, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, 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 Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

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.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. 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. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. 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. The minimum for the current water year appears below the table of peak data.

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 offices whose addresses are 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 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.

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.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the 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 are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

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.

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°/s; to the nearest tenth between 1.0 and 10 ft°/s; to whole numbers between 10 and 1,000 ft°/s; and to 3 significant figures for more than 1,000 ft°/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.

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. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 7.

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 onsite 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 suspenced-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 Measurments

Samples for biochemical-oxygen demand and for fecal coliform and fecal streptococcal 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 Harrisburg, 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 preceeding 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 value
>	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

Records of Ground-Water Levels

Only water-level data from a national network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in New Jersey are shown in figure 9.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the NJ-WRD well number, a hyphenated 6 digit identification number assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. The first two digits are a code for the county in which the well is located and the last four digits are a sequence number. These NJ-WRD well numbers are being used now in the ground-water level descriptions, wells sampled for water quality analyses, and on the corresponding location maps in these reports.

Water-level records are obtained from direct measurments with a steel tape, from the punched tape of a water-level recorder, or from water-level extremes recorder. Beginning in the 1977 water year, water-level recorders were removed from some wells and replaced by water-level extremes recorders. The extremes are read from these recorders at about three month intervals, but the actual dates of occurrence of these extremes (highest and lowest water levels) are unknown. In these reports, the water-level extremes are given together with the manually measured water levels. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with water-level recorders are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. All measurements published herein are reported to a hundredth of a foot.

Data Presentation

Each well record consists of three parts, the station description, the data table of water levels observed during the water year, and a multi-year hydrograph. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; (a landline location designation); the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum. For wells equipped with recorders, only abbreviated tables are published. Water-level mean values are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report consist of only one set of measurements for the water year. Because ground-water movement is normally slow compared to surface water, frequent measurements are not necessary for monitoring purposes. More frequent measurements may be necessary for studying ground-water problems, trends, or processes.

Data Collection and Computation

The records of ground-water quality in this report were obtained from water-quality monitoring studies in specific areas. Consequently, chemical analyses are presented for some counties but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

In ground-water observation wells, water in the casing may not be representative of aquifer water quality. To collect samples representative of aquifer water, samples are collected only after at least three casing volumes of water have been pumped from the well and measurements of temperature, specific conductance, and pH have stabilized during the pumping.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County and are identified by NJ-WRD well number. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

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.

Assessment of ground-water resources in the vicinity of ground-water contamination sites in Greenwich Township, New Jersey. *

Assessment of the water resources of Logan Township, Gloucester County, New Jersey.

Atmospheric deposition effects on water resources in the New Jersey Pinelands. *

Effects of estimated future withdrawals on water levels in the northeastern Coastal Plain aquifers of New Jersey. *

Evaluation of field sampling techniques and analytical methods for organic compounds in ground water.

Flood characteristics of New Jersey streams. *

Flood insurance studies for Federal Emergency Management Administration.

Geochemical effects on the corrosivity of ground water in the Kirkwood-Cohansey aquifer in the New Jersey Coastal Plain. *

Geohydrology at Picatinny Arsenal in Morris County, New Jersey.

Geohydrology in the vicinity of a fusion test reactor, Plainsboro Township, Middlesex County, New Jersey.

Geophysical characteristics of aquifers in New Jersey. *

Ground-water quality and its relationship to geohydrology and land use in the outcrop area of the Potomac-Raritan-Magothy aquifer system, Mercer and Middlesex Counties, New Jersey.

Ground-water data collection network. *

Ground-water withdrawals and use in South River area of New Jersey. *

Ground-water resources of northern Mercer County and southeastern Somerset County, New Jersey. *

Hydrologic processes with special emphasis on ground-water quality near Atlantic City, New Jersey. *

Hydrologic processes with special emphasis on ground-water quality near Camden, New Jersey. *

Hydrologic processes with special emphasis on ground-water quality near South River, N.J. *

Investigation of naturally occurring radioactive substances in ground water of the Triassic Formations in New Jersey. *

Land subsidence related to ground-water withdrawals in the Coastal Plain of New Jersey. *

Lead contamination of ground water in Ocean County, New Jersey. *

New Jersey water-use data system. *

Quality of water data collection network. *

Regionalization of low flows for New Jersey Streams. *

Simulation of multilayer Coastal Plain aquifer system of New Jersey.

Surface-water data collection network. *

Water-use data system for the Delaware River Basin.

*In cooperation with New Jersey Department of Environmental Protection, Division of Water Resources.

WATER-RELATED REPORTS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY DURING 1984-85

Duran, P.B., 1985, Distribution of bottom sediments and effects of proposed dredging in the ship channel of the Delaware River between northeast Philadelphia, Pennsylvania, and Wilmington, Delaware: U.S. Geological Survey Hydrologic Atlas 697, 1 p.

Fusillo, T.V., Hochreiter, J.J., Jr., and Lord, D.G., 1984, Water-quality data for the Potomac-Raritan-Magothy aquifer system in southwestern New Jersey, 1923-83: U.S. Geological Survey Open-File Report 84-737, 127 p.

Harbaugh, A.W., and Tilley, C.L., 1984, Steady-state computer model of the water-table aquifer in the Mullica River Basin, the Pine Barrens, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 84-4295, 38 p.

Harriman, D.A., and Voronin, L.M., 1984, Water-quality data for aquifers in east-central New Jersey, 1981-82: U.S. Geological Survey Open-File Report 84-821, 39 p.

Harriman, D.A., and Sargent, B.P., 1985, Ground-water quality in east central New Jersey and a plan for sampling networks: U.S. Geological Survey Water-Resources Investigations Report 85-4243, 114 p.

Hochreiter, J.J., Jr., and Kozinski, Jane, 1985, Quality of water and bed material in streams of Logan Township, Gloucester County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 85-4300, 47 p.

Knobel, L.L., 1985, Ground-water-quality data for the Atlantic Coastal Plain: New Jersey, Delaware, Maryland, Virginia and North Carolina: U.S. Geological Survey Open-File Report 85-154, 84 p.

Koszalka, E.J., Miller, J.E., Jr., and Duran, P.B., 1985, Preliminary evaluation of chemical migration to ground water and the Niagra River from selected waste disposal sites: EPA-905/4-85-001, 425 p.

Leahy, P.P., 1985, Management of ground water and evolving hydrogeologic studies in New Jersey: A heavily urbanized and industrialized state in the northeastern United States: U.S. Geological Survey Water-Resources Investigations Report 85-4277, 27 p.

Lord, D.G., and Kish, G.R., 1985, Acidic deposition in New Jersey, Chapter III, Ground water processes in acidic deposition in New Jersey: a report to the Governor and Legislature of New Jersey by the panel on acidic deposition in New Jersey under the auspices of the Governor's Science Advisory Committee, 193 p.

May, J.E., 1985, Feasibility of artificial recharge to the 800-foot sand of the Kirkwood formation in the Coastal Plain near Atlantic City, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 85-4063, 24 p.

Meisler, Harold, Leahy, P.P., and Knobel, L.L., 1984, Effect of eustatic sea-level changes on saltwater-freshwater in the northern Atlantic Coastal Plain: U.S. Geological Survey Water-Supply Paper 2255, 28 p.

Schopp, R.D., and Ulery, R.L., 1984, Cost-effectiveness of the stream-gaging program in New Jersey: U.S. Geological Survey Water-Resources Investigations Report 84-4108, 97 p.

Velnich, A.J., 1984, Drainage areas in New Jersey: Atlantic coastal basins, South Amboy to Cape May: U.S. Geological Survey Open-File Report 84-150, 33 p.

Vowinkel, E.F., 1984, Ground-water withdrawals from the Coastal Plain of New Jersey, 1956-80: U.S. Geological Survey Open-File Report 84-226, 32 p.

Zapecza, O.S., 1984, Hydrogeologic framework of the New Jersey Coastal Plain: U.S. Geological Survey Open-File Report 84-730, 61 p.

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Geological Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the offices whose addresses are given on the back of the title page.

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

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.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Aquifer codes and geologic names:

The following list shows the aquifer unit codes and geologic names of the formations in which the sampled wells are finished. The aquifer unit codes also appear in the ground-water quality tables.

112SFDF	Stratified Drift
112CPMY	Cape May Formation, Undifferentiated
112ESRNS	Cape May Formation, Estuarine Sand Facies
121CNSY	Cohansey Sand
121CKKD	Kirkwood-Cohansey Aquifer System
122KRKDU	Rio Grande Water-Bearing Zone of the Kirkwood Formation
122KRKDL	Atlantic City 800-Foot Sand of the Kirkwood Formation
124PNPN	Piney Point Aquifer
125VNCN	Vincentown Formation
211MLRW	Wenonah-Mount Laurel Aquifer
211EGLS	Englishtown Aquifer
211MRPA	Potomac-Raritan-Magothy Aquifer System, Undifferentiated
211MRPAU	Upper Aquifer, Potomac-Raritan-Magothy Aquifer System
211MRPAM	Middle Aquifer, Potomac-Raritan-Magothy Aquifer System
211MRPAL	Lower Aquifer, Potomac-Raritan-Magothy Aquifer System
211ODBG	Old Bridge Aquifer, Potomac-Raritan-Magothy Aquifer System (Mercer, Middlesex, Monmouth Counties)
211FRNG	Farrington Aquifer, Potomac-Raritan-Magothy Aquifer System (Mercer, Middlesex, Monmouth Counties)
231BRCK	Brunswick Formation
231SCKN	Stockton Formation

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

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.

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.

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/mi^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.

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

Cubic foot per second (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 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile [$(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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.

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.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

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

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.

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

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

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

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

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.

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 or 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.

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 Deposition Program (NADP).

NJ-WRD well number is a hyphenated, 6-digit identification number which the U.S. Geological Survey assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. This numbering system was developed in 1978 to simplify identification of wells. The first two digits are a code for the county in which the well is located, and the last four digits are a sequence number. Each well added to GWSI is assigned the next higher sequence number for the county in which the well is located. These NJ-WRD well numbers are being used now in the ground-water level descriptions, wells sampled for water-quality analyses, and on the corresponding location maps in these reports.

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 (m^2), 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 x 10) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7 x 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 [mgO /(m^2.time)] for periphyton and macrophytes and [mgO /(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 mangitude, 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.

Screened interval is the length of well screen through which water enters a well, in feet below land surface.

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.

7-day 10-year low flow (MA7CD10) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

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 emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artifical 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 filer 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	Hexacenia
Species	Hexacenia limbata

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

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water 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 (7/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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3-A9. *Measurement of time of travel and dispersion in streams by dye tracing,* by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

3-A10. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A13. *Computation of continuous records of streamflow,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge,* by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

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3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment.* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

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4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

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5-A3. *Methods for analysis of organic substances in water,* by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples.* edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sedments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

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7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

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7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

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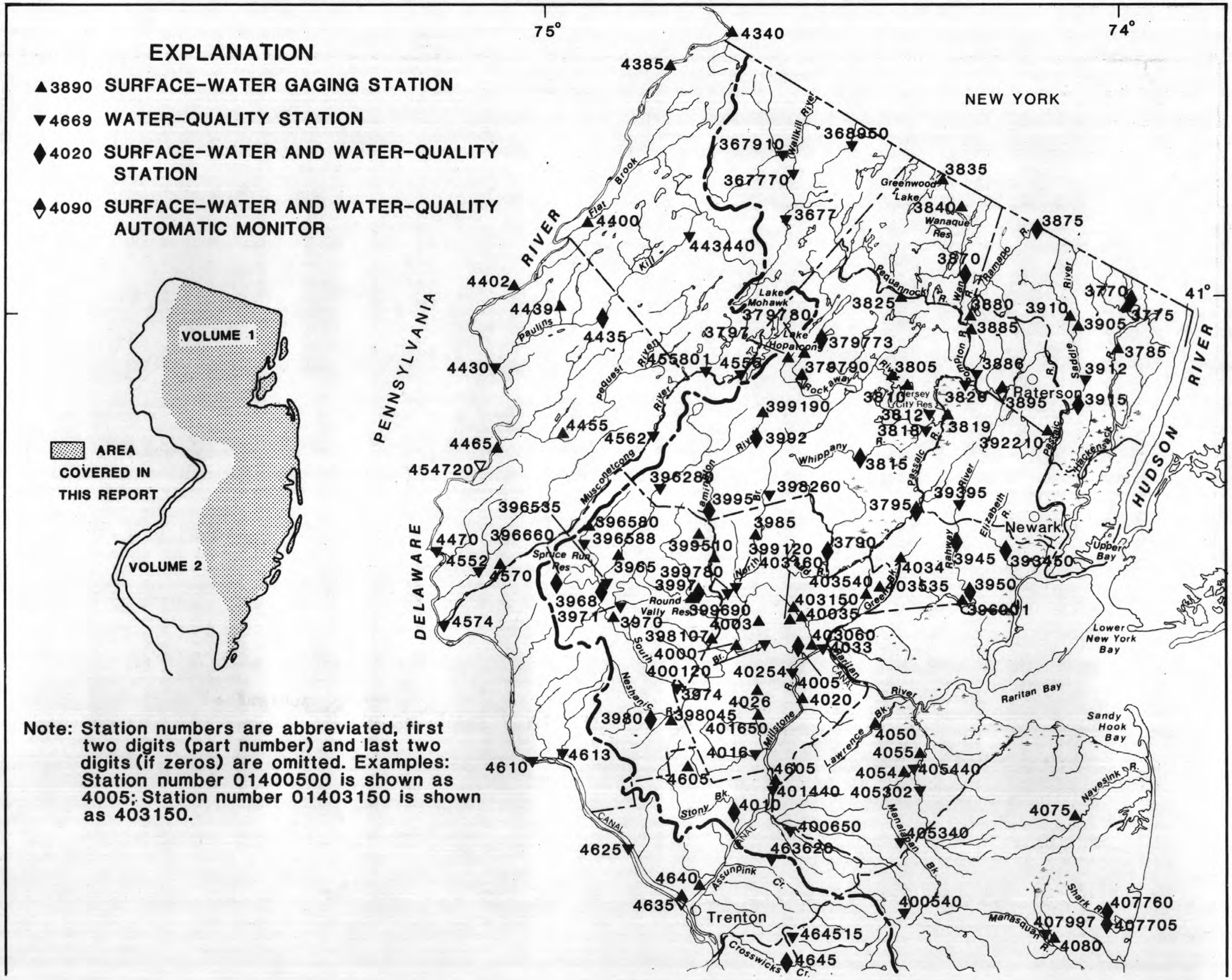
8-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters.* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.


EXPLANATION
▲3890 SURFACE-WATER GAGING STATION
▼4669 WATER-QUALITY STATION
◆4020 SURFACE-WATER AND WATER-QUALITY STATION
4090 SURFACE-WATER AND WATER-QUALITY AUTOMATIC MONITOR
VOLUME 1
VOLUME 2
AREA COVERED IN THIS REPORT
75°
74°
41°
NEW YORK
PENNSYLVANIA
DELAWARE RIVER
HUDSON RIVER
Paterson
Newark
Trenton
Upper Bay
Lower New York Bay
Raritan Bay
Sandy Hook Bay
Greenwood Lake
Wanaque Res
Lake Mohawk
Lake Hopatcong
Jersey City Res
Spruce Run Res
Round Valley Res
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.

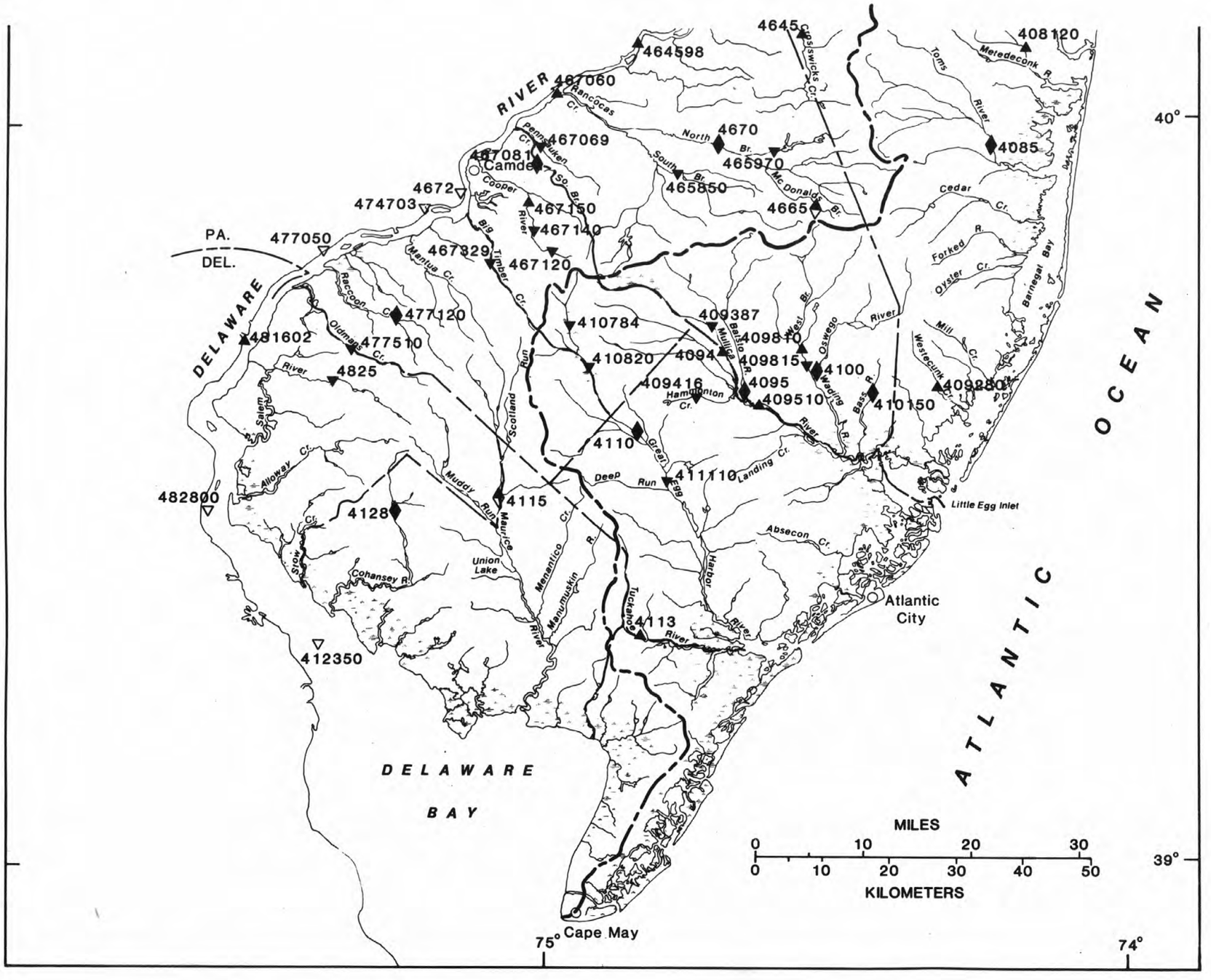
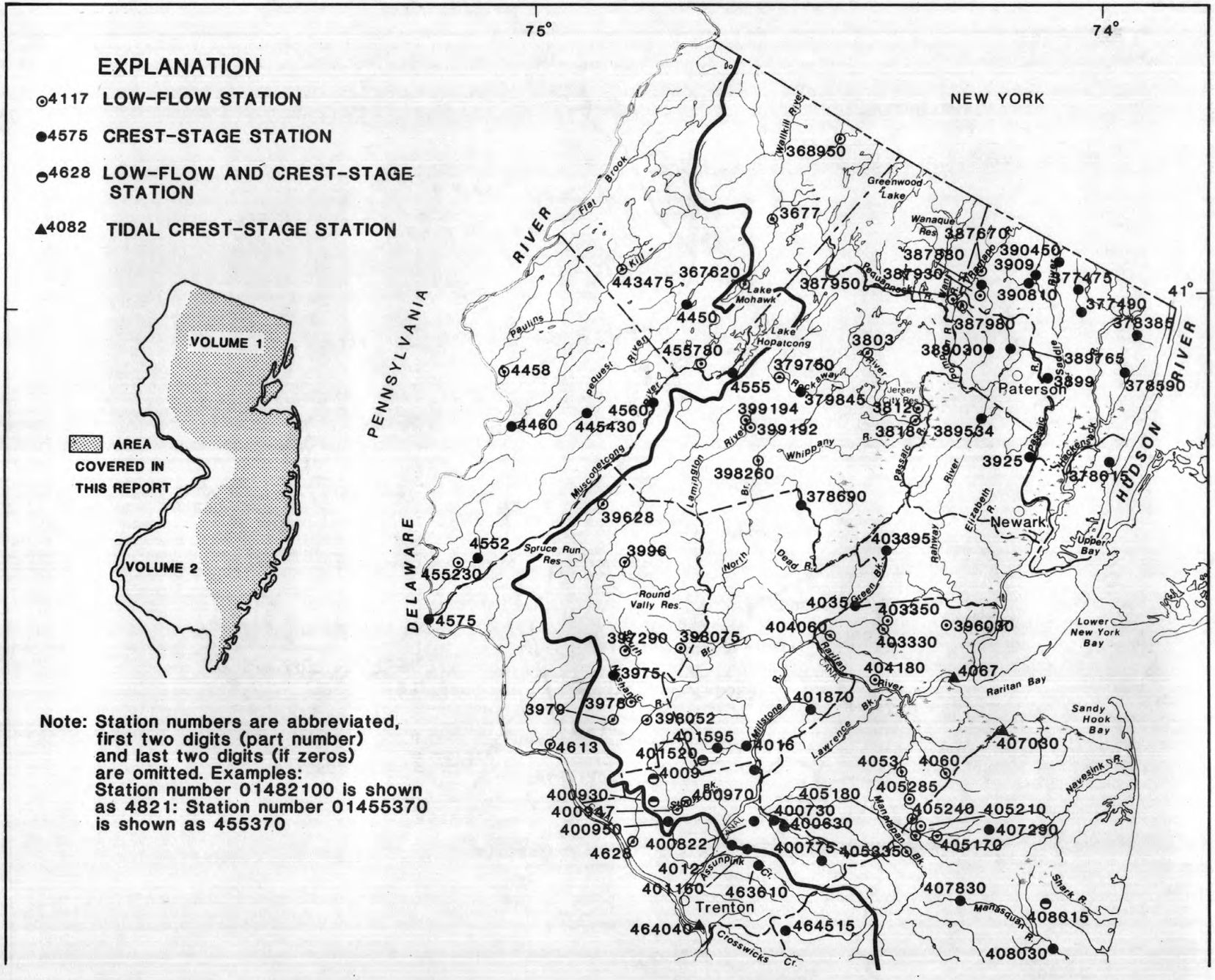


Figure 7.--Location of surface-water gaging stations and water-quality stations.



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

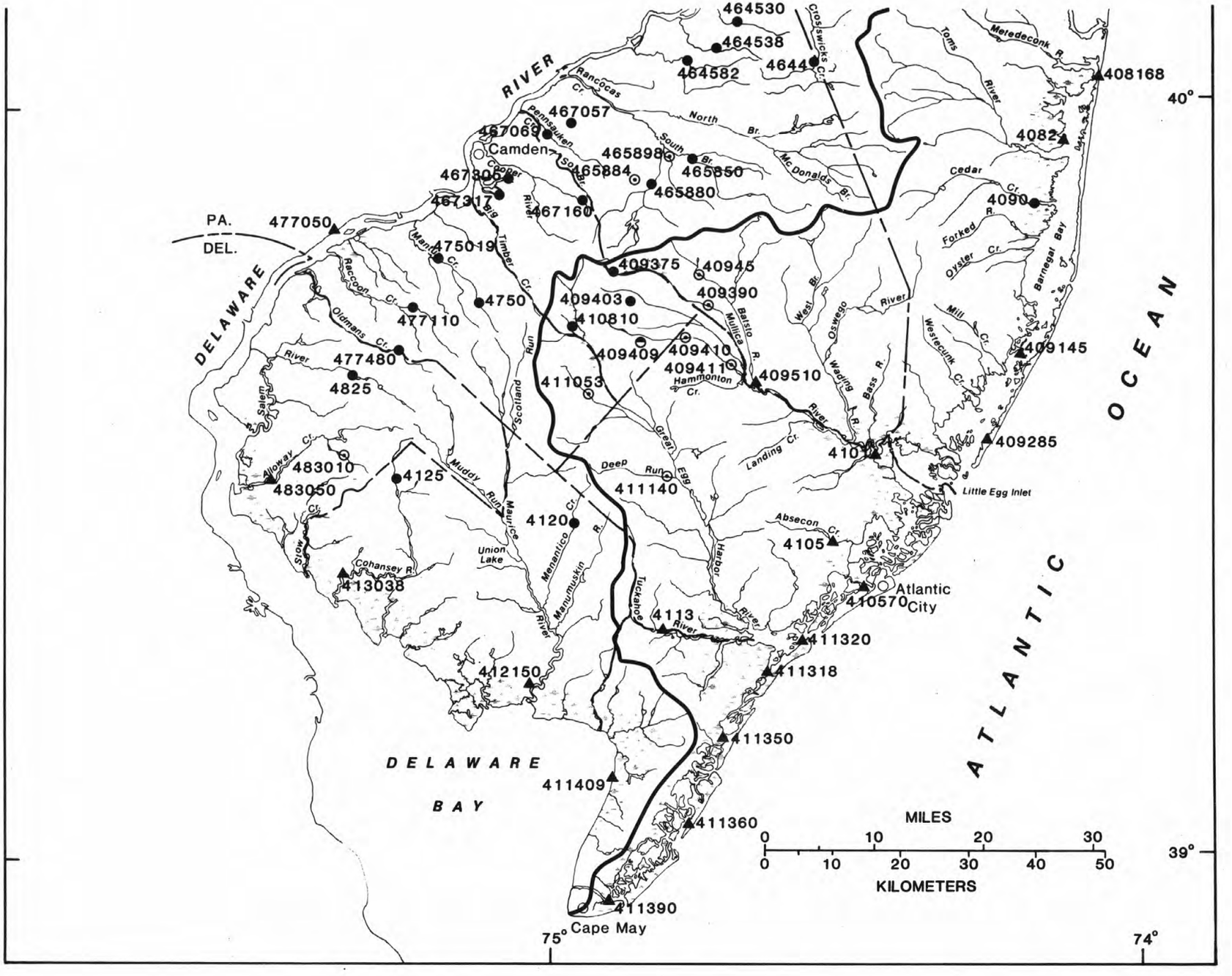
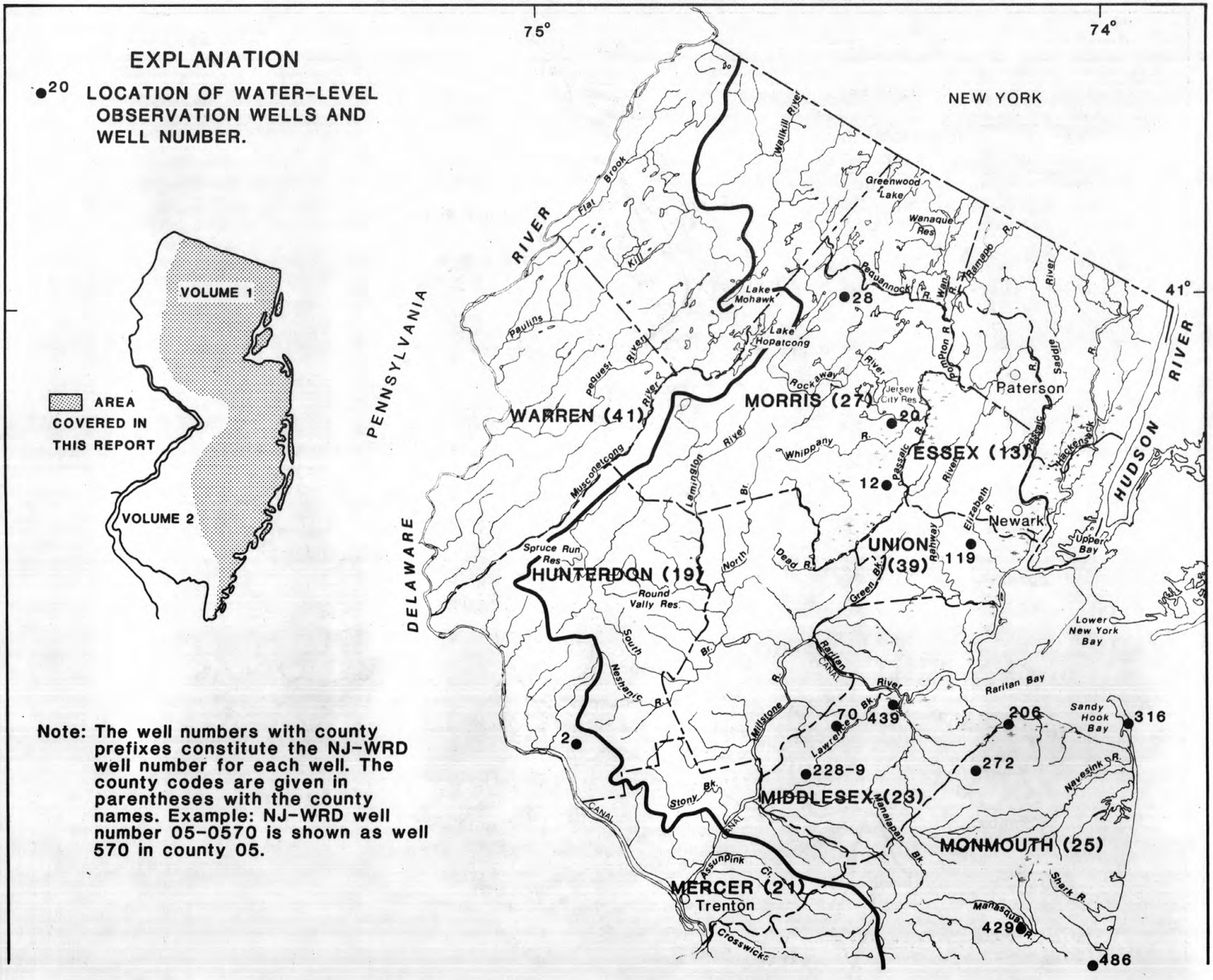


Figure 8.--Location of low-flow and crest-stage partial record stations.



Note: The well numbers with county prefixes constitute the NJ-WRD well number for each well. The county codes are given in parentheses with the county names. Example: NJ-WRD well number 05-0570 is shown as well 570 in county 05.

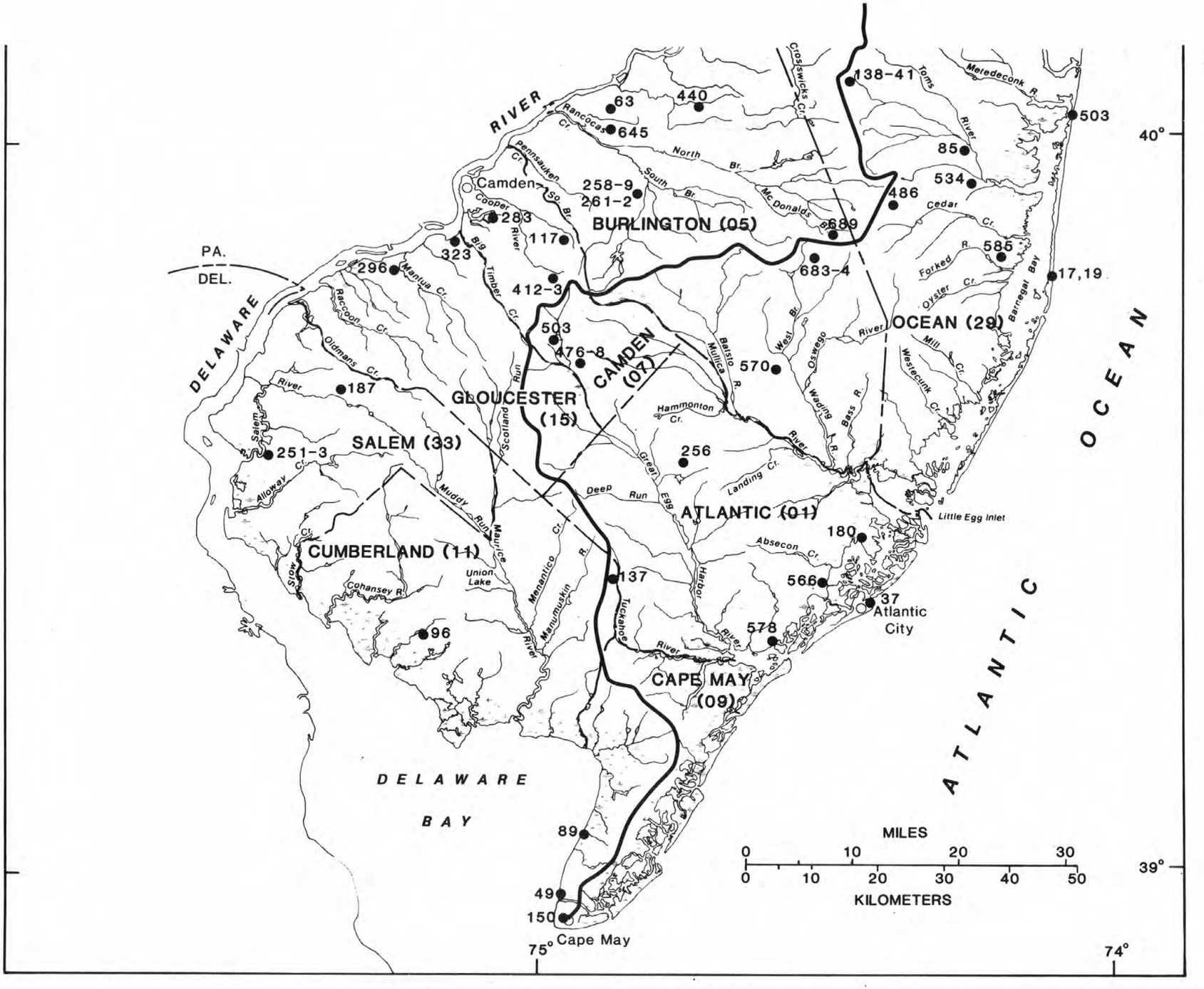
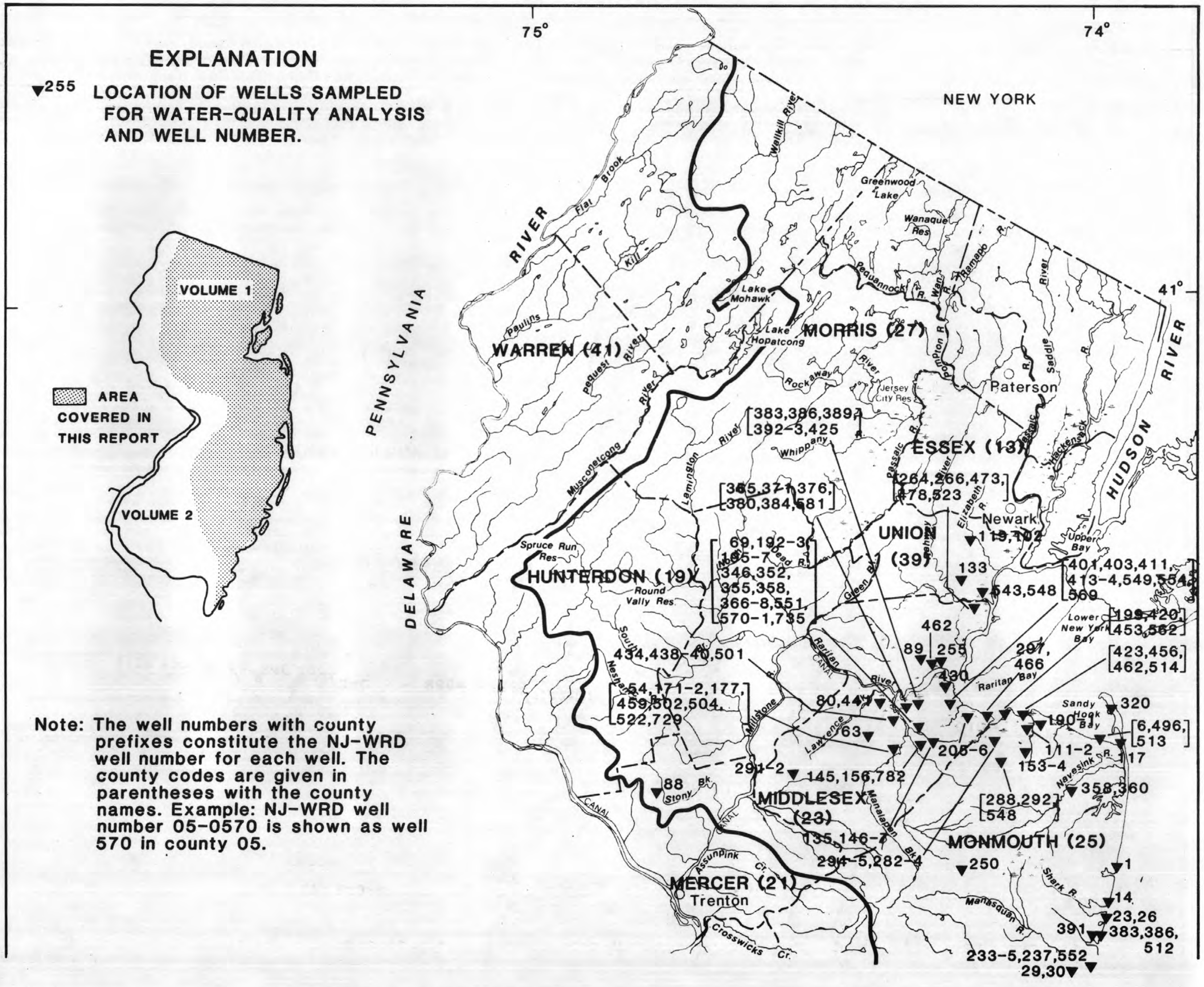


Figure 9.--Location of ground-water level observation wells.


EXPLANATION
▼255 LOCATION OF WELLS SAMPLED FOR WATER-QUALITY ANALYSIS AND WELL NUMBER.
VOLUME 1
VOLUME 2
AREA COVERED IN THIS REPORT
Note: The well numbers with county prefixes constitute the NJ-WRD well number for each well. The county codes are given in parentheses with the county names. Example: NJ-WRD well number 05-0570 is shown as well 570 in county 05.
75°
74°
41°
NEW YORK
PENNSYLVANIA
DELAWARE
RIVER
HUDSON RIVER
WARREN (41)
MORRIS (27)
ESSEX (13)
UNION (39)
HUNTERDON (19)
MIDDLESEX (23)
MONMOUTH (25)
MERCER (21)
Paterson
Newark
Trenton
Greenwood Lake
Wanaque Res
Lake Mohawk
Lake Hopatcong
Jersey City Res
Spruce Run Res
Round Vally Res
Upper Bay
Lower New York Bay
Raritan Bay
Sandy Hook Bay
Flat Brook
Wallkill River
Paulins Kill
Pequest River
Musconetcong River
Lamington River
Rockaway River
Whippany
Passaic R.
Pequannock R.
Wanaque R.
Ramapo R.
Pompton R.
Saddle R.
Hackensack R.
Elizabeth R.
Raritan River
Millstone
Lawrence
Stony Bk
Assunpink Cr.
Crosswicks Cr.
Manalapan Bk
Navesink R.
Shark R.
Manasquan R.
CANAL
[383,386,389, 392-3,425]
[365,371-376, 380,384,581]
[264,266,473, 478,523]
69,192-3, 346,352, 355,358, 366-8,551, 570-1,735
119,102
133
543,548
[401,403,411, 413-4,549,554, 569]
[199,420, 453,562]
[423,456, 462,514]
462
89
255
297, 466
430
434,438-40,501
[54,171-2,177, 459,502,504, 522,729]
80,447
63
205-6
190
111-2
153-4
320
[6,496, 513]
117
291-2
145,156,782
88
358,360
[288,292, 548]
135,146-7
294-5,282-4
250
1
14
23,26
391
383,386, 512
233-5,237,552
29,30

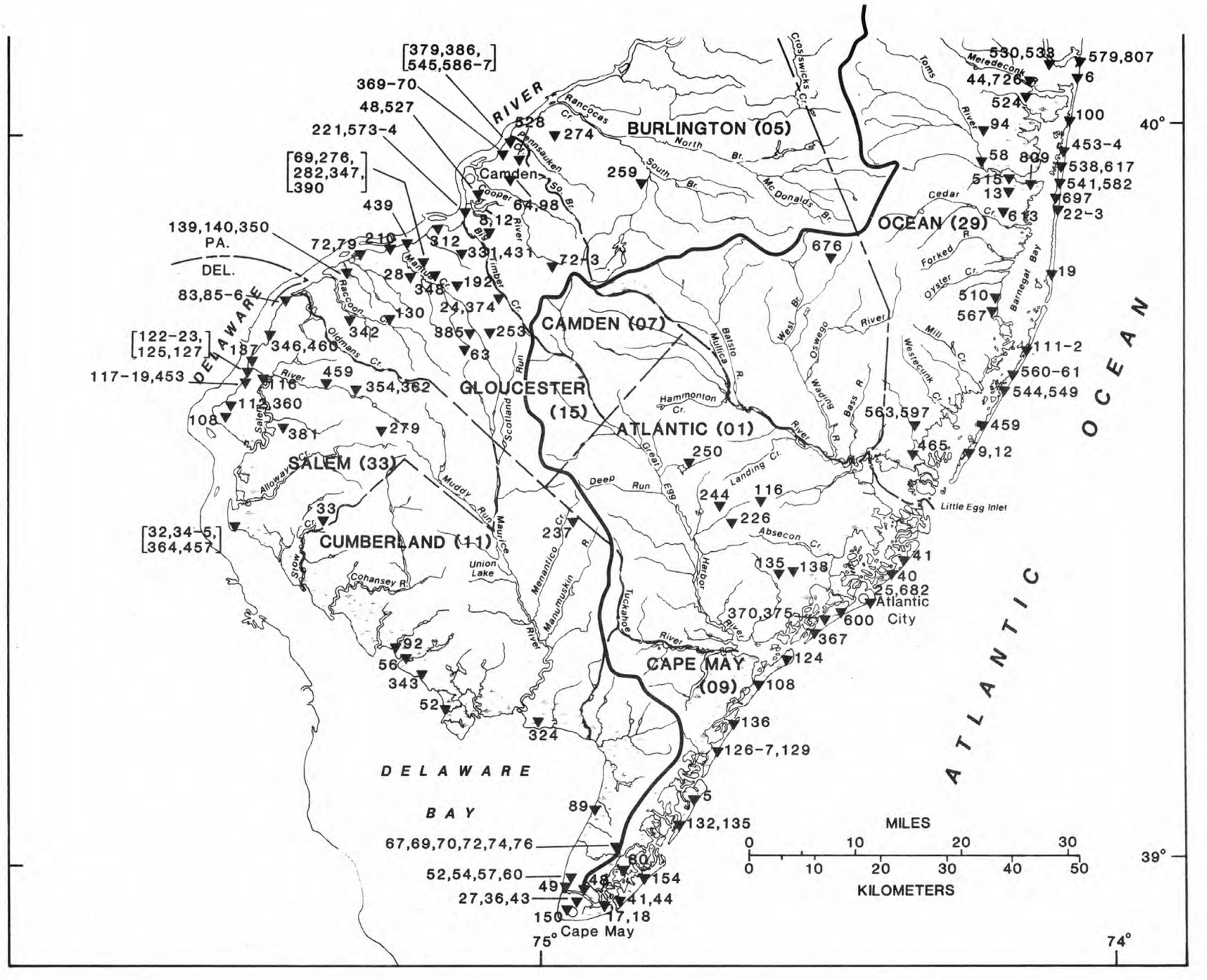


Figure 10.--Location of ground-water quality stations.

HUDSON RIVER BASIN

01367700 WALLKILL RIVER AT FRANKLIN, NJ

LOCATION.--Lat 41°06'43", long 74°35'21", Sussex County, Hydrologic Unit 02020007, at bridge 120 ft downstream from dam at outlet of Franklin Pond in Franklin, and 0.8 mi upstream from Wildcat Brook.

DRAINAGE AREA.--29.4 mi².

WATER-QUALITY RECORDS

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPM method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 11...	1330	E5.4	482	8.9	15.0	11.4	114	E2.3	50	130
FEB 21...	1330	E23	348	8.2	1.5	14.2	101	E1.5	--	--
APR 03...	1330	E43	303	8.7	6.0	12.6	105	E1.3	50	11
JUN 06...	1300	E110	380	7.4	16.0	7.3	76	1.7	16000	1600
JUL 09...	1330	E17	409	8.2	22.0	8.1	96	3.0	50	220
AUG 20...	1230	E7.6	394	8.1	21.5	8.2	95	2.3	50	240

DATE	HARD-NESS (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 11...	180	38	20	30	2.2	142	22	56	.20
FEB 21...	120	29	11	22	1.3	81	18	49	.10
APR 03...	100	25	9.3	19	1.0	78	17	40	<.10
JUN 06...	120	31	11	22	1.2	100	16	38	<.10
JUL 09...	140	34	14	26	1.5	120	18	49	.10
AUG 20...	150	37	15	27	1.7	125	15	50	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 11...	6.4	260	.012	.51	<.050	.34	.85	.040	2.7
FEB 21...	7.0	190	.005	.43	.090	.46	.89	.020	3.5
APR 03...	5.6	160	.012	.29	.060	.35	.64	<.020	3.8
JUN 06...	6.6	190	.013	.37	.280	.81	1.2	.100	5.1
JUL 09...	6.9	220	.013	.34	.120	.65	.99	.050	4.8
AUG 20...	7.7	230	.012	.40	.160	.91	1.3	.050	4.8

01367700 WALLKILL RIVER AT FRANKLIN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 11...	1330	<.5	62	62	<10	3	1	<10	40	<1	9
JUN 06...	1300	<.5	--	--	40	4	--	<10	40	2	--

DATE	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)	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)
OCT 11...	10	4	40	<1	7	320	1700	1	140	60	2600
JUN 06...	10	--	--	4	--	820	--	6	--	260	--

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 11...	<.1	<.01	5	<10	<1	<1	20	1400	14	<1	<1.0
JUN 06...	.3	--	5	--	<1	--	70	--	8	--	--

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 11...	<.1	3.0	.9	.5	.4	<.1	<.1	<.1	<.1	<.1	<.1
JUN 06...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 11...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN 06...	--	--	--	--	--	--	--	--	--	--	--

01367770 WALLKILL RIVER NEAR SUSSEX, NJ

LOCATION.--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 mi².

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 11...	1200	20	510	8.2	14.5	9.2	91	E1.9	70	240
FEB 21...	1215	46	407	8.0	1.0	13.0	91	--	--	--
APR 03...	1200	41	393	8.1	5.0	11.4	92	E1.6	140	14
JUN 06...	1120	81	432	7.3	16.0	8.6	89	1.7	2400	>2400
JUL 09...	1200	25	488	8.1	20.0	8.3	94	E1.3	790	>2400
AUG 20...	1045	20	470	8.2	19.5	8.0	88	E1.6	220	540

DATE	HARD-NESS (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 11...	240	53	26	24	2.6	206	27	45	.10
FEB 21...	--	--	--	--	--	--	--	--	--
APR 03...	150	37	15	18	1.3	129	21	37	<.10
JUN 06...	150	36	15	19	1.4	135	18	37	<.10
JUL 09...	190	44	19	26	2.3	163	20	49	.10
AUG 20...	210	48	23	26	2.7	176	20	45	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 11...	7.6	310	.013	1.2	.130	.28	1.5	.140	2.8
FEB 21...	--	--	--	--	--	--	--	--	--
APR 03...	5.5	210	.014	.69	.070	.48	1.2	.050	4.0
JUN 06...	6.7	210	.018	.65	.160	.87	1.5	.130	5.5
JUL 09...	7.3	270	.010	1.5	.120	.45	1.9	.060	3.8
AUG 20...	8.6	280	.010	2.1	.080	.41	2.5	.070	3.2

01367910 PAPAKATING CREEK AT SUSSEX, NJ

LOCATION.--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 mi².

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 16...	1030	E10	315	7.7	11.0	5.6	51	3.9	2400	240
FEB 26...	1245	E76	193	7.3	3.5	12.0	91	E1.2	50	49
APR 10...	1045	E51	221	8.0	6.0	11.5	93	>10	250	<2
JUN 06...	1030	E106	230	6.8	15.0	8.5	85	2.0	5400	>2400
JUL 18...	1330	E20	270	7.6	23.0	6.2	73	3.1	790	540
AUG 14...	1245	E16	253	7.8	23.0	5.8	69	E2.1	1100	170

DATE	HARD-NESS (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 16...	130	42	6.2	15	2.8	92	29	27	<.10
FEB 26...	58	18	3.1	13	1.6	27	21	25	<.10
APR 10...	75	24	3.7	14	1.3	41	23	30	<.10
JUN 06...	70	22	3.6	13	2.0	48	19	23	<.10
JUL 18...	91	29	4.4	15	2.6	68	22	21	<.10
AUG 14...	100	33	4.8	16	2.7	75	19	23	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 16...	4.2	180	.064	.56	1.11	1.5	2.1	.280	3.7
FEB 26...	5.4	100	.011	.87	.160	.67	1.5	.060	4.0
APR 10...	3.4	120	.014	.37	.140	.49	.86	.060	4.3
JUN 06...	6.2	120	.049	.71	.240	.92	1.6	.210	6.6
JUL 18...	6.0	140	.068	.64	.150	.89	1.5	.230	6.3
AUG 14...	5.4	150	.039	.52	.130	.84	1.4	.150	5.6

01367910 PAPAKATING CREEK AT SUSSEX, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 16...	1030	<.5	20	<1	<10	20	<1	<10	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)	PHENOLS TOTAL (UG/L)
OCT 16...	630	15	160	<.1	3	<1	20	<1

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 mi².

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 Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 16...	1215	E4.8	704	8.0	10.0	5.4	48	E2.1	90	240
FEB 26...	1100	E27	432	7.8	3.5	8.6	65	E1.2	40	49
APR 10...	1230	E19	554	8.3	8.0	13.2	112	E1.5	50	13
JUN 06...	1200	E36	550	7.0	16.0	6.2	64	1.5	700	>2400
JUL 18...	1215	E8.5	600	7.9	21.5	5.9	68	E2.2	330	540
AUG 14...	1100	E7.2	653	8.0	23.5	4.9	59	2.6	170	920

DATE	HARD-NESS (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 16...	270	62	27	33	2.1	232	22	64	.20
FEB 26...	160	38	17	25	1.4	128	21	46	.20
APR 10...	220	51	23	29	1.1	187	22	61	.20
JUN 06...	210	48	21	28	1.2	180	18	49	.20
JUL 18...	--	--	--	--	--	201	18	67	.20
AUG 14...	200	45	21	34	1.8	198	17	71	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 16...	7.0	360	.012	.86	.140	.38	1.2	.070	3.1
FEB 26...	5.7	230	.016	.64	.160	.62	1.3	.060	4.0
APR 10...	4.3	300	.017	.63	.110	.38	1.0	.050	4.6
JUN 06...	7.9	280	.026	.48	.190	.90	1.4	.110	6.6
JUL 18...	--	--	.117	.98	.180	.94	1.9	.180	6.9
AUG 14...	6.7	320	.159	.74	.710	1.5	2.3	.220	3.5

01368950 BLACK CREEK NEAR VERNON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 16...	1215	--	2.9	54	--	--	1	--	--	--	<1
JUN 06...	1200	<.5	--	--	40	1	--	<10	40	1	--

DATE	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)	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)
OCT 16...	--	20	10	--	16	--	18000	--	40	--	770
JUN 06...	10	--	--	7	--	1600	--	5	--	150	--

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 16...	--	<.01	--	<10	--	<1	--	90	--	<1	<1.0
JUN 06...	.1	--	3	--	<1	--	40	--	8	--	--

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 16...	<.1	7.0	3.9	4.4	<.1	<.1	<.1	<.1	<.1	<.1	<.1
JUN 06...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 16...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN 06...	--	--	--	--	--	--	--	--	--	--	--

01376800 HACKENSACK RIVER AT WEST NYACK, NY

LOCATION.--Lat 41°05'44", long 73°57'52", Rockland County, 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.--29.4 mi^2.

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

GAGE.--Water-stage recorder, stop-log control, and crest-stage gage. Datum of gage is 53.50 ft above National Geodetic Vertical Datum of 1929 (levels by Hackensack Water Co.).

REMARKS.--No estimated daily discharges. Records good. 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. Several measurements of water temperature were made during the year.

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, 2.6 ft^3/s June 12, 1965, Sept. 25, 26, 30, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 260 ft^3/s Sept. 27, gage height, 5.23 ft; minimum daily, 10 ft^3/s July 21, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	38	43	19	39	17	20	17	24	15	19	13
2	19	39	43	23	40	17	18	21	16	13	14	12
3	15	38	55	20	38	17	18	61	15	13	13	12
4	14	37	50	17	39	17	17	23	14	13	13	12
5	16	66	44	19	39	23	17	16	20	12	13	12
6	21	43	59	16	39	19	18	16	17	13	13	13
7	24	40	37	17	30	18	17	16	15	14	13	13
8	26	41	18	17	17	21	18	14	15	13	17	13
9	32	41	16	16	16	20	18	14	15	12	14	20
10	38	40	15	18	16	20	17	15	14	12	13	15
11	39	42	15	19	16	20	17	17	14	12	13	13
12	39	44	17	19	34	28	17	17	14	12	13	13
13	39	40	19	19	32	23	16	18	13	16	13	12
14	39	40	18	19	21	22	17	18	13	13	14	12
15	38	40	18	19	19	21	17	18	15	14	16	12
16	37	40	17	20	18	20	17	18	70	17	14	12
17	37	38	17	23	17	21	16	17	40	14	14	12
18	37	38	18	36	18	20	15	21	26	12	13	13
19	37	42	19	37	19	15	15	17	22	11	13	15
20	38	44	19	39	17	19	15	17	20	11	13	15
21	39	43	20	40	17	19	15	20	17	10	13	15
22	50	43	34	40	19	17	16	20	14	19	13	15
23	52	43	21	40	21	18	16	17	13	12	13	15
24	38	43	19	40	20	17	17	16	19	11	13	16
25	36	43	19	40	20	17	17	17	18	10	14	16
26	38	43	19	39	18	18	17	16	16	23	56	16
27	38	43	19	39	18	17	16	17	16	24	16	90
28	38	43	20	40	17	17	16	27	17	11	13	28
29	42	50	24	39	---	17	17	22	17	11	12	16
30	38	44	22	39	---	16	16	15	17	12	17	16
31	39	---	19	38	---	17	---	15	---	14	18	---
TOTAL	1053	1269	793	866	674	588	503	593	576	419	476	507
MEAN	34.0	42.3	25.6	27.9	24.1	19.0	16.8	19.1	19.2	13.5	15.4	16.9
MAX	52	66	59	40	40	28	20	61	70	24	56	90
MIN	14	37	15	16	16	15	15	14	13	10	12	12

CAL YR 1984 TOTAL 25599 MEAN 69.9 MAX 1300 MIN 14
WTR YR 1985 TOTAL 8317 MEAN 22.8 MAX 90 MIN 10

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 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 22.51 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by De Forest Lake and Lake Tappan (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.

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

AVERAGE DISCHARGE.--44 years, 89.0 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft³/s, May 30, 1984, gage height, 7.85 ft; no flow part of Jan. 16, 1970 and May 30, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 473 ft³/s, Sept. 27, gage height, 3.06 ft; minimum, 14 ft³/s, Apr. 14, 15, 16, 17, gage height 1.51 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	39	31	26	69	19	20	66	39	19	19	23
2	72	39	30	32	48	19	15	70	24	18	18	23
3	66	39	53	29	36	18	15	124	22	19	17	21
4	91	39	40	27	45	19	15	39	22	18	17	21
5	106	100	33	27	56	27	15	29	38	18	17	21
6	127	38	61	26	57	20	16	27	26	22	17	21
7	136	31	33	69	57	19	15	41	22	22	17	21
8	137	29	29	126	56	21	15	27	23	19	21	21
9	121	29	29	97	64	20	16	26	23	18	18	47
10	99	22	27	52	74	19	15	24	22	18	18	29
11	100	24	27	51	74	18	15	24	19	18	18	24
12	115	28	27	126	105	31	15	23	19	18	18	22
13	128	22	26	125	64	21	15	24	18	23	18	20
14	134	20	26	124	40	19	15	23	18	18	17	21
15	140	20	26	124	37	18	14	23	18	18	17	20
16	138	21	26	107	36	18	14	23	70	20	17	20
17	135	20	26	88	36	18	34	21	35	18	18	20
18	133	21	26	88	36	18	61	24	32	18	17	20
19	131	22	26	88	33	16	59	21	23	17	19	20
20	129	21	27	88	27	16	50	21	21	17	76	20
21	127	32	28	86	26	16	42	41	20	17	130	20
22	120	49	52	86	26	16	41	41	20	33	129	20
23	105	49	30	101	27	17	47	21	19	19	129	20
24	40	75	28	113	26	16	59	21	22	18	128	22
25	37	106	28	113	25	16	59	21	21	18	108	21
26	39	105	27	112	25	16	63	21	19	32	204	22
27	38	104	27	111	24	16	61	24	19	31	40	178
28	39	104	26	91	19	17	63	46	21	18	25	35
29	55	81	31	85	---	17	63	38	20	18	24	24
30	41	33	30	43	---	15	66	22	19	18	34	23
31	40	---	26	58	---	16	---	22	---	18	30	---
TOTAL	3013	1362	962	2519	1248	572	1013	1018	734	616	1395	840
MEAN	97.2	45.4	31.0	81.3	44.6	18.5	33.8	32.8	24.5	19.9	45.0	28.0
MAX	140	106	61	126	105	31	66	124	70	33	204	178
MIN	37	20	26	26	19	15	14	21	18	17	17	20

CAL YR 1984 TOTAL 52052 MEAN 142 MAX 2190 MIN 20
WTR YR 1985 TOTAL 15292 MEAN 41.9 MAX 204 MIN 14

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 and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 03...	1040	66	281	7.9	13.0	9.5	90	2.7	330	490
FEB 04...	1100	39	461	7.8	.5	15.5	105	2.4	130	23
MAR 27...	1100	16	450	7.9	8.0	12.2	103	2.0	--	--
JUN 13...	1200	18	431	7.8	18.5	6.8	74	1.7	110	350
JUL 11...	1130	19	430	7.8	22.0	6.7	77	2.4	330	170
AUG 28...	1130	25	390	7.7	21.5	6.6	75	3.6	1100	790

DATE	HARD-NESS (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 03...	91	28	5.1	19	1.8	72	17	31	<.10
FEB 04...	130	39	7.3	45	2.4	84	24	81	.10
MAR 27...	130	40	7.7	36	1.7	87	25	67	<.10
JUN 13...	130	38	7.5	36	1.9	89	23	63	.10
JUL 11...	120	37	7.1	32	2.4	91	22	64	.20
AUG 28...	110	33	6.8	30	2.2	75	20	53	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 03...	1.8	150	.010	.25	.110	.53	.78	.050	4.6
FEB 04...	3.5	250	.010	.88	.790	1.6	2.5	.060	4.7
MAR 27...	3.1	230	.015	E1.1	E.120	.84	--	.050	4.9
JUN 13...	5.1	230	.038	.68	.230	.84	1.5	.100	6.4
JUL 11...	6.1	230	.041	.64	.320	.86	1.5	.100	5.7
AUG 28...	7.3	200	.069	.87	.400	.90	1.8	.070	5.3

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 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 28.62 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. 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.

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

AVERAGE DISCHARGE.--51 years, 55.3 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft³/s, Sept. 12, 1971, gage height, 7.57 ft; minimum, 5.6 ft³/s, June 29, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 26	1515	703	4.16	Sept. 27	2015	*828	*4.46

Minimum discharge, 9.9 ft³/s, Oct. 8, gage height, 1.44 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	34	27	44	28	47	58	16	65	24	36	38
2	29	63	34	56	34	47	49	35	40	23	31	34
3	26	60	68	55	34	44	44	137	32	30	25	32
4	18	57	53	48	28	44	42	61	27	39	22	34
5	15	141	50	46	27	60	40	54	55	33	22	33
6	15	77	84	44	28	56	41	50	48	39	21	32
7	13	66	53	44	28	52	41	84	34	36	20	28
8	13	61	48	43	23	58	41	51	33	31	34	27
9	15	54	45	38	25	53	39	48	36	29	30	70
10	16	52	42	36	25	48	41	46	31	26	55	52
11	16	57	70	35	27	46	43	47	26	24	88	36
12	15	62	65	33	114	76	39	47	25	23	102	30
13	10	48	62	33	107	72	36	49	24	38	83	29
14	11	43	55	31	79	66	34	45	21	32	82	26
15	13	38	51	31	66	62	35	43	21	31	85	25
16	18	40	43	26	62	58	34	42	106	47	76	24
17	13	40	29	29	54	56	32	41	59	41	73	23
18	12	38	27	30	50	54	30	52	59	27	45	23
19	12	34	33	31	60	47	30	52	43	22	20	20
20	13	28	41	27	61	47	31	43	39	20	22	20
21	12	32	43	25	59	46	29	60	36	18	21	19
22	37	31	82	25	59	43	28	69	32	57	21	19
23	51	33	52	25	61	50	28	45	29	54	19	18
24	16	33	47	25	63	51	28	29	30	36	19	23
25	14	33	44	27	60	50	28	27	37	32	34	21
26	16	31	39	26	59	44	29	25	28	90	337	22
27	15	29	41	25	55	44	27	35	25	142	106	375
28	14	31	42	26	50	44	25	81	28	55	43	159
29	44	66	49	26	---	41	26	65	28	42	35	62
30	19	35	47	26	---	41	22	40	28	35	63	53
31	22	---	44	25	---	44	---	33	---	34	58	---
TOTAL	573	1447	1510	1041	1426	1591	1050	1552	1125	1210	1728	1407
MEAN	18.5	48.2	48.7	33.6	50.9	51.3	35.0	50.1	37.5	39.0	55.7	46.9
MAX	51	141	84	56	114	76	58	137	106	142	337	375
MIN	10	28	27	25	23	41	22	16	21	18	19	18

CAL YR 1984 TOTAL 26853 MEAN 73.4 MAX 740 MIN 10
WTR YR 1985 TOTAL 15660 MEAN 42.9 MAX 375 MIN 10

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 mi²

WATER-DISCHARGE RECORDS

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.

GAGE.--Water-stage recorder above south dam. Datum of gage is 6.25 ft above National Geodetic Vertical Datum of 1929. 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 discharge. Records 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 diverted at gage, De Forest Lake, and West Nyack, NY, for municipal supply (see Hackensack River basin, diversions). Several measurements of water temperature were made during the year.

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

AVERAGE DISCHARGE.--64 years, 101 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s, Nov. 9, 1977 and Apr. 5, 1984; maximum gage height, 7.96 ft, April 5, 1984; no flow many days during most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 49 ft³/s, Oct. 23, gage height, 1.85 ft; minimum daily, 0.12 ft³/s,several days in June, July, and August.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	.63	.57	.57	.51	.52	.54	.55	.15	.13	.15	.14
2	.59	.50	.48	.54	.58	.51	.52	.55	.15	.13	.14	.14
3	.45	.63	.42	.52	.58	.56	.56	.55	.14	.12	.13	.14
4	.46	.54	.52	.50	.43	.58	.52	.53	.15	.13	.13	.13
5	.52	3.0	.49	.52	.45	.52	.52	.53	.14	.13	.15	.14
6	.46	.50	.56	.69	.48	.53	.52	.47	.13	.15	.12	.14
7	.48	.48	.54	.49	.52	.52	.50	.55	.15	.12	.13	.14
8	.58	.48	.53	.62	.52	.49	.50	.52	.16	.14	.13	.13
9	.44	.51	.51	.53	.45	.51	.56	.49	.13	.12	.12	.15
10	.50	.47	.51	.49	.63	.52	.51	.53	.13	.13	.13	.14
11	.44	.47	.50	.53	.47	.49	.50	.47	.15	.13	.13	.15
12	.49	.55	.59	.52	.45	.54	.52	.57	.14	.14	.13	.14
13	.53	.65	.52	.64	.64	.55	.52	.51	.15	.14	.13	.14
14	.62	.56	.54	.62	.57	.52	.43	.40	.14	.15	.15	.13
15	.57	.50	.49	.55	.60	.55	.56	.49	.13	.14	.13	.14
16	.54	.58	.50	.70	.56	.58	.45	.49	.14	.13	.13	.14
17	.55	.59	.47	.54	.53	.50	.50	.54	.13	.14	.14	.13
18	.56	.60	.44	.56	.53	.60	.53	.53	.13	.14	.16	.14
19	.57	.55	.49	.52	.53	.51	.60	.66	.16	.13	.13	.13
20	.60	.54	.46	.49	.61	.51	.47	.53	.13	.13	.14	.15
21	.56	.48	.54	.59	.57	.49	.51	.27	.13	.12	.13	.15
22	.76	.57	.56	.47	.53	.58	.51	.14	.13	.13	.13	.16
23	4.3	.50	.47	.58	.48	.55	.53	.14	.14	.13	.13	.14
24	.39	.57	.52	.53	.53	.57	.55	.13	.14	.14	.14	.14
25	.60	.57	.49	.55	.58	.54	.56	.13	.13	.12	.14	.16
26	.55	.50	.50	.53	.50	.53	.47	.15	.14	.13	.16	.15
27	.58	.59	.46	.55	.55	.55	.46	.14	.14	.13	.15	.18
28	.59	.60	.50	.59	.49	.50	.54	.16	.13	.14	.15	.13
29	.70	.56	.48	.46	---	.51	.49	.14	.14	.13	.14	.13
30	.61	.54	.48	.56	---	.49	.52	.15	.12	.14	.15	.13
31	.95	---	.49	.58	---	.46	---	.14	---	.14	.14	---
TOTAL	20.96	18.81	15.62	17.13	14.87	16.38	15.47	12.15	4.17	4.12	4.26	4.25
MEAN	.68	.63	.50	.55	.53	.53	.52	.39	.14	.13	.14	.14
MAX	4.3	3.0	.59	.70	.64	.60	.60	.66	.16	.15	.16	.18
MIN	.39	.47	.42	.46	.43	.46	.43	.13	.12	.12	.12	.13

CAL YR 1984 TOTAL 62680.29 MEAN 171 MAX 4230 MIN .39
WTR YR 1985 TOTAL 148.19 MEAN .41 MAX 4.3 MIN .12

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, 0.85 mi north of West Nyack, NY. DRAINAGE AREA, 27.5 mi². PERIOD OF RECORD, February 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
REMARKS.--Reservoir is formed by earthfill dam with sheet piling cutoff and concrete spillway; dam completed and storage began in February 1956. Total capacity at crest of dam 4,068,000,000 gal, elevation, 80.00 ft. Crest of dam topped by two 50-foot Bascule gates 5 ft high. 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.
REVISED RECORDS.--WDR NJ-84-1: Drainage area.

01376950 LAKE TAPPAN.--Lat 41°01'05", long 74°00'05", Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River, 0.50 mi north of Old Tappan. DRAINAGE AREA, about 49.0 mi². PERIOD OF RECORD, October 1966 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
REMARKS.--Reservoir is formed by earthfill dam, completed in 1966. Capacity at spillway level, 3,378,000,000 gal, elevation, 55.00 ft. Flow regulated by four Bascule gates and one sluice gate. Water is released 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, 0.75 mi north of Hillsdale. DRAINAGE AREA, 19.4 mi². PERIOD OF RECORD, December 1929 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
REMARKS.--Reservoir is formed by earthfill dam, completed about 1905. Capacity at spillway level, 835,000,000 gal, elevation, 94.33 ft. Flow is regulated by flashboards and one 36-inch gate in center of dam. Water is released for diversion at New Milford 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 mi². PERIOD OF RECORD, December 1922 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
REMARKS.--Reservoir is formed by hollow concrete dam, completed in 1922. Capacity at spillway level, 3,267,000,000 gal, elevation, 23.16 ft. Flow regulated by seven sluice gates (7 by 9 ft). Water is released for diversion by Hackensack Water Co., 1 mi downstream from dam for municipal supply.
COOPERATION.--Records provided by Hackensack Water Company.
REVISED RECORDS.--WDR NJ-84-1: Spillway elevation.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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)
	01376700 DE FOREST LAKE			01376950 LAKE TAPPAN		
Sept. 30.....	81.93	4,699	-	48.09	1,672	-
Oct. 31.....	79.75	4,043	-32.7	44.47	839	-41.6
Nov. 30.....	77.49	3,382	-34.1	46.58	1,295	+23.5
Dec. 31.....	77.17	3,290	-4.6	49.02	1,925	+31.4
CAL YR 1984	-	-	-3.6	-	-	+9.1
Jan. 31.....	75.52	2,822	-23.4	46.20	1,206	-35.9
Feb. 29.....	75.32	2,766	-3.1	47.35	1,482	+15.2
Mar. 31.....	75.30	2,761	-0.2	49.14	1,958	+23.8
Apr. 30.....	74.39	2,510	-13.0	48.68	1,831	-6.5
May 31.....	75.55	2,830	+16.0	50.67	2,406	+28.7
June 30.....	77.30	3,327	+25.6	52.65	3,037	+32.5
July 31.....	77.60	3,414	+4.4	63.55	3,341	+15.2
Aug. 31.....	78.16	3,576	+8.1	53.67	3,383	+2.1
Sept. 30.....	79.06	3,839	+13.6	54.93	3,827	+22.9
WTR YR 1985	-	-	-3.6	-	-	+9.1

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)
	01377450 WOODCLIFF LAKE			01378480 ORADELL RESERVOIR		
Sept. 30.....	67.60	0	-	18.68	2,391	-
Oct. 31.....	67.60	0	0	19.49	2,579	+9.4
Nov. 30.....	67.60	0	0	19.04	2,474	-5.4
Dec. 31.....	67.60	0	0	18.31	2,307	-8.3
CAL YR 1984	-	-	0	-	-	-5.2
Jan. 31.....	67.60	0	0	18.15	2,271	-1.8
Feb. 29.....	67.60	0	0	19.57	2,598	+18.1
Mar. 31.....	67.60	0	0	18.84	2,428	-8.5
Apr. 30.....	69.20	4	+0.2	16.54	1,916	-26.4
May 31.....	80.50	186	+9.1	20.73	2,877	+48.0
June 30.....	90.36	562	+19.4	21.09	2,966	+4.6
July 31.....	90.08	548	-0.7	18.84	2,428	-26.8
Aug. 31.....	86.12	375	-8.6	20.88	2,914	+24.3
Sept. 30.....	90.70	578	+10.5	20.69	2,868	-2.4
WR YR 1985	-	-	+2.4	-	-	+2.0

† 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 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 at 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 (sta 01376800) 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 2.0 mi upstream from gaging station on Hackensack River at New Milford and from Hackensack River about 50 ft above gaging station on Hackensack River at New Milford, NJ (sta 01378500). Water returned to Lake Tappan excluded. 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.

01387991 Hackensack Water Co. diverts water from the Ramapo River by pumping from Pompton Lake above the gaging station into Oradell Reservoir on the Hackensack River, for municipal supply. Pumping began Feb. 14, 1985. Records provided by Hackensack Water Co.

01391210 Hackensack Water Co., diverts water from Saddle River 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 1984 TO SEPTEMBER 1985

MONTH	01376699 SPRING VALLEY WATER CO.	01376810 WEST NYACK, NY	01378490 HACKENSACK WATER CO.
October	13.4	2.55	143
November	13.4	2.53	136
December	12.7	2.50	141
CAL YR 1984	10.4	2.79	150
January	11.8	2.70	145
February	12.1	2.73	135
March	9.46	2.65	132
April	6.74	2.64	125
May	2.23	2.65	114
June	0	2.65	114
July	0	2.74	126
August	0	2.78	131
September	0	2.72	132
WTR YR 1985	6.80	2.65	131

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 (sta 01378490).

MONTH	01376272 SPARKILL CREEK (HUDSON RIVER BASIN)	01378520 HIRSHFELD BROOK (HACKENSACK RIVER BASIN)	01387991 RAMAPO RIVER (PASSAIC RIVER BASIN)	01391210 SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October	0	0	0	0	0.84
November	0	2.27	0	12.9	1.91
December	0	2.51	0	14.8	1.16
CAL YR 1984	0	0.40	0	2.30	0.38
January	0	0.55	0	13.0	1.17
February	1.17	2.63	6.99	17.8	2.80
March	1.81	1.44	26.0	20.4	2.99
April	1.98	2.35	16.7	14.7	2.77
May	1.81	3.05	27.4	20.7	2.56
June	1.73	3.23	28.2	21.4	2.60
July	0.84	2.43	17.3	14.9	2.62
August	0.04	2.47	14.8	13.4	2.69
September	0.08	2.62	5.54	12.8	2.55
WTR YR 1985	.78	2.12	11.9	14.7	2.21

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, 0.7 mi northwest of Millington, and 1.8 mi downstream from Black Brook.

DRAINAGE AREA.--55.4 mi².

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 National Geodetic Vertical Datum of 1929 (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 discharge. Records good except those from Oct. 1 to June 17, which are fair. 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.

AVERAGE DISCHARGE.--65 years (water years 1905, 1921-85) 90.7 ft³/s, 22.22 in/yr, adjusted for diversion water years 1970-1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/s, Jan. 9, 1905, gage height, 7.8 ft, from graph based on gage readings, site and datum then in use, from rating curve extended above 1,400 ft³/s on basis of velocity-area study; maximum gage height, 9.73 ft, Aug. 29, 1971; minimum discharge, 0.2 ft³/s, Sept. 12, 13, 1966, gage height, 3.76 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	0615	*575	*6.86	No other peak greater than base discharge.			

Minimum discharge, 10 ft³/s, Aug. 24, gage height, 4.30 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	62	82	125	16	99	53	14	50	34	50	40
2	25	59	73	123	18	88	51	17	40	29	35	31
3	22	49	82	149	18	75	46	196	28	34	27	28
4	17	41	128	105	17	67	45	299	26	31	22	25
5	15	142	106	98	16	84	40	210	54	27	20	21
6	14	210	172	85	17	88	37	173	97	26	18	18
7	14	142	222	82	17	72	33	135	61	29	16	17
8	13	125	162	77	16	71	30	103	58	25	27	17
9	13	107	141	57	16	70	28	79	56	23	26	18
10	14	93	129	39	20	63	25	63	43	21	18	23
11	13	82	117	37	20	56	24	49	32	20	18	34
12	13	87	101	36	49	93	24	39	27	18	18	22
13	13	75	88	29	228	136	22	27	24	20	16	19
14	13	64	77	26	193	99	20	27	21	19	15	18
15	12	55	72	24	217	89	20	24	19	18	15	17
16	12	51	69	23	212	76	19	21	76	19	14	16
17	12	45	63	21	154	68	18	21	189	18	13	13
18	13	39	57	20	114	69	16	73	159	16	12	13
19	13	39	54	19	107	66	18	81	142	15	12	12
20	14	34	69	18	112	59	26	50	131	15	12	12
21	15	30	67	17	109	49	27	59	104	14	12	12
22	18	29	155	16	126	41	21	193	74	16	12	12
23	69	27	164	16	194	41	18	144	53	15	11	12
24	78	27	133	16	216	42	17	110	47	14	10	13
25	38	26	124	17	203	39	18	97	54	13	17	13
26	36	24	101	17	178	36	19	77	39	36	56	14
27	36	23	80	17	157	34	18	57	34	130	55	235
28	28	22	88	17	124	33	16	44	34	103	36	532
29	137	85	143	17	---	33	15	45	36	60	35	413
30	136	120	155	16	---	31	14	35	44	55	39	359
31	64	---	131	15	---	30	---	32	---	49	67	---
TOTAL	946	2014	3405	1374	2884	1997	778	2594	1852	962	754	2029
MEAN	30.5	67.1	110	44.3	103	64.4	25.9	83.7	61.7	31.0	24.3	67.6
MAX	137	210	222	149	228	136	53	299	189	130	67	532
MIN	12	22	54	15	16	30	14	14	19	13	10	12
CFSM	.55	1.21	1.99	.80	1.86	1.16	.47	1.51	1.11	.56	.44	1.22
IN.	.64	1.35	2.29	.92	1.94	1.34	.52	1.74	1.24	.65	.51	1.36

CAL YR 1984 TOTAL 51119 MEAN 140 MAX 1330 MIN 10 CFSM 2.53 IN. 34.33
WTR YR 1985 TOTAL 21589 MEAN 59.1 MAX 532 MIN 10 CFSM 1.07 IN. 14.50

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 and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 11...	1300	13	259	7.9	15.0	6.8	67	2.1	<200	<200
FEB 13...	1100	249	251	7.2	.0	13.6	95	10	350	920
APR 02...	1045	50	249	7.6	8.0	9.6	83	1.8	--	--
JUN 10...	1030	44	198	7.2	19.5	4.6	51	1.6	330	3500
JUL 24...	1030	14	224	7.4	22.5	4.4	51	1.8	80	33
AUG 27...	1030	60	215	7.1	22.5	5.0	58	2.7	2200	3500

DATE	HARD-NESS (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 11...	79	19	7.6	18	2.2	56	22	28	<.10
FEB 13...	51	12	5.0	27	2.0	20	15	51	<.10
APR 02...	73	18	6.9	19	1.7	50	20	35	.10
JUN 10...	65	16	6.0	14	.40	51	12	21	.10
JUL 24...	75	19	6.8	15	1.1	61	16	24	<.10
AUG 27...	60	15	5.5	14	1.9	42	19	21	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 11...	13	140	.005	.10	.060	.36	.46	.100	3.8
FEB 13...	8.2	130	.024	1.5	.440	1.1	2.6	.140	4.4
APR 02...	6.3	140	.015	.36	.100	.72	1.1	.110	6.6
JUN 10...	13	110	.014	.18	.260	.73	.91	.200	8.5
JUL 24...	16	130	.009	.08	.190	.66	.74	.170	6.6
AUG 27...	15	120	.010	.15	.110	.63	.78	.180	8.6

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 11...	1300	<.5	10	1	<10	60	<1	<10	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)	PHENOLS TOTAL (UG/L)
OCT 11...	1000	1	150	<.1	4	<1	10	<1

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 mi².

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.

GAGE.--Water-stage recorder. Concrete control since Sept. 19, 1938. Datum of gage is 193.51 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 31, 1911, nonrecording gage at bridge 150 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 21-28, July 4-28, and Sept. 14-30. Records good except those for period of ice effect, Jan. 21-28, and periods of no gage-height record, July 4-28, and Sept. 14-30, which are poor. 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. Gage-height telemeter at station.

AVERAGE DISCHARGE.--56 years (water years 1904-11, 1938-85), 171 ft³/s, 23.22 in/yr, adjusted for diversion water years 1970-79.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,380 ft³/s, Aug. 2, 1973, gage height, 9.36 ft, from floodmark; minimum, 2.0 ft³/s, many days in May and June 1903, August and October 1905, September and October 1906, and September 11, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 26	0345	836	5.42	Sept. 28	unknown	*960	unknown

Minimum discharge, 20 ft³/s, Aug. 24, gage height, 3.20 ft.

CORRECTION.--The gage height for the peak of Apr. 6, 1984 was omitted in the 1984 report. It was 7.26 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	78	122	182	44	170	106	32	77	70	103	75
2	45	72	95	220	54	149	105	46	78	57	77	52
3	41	67	119	266	52	130	84	446	59	63	52	45
4	34	59	173	216	48	115	77	613	48	59	41	42
5	29	292	147	194	44	154	71	529	138	48	36	38
6	27	322	327	170	44	165	66	367	214	47	34	34
7	25	213	401	148	45	130	66	237	127	55	32	31
8	25	141	290	144	44	120	60	165	90	48	56	30
9	25	117	194	125	43	122	57	121	83	40	63	34
10	26	103	161	164	45	108	54	97	74	38	43	52
11	26	125	150	107	49	98	51	80	60	36	34	112
12	25	127	135	102	154	194	50	66	50	34	37	120
13	23	101	116	74	402	274	47	57	45	40	32	105
14	21	84	103	73	579	204	45	49	40	37	30	96
15	21	74	99	63	524	161	46	45	37	36	31	83
16	21	67	96	78	372	134	47	41	196	52	27	68
17	21	63	89	49	331	115	45	41	265	41	25	48
18	22	58	84	49	239	105	41	193	260	32	24	27
19	22	57	85	48	185	102	42	189	193	29	23	24
20	22	55	96	43	198	97	51	107	162	29	23	24
21	21	50	107	41	199	88	55	100	140	30	23	23
22	48	47	274	42	201	77	50	331	110	37	23	22
23	167	43	269	45	325	74	45	340	80	30	23	23
24	115	42	193	46	375	76	41	216	89	26	21	43
25	78	42	162	45	352	73	40	151	107	22	62	34
26	59	42	139	45	297	65	41	119	78	113	392	27
27	56	40	119	44	252	60	40	94	58	212	172	389
28	53	40	116	42	209	58	37	79	56	130	80	735
29	239	146	227	41	---	58	35	80	58	164	54	423
30	200	160	281	39	---	57	34	70	83	102	79	345
31	120	---	206	38	---	58	---	57	---	84	83	---
TOTAL	1692	2927	5175	2983	5706	3591	1629	5158	3155	1841	1835	3204
MEAN	54.6	97.6	167	96.2	204	116	54.3	166	105	59.4	59.2	107
MAX	239	322	401	266	579	274	106	613	265	212	392	735
MIN	21	40	84	38	43	57	34	32	37	22	21	22
CFSM	.55	.98	1.67	.96	2.04	1.16	.54	1.66	1.05	.59	.59	1.07
IN.	.63	1.09	1.93	1.11	2.12	1.34	.61	1.92	1.17	.68	.68	1.19

CAL YR 1984 TOTAL 92077 MEAN 252 MAX 1880 MIN 21 CFSM 2.52 IN. 34.25
WTR YR 1985 TOTAL 38896 MEAN 107 MAX 735 MIN 21 CFSM 1.07 IN. 14.47

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 and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 11...	1030	25	590	7.4	15.5	6.2	62	3.5	200	2300
FEB 14...	1100	553	358	7.3	.0	12.6	86	4.2	3500	2400
APR 02...	1330	103	358	7.7	9.0	10.1	89	3.9	--	--
JUN 10...	1345	74	406	7.7	21.0	6.7	77	3.3	800	7900
JUL 25...	1100	22	405	7.4	24.0	5.1	60	3.8	1100	5400
AUG 27...	1300	156	274	7.3	23.0	6.0	70	5.1	>24000	9200

DATE	HARD-NESS (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 11...	110	28	10	73	3.5	69	54	95	.30
FEB 14...	61	15	5.7	48	2.2	21	26	79	<.10
APR 02...	88	22	8.0	34	1.8	53	33	53	.10
JUN 10...	88	22	8.1	48	1.3	61	22	70	.20
JUL 25...	110	28	8.9	37	3.6	70	35	57	.30
AUG 27...	56	14	5.0	26	2.4	39	23	34	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 11...	13	320	.186	2.7	.800	1.6	4.3	.760	4.8
FEB 14...	8.4	200	.025	1.5	.360	1.1	2.6	.270	4.8
APR 02...	11	190	.041	1.1	.510	1.2	2.3	.340	6.0
JUN 10...	15	220	.093	1.2	.460	1.3	2.5	.450	4.7
JUL 25...	13	220	.365	2.8	.940	1.6	4.4	.660	7.3
AUG 27...	11	140	.052	.88	.280	1.2	2.1	.390	12

01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 11...	1030	<.5	20	1	<10	150	<1	10	4
JUN 10...	1345	<.5	<10	1	<10	20	1	10	7

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)	PHENOLS TOTAL (UG/L)
OCT 11...	1100	2	140	.1	10	<1	40	12
JUN 10...	1900	8	180	.3	9	<1	30	<1

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 mi³.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 682.8 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges May 1-13. Records fair. Several measurements of water temperature were made during the year. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 11, 1936, reached a stage of 6.72 ft, present datum, discharge not determined. Flood of April 5, 1984, reached a stage of 9.05 ft, from floodmarks, discharge 1,290 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period May to September, 184 ft³/s, Sept. 28, gage height, 5.63 ft; minimum, 9.8 ft³/s, Aug. 24, 25, Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						†51		11	40	23	47	14
2								25	27	21	37	14
3								120	23	20	30	14
4								95	25	19	26	12
5								80	32	17	24	11
6								70	34	17	22	11
7								80	28	22	19	10
8								60	28	18	26	11
9								52	28	17	27	11
10								45	26	17	24	13
11								40	22	17	22	15
12								35	21	16	20	13
13								31	18	30	17	13
14								23	16	30	16	13
15								21	17	28	17	14
16	†6.7							21	57	33	16	14
17								22	60	34	15	13
18								44	57	30	14	12
19								42	49	24	13	12
20								41	43	21	13	12
21								40	38	19	13	11
22								40	32	32	12	12
23								31	30	34	10	11
24								26	34	26	10	12
25								23	32	21	14	12
26								21	26	39	21	12
27								21	23	72	18	96
28						†23		25	23	54	16	166
29								32	24	45	14	161
30								29	26	40	14	105
31								29	--	39	16	---
TOTAL								1275	939	875	603	850
MEAN								41.1	31.3	28.2	19.5	28.3
MAX								120	60	72	47	166
MIN								11	16	16	10	10

† Result of discharge measurements.

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 mi².

WATER-DISCHARGE RECORD

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 712.54 ft above National Geodetic Vertical Datum of 1929 (U.S. Army, Picatinny Arsenal, bench mark).

REMARKS.--Estimated daily discharges: Nov. 28 to Dec. 18, Jan. 21-23, and Feb. 5-10. Records good except those for periods of no gage-height record, Nov. 28 to Dec. 18, Jan. 21-23, and Feb. 5-10, which are fair. Some regulation by Lake Denmark and Green Pond. Several measurements of water temperature, other than those published, were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 333 ft³/s, Apr. 5, 1984, gage height, 3.51 ft; minimum, 1.5 ft³/s, Nov. 27, 28, 1984, gage height, 1.30 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1200	*60	*2.32	No peak greater than base discharge.			

Minimum discharge, 1.5 ft³/s, Nov. 27, 28, gage height, 1.30 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	1.9	3.3	12	4.9	16	7.0	2.4	11	8.6	14	3.6
2	3.8	1.9	2.6	13	5.0	15	6.0	3.8	8.7	7.4	11	3.4
3	3.2	1.8	3.5	13	5.1	14	6.0	19	7.6	6.8	8.7	3.2
4	2.8	1.8	3.7	12	5.3	13	5.8	20	6.6	6.2	7.3	3.1
5	2.7	2.8	3.1	12	4.8	16	5.4	19	10	5.4	6.3	3.1
6	2.6	2.4	4.5	10	5.4	15	5.3	18	11	5.3	5.5	3.1
7	2.4	2.0	4.3	10	5.4	13	5.1	20	8.7	5.8	5.0	3.0
8	2.4	1.9	3.9	9.2	5.2	14	5.1	16	8.3	5.0	6.6	3.1
9	2.4	1.8	3.8	7.6	5.0	13	4.9	13	8.1	4.5	6.0	3.1
10	2.4	1.8	4.0	6.3	4.7	12	4.2	11	6.9	4.2	5.1	3.5
11	2.4	1.9	4.3	5.9	4.8	12	3.8	9.4	5.9	3.7	4.5	3.6
12	2.3	1.9	4.1	5.6	7.5	14	3.7	8.3	5.3	3.5	4.3	3.2
13	2.2	1.9	3.9	5.3	8.4	15	3.5	7.2	4.6	6.1	4.1	3.0
14	2.1	1.8	3.9	6.2	11	14	3.5	6.2	3.9	5.2	3.8	2.9
15	1.9	1.8	3.9	7.1	11	13	3.4	5.1	3.6	5.3	4.3	2.8
16	1.7	1.8	3.8	6.6	10	12	3.6	4.3	18	6.6	4.3	2.7
17	1.7	1.8	3.7	6.4	10	11	3.5	4.2	22	5.6	4.1	2.7
18	1.7	1.8	3.8	6.5	10	10	3.1	11	25	4.6	3.8	2.7
19	1.7	1.8	3.7	6.5	10	8.7	2.8	9.0	22	3.9	3.7	2.7
20	1.7	1.7	3.6	6.0	11	8.3	2.9	7.4	19	3.6	3.7	2.7
21	1.6	1.7	3.9	5.8	10	8.1	2.8	7.7	16	3.4	3.6	2.7
22	2.5	1.7	7.7	5.6	11	7.5	2.7	9.1	13	7.3	3.4	2.7
23	3.9	1.7	6.9	5.5	13	8.2	2.6	7.4	11	6.7	3.3	2.6
24	2.5	1.7	7.3	5.5	16	8.1	2.7	6.6	12	5.1	3.2	2.7
25	2.1	1.7	8.4	5.8	20	6.7	2.8	5.6	11	4.4	4.1	2.6
26	2.0	1.7	7.6	5.7	21	5.1	2.8	4.4	9.5	11	5.2	2.8
27	2.0	1.6	8.3	5.4	20	4.7	2.7	4.5	8.2	19	4.2	30
28	1.9	1.7	8.7	5.1	18	4.5	2.6	6.7	7.0	15	3.7	27
29	2.1	6.4	11	5.0	---	4.6	2.6	9.2	7.8	13	3.4	31
30	2.0	4.0	12	4.9	---	4.7	2.2	6.5	10	11	3.6	27
31	1.9	---	12	4.9	---	5.7	---	5.8	---	11	3.8	---
TOTAL	71.5	62.2	169.2	226.4	273.5	326.9	115.1	287.8	321.7	214.2	157.6	192.3
MEAN	2.31	2.07	5.46	7.30	9.77	10.5	3.84	9.28	10.7	6.91	5.08	6.41
MAX	3.9	6.4	12	13	21	16	7.0	20	25	19	14	31
MIN	1.6	1.6	2.6	4.9	4.7	4.5	2.2	2.4	3.6	3.4	3.2	2.6
CFSM	.30	.27	.71	.95	1.28	1.37	.50	1.21	1.40	.90	.66	.84
IN.	.35	.30	.82	1.10	1.33	1.59	.56	1.40	1.56	1.04	.77	.94

CAL YR 1984 TOTAL 6543.2 MEAN 17.9 MAX 248 MIN 1.6 CFSM 2.34 IN. 31.82
WTR YR 1985 TOTAL 2418.4 MEAN 6.63 MAX 31 MIN 1.6 CFSM .87 IN. 11.76

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

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1983 to current year.
pH: November 1983 to current year.
WATER TEMPERATURE: November 1983 to current year.
DISSOLVED OXYGEN: November 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1983.

REMARKS.--Missing continuous water-quality records are the result of malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 169 microsiemens, Feb. 12, 1985; minimum, 48 microsiemens, July 13, 14, 16, 17, 1984.
pH: Maximum, 8.2, Aug. 28, 30, 31 and Sept. 3, 1984; minimum, 6.3, Apr. 13, 1984.
WATER TEMPERATURE: Maximum, 25.5°C, Aug. 15, 1985; minimum, 0°C on many days during the winter months.
DISSOLVED OXYGEN: Maximum, 14.6 mg/L, Jan. 12, 13, 1984; minimum, 6.8 mg/L, Sept. 6-9, 1985.

EXTREMES FOR THE CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 169 microsiemens, Feb. 12; minimum, 53 microsiemens, Sept. 30.
pH: Maximum, 7.4, Oct. 30, 31 and Nov. 4-8; minimum, 6.5, May 13, 14, 16-18, 23-27 and Sept. 27, 28.
WATER TEMPERATURE: Maximum, 25.5°C, Aug. 15; minimum, 0°C on many days during the winter months.
DISSOLVED OXYGEN: Minimum, 6.8 mg/L, Sept. 6-9.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	65	56	59	72	70	71	88	84	86	69	67	68
2	65	59	62	72	70	71	84	81	82	74	69	72
3	59	58	59	71	68	70	106	79	87	73	69	70
4	58	56	57	70	67	69	98	83	87	71	70	70
5	57	55	56	98	68	83	84	79	81	70	69	70
6	57	55	56	81	78	80	98	75	89	71	70	70
7	57	55	56	78	75	76	88	81	83	75	71	72
8	58	56	57	76	73	74	81	77	79	74	71	72
9	58	56	57	75	72	73	79	76	78	75	73	74
10	58	57	58	74	72	73	83	78	79	76	74	75
11	59	57	58	75	71	73	83	81	82	78	76	77
12	59	57	58	77	72	74	81	78	79	78	76	77
13	59	56	58	74	71	73	78	76	77	77	75	76
14	59	57	58	73	71	72	75	74	75	78	74	76
15	59	57	58	73	71	72	78	75	77	75	71	73
16	60	58	59	73	71	72	77	75	76	76	72	74
17	61	59	60	73	71	72	77	75	76	75	72	73
18	61	59	60	72	70	71	77	74	76	73	71	72
19	62	60	61	73	71	72	85	75	78	72	71	72
20	63	61	62	72	71	71	84	78	80	75	72	73
21	63	60	62	72	71	72	81	74	77	76	73	75
22	104	60	66	72	71	71	100	80	89	77	75	76
23	116	75	87	73	72	72	80	72	76	76	74	75
24	77	75	76	73	72	73	71	69	70	75	73	74
25	75	70	72	73	71	73	70	67	68	76	72	74
26	73	72	72	73	71	72	68	67	68	74	72	73
27	74	70	72	73	71	72	68	64	67	75	73	74
28	71	69	70	75	71	73	74	67	69	75	74	75
29	77	70	74	118	77	102	81	72	77	75	74	75
30	73	69	71	94	88	91	72	68	70	76	74	75
31	71	68	70	---	---	---	69	68	68	75	74	74
MONTH	116	55	63	118	67	74	106	64	78	78	67	73

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	75	73	74	72	70	71	87	81	84	84	81	83
2	74	73	73	72	71	71	82	79	80	110	83	91
3	74	72	73	72	71	71	79	77	78	119	81	101
4	75	72	73	75	71	72	79	77	78	79	75	76
5	74	72	73	83	74	79	80	77	79	76	74	75
6	74	72	73	95	72	81	82	78	80	76	74	75
7	74	72	73	73	71	72	81	79	80	87	76	80
8	75	73	74	74	72	73	81	79	80	78	76	77
9	75	73	74	73	72	72	81	79	80	78	77	78
10	75	73	74	73	71	72	82	79	81	79	78	78
11	76	73	74	72	71	72	83	81	82	78	77	78
12	169	75	101	83	72	76	83	80	82	79	78	78
13	127	85	100	76	72	74	83	80	82	80	78	79
14	84	77	80	73	72	73	86	84	85	80	78	79
15	77	74	75	72	70	71	87	85	86	81	79	80
16	75	74	75	72	71	71	89	85	86	83	80	82
17	75	73	74	72	70	71	89	85	87	82	79	81
18	75	73	74	72	70	71	90	86	88	104	77	91
19	77	73	75	72	71	71	90	87	89	82	79	81
20	77	74	76	73	71	72	90	86	89	79	78	79
21	76	74	75	73	71	72	90	86	88	87	78	80
22	83	75	78	73	71	72	89	87	88	81	77	78
23	90	83	86	74	72	73	90	86	88	77	76	77
24	85	75	80	73	71	72	90	84	87	78	76	77
25	75	69	72	77	72	74	86	83	85	79	77	78
26	70	68	69	77	76	77	86	82	84	79	77	78
27	70	68	69	78	77	78	85	81	83	80	77	78
28	71	69	70	79	77	78	86	82	84	96	74	80
29	---	---	---	80	77	79	85	81	83	84	75	77
30	---	---	---	80	78	79	86	83	84	76	75	76
31	---	---	---	83	77	80	---	---	---	76	74	75
MONTH	169	68	76	95	70	74	90	77	84	119	74	80

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	104	74	81	70	69	70	71	62	66	63	61	62
2	76	73	75	71	69	70	64	62	63	63	61	62
3	74	72	73	71	70	71	64	62	63	63	61	62
4	74	72	73	71	69	70	64	62	64	63	61	62
5	93	74	80	71	70	71	64	63	64	63	60	62
6	77	73	74	---	---	---	65	63	64	63	60	62
7	74	73	74	---	---	---	65	63	64	63	60	62
8	76	73	74	---	---	---	76	63	66	63	61	63
9	74	73	74	---	---	---	64	62	63	64	62	63
10	74	72	73	---	---	---	65	63	64	71	62	64
11	74	72	73	---	---	---	65	63	64	71	61	63
12	74	72	73	71	68	69	65	62	64	62	59	61
13	74	72	73	117	67	77	65	62	64	61	59	60
14	74	72	73	94	66	71	65	63	64	61	59	60
15	74	71	73	87	73	75	66	61	63	61	59	60
16	102	69	81	80	69	73	64	62	63	60	59	60
17	140	67	73	69	67	68	64	61	62	60	59	59
18	74	67	69	69	68	69	64	62	63	60	58	60
19	69	66	68	70	67	69	65	64	64	60	59	60
20	67	65	67	70	67	69	65	63	64	61	59	60
21	66	65	66	70	67	69	65	63	64	61	59	60
22	67	65	66	115	67	79	65	62	64	61	59	60
23	67	66	67	69	64	66	64	62	63	60	59	60
24	91	67	71	67	65	66	64	61	63	63	60	61
25	72	67	69	68	67	67	71	63	66	61	59	60
26	69	67	68	83	68	74	84	62	67	60	59	60
27	69	67	68	81	64	70	64	61	62	95	59	77
28	70	68	69	64	63	64	63	61	62	58	55	57
29	86	69	72	65	63	64	63	61	62	55	54	55
30	79	69	73	65	63	64	72	61	64	54	53	54
31	---	---	---	74	64	66	69	61	63	---	---	---
MONTH	140	65	72	117	63	70	84	61	64	95	53	61

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.5	12.5	13.0	13.5	12.5	13.0	6.0	4.5	5.0	4.5	4.0	4.0
2	12.5	11.0	12.0	13.5	10.5	13.0	4.5	3.5	4.0	4.5	3.5	4.5
3	12.5	10.0	11.0	10.0	7.5	8.5	5.0	3.5	4.0	3.5	2.5	3.0
4	13.0	11.5	12.0	11.0	8.0	9.5	4.0	2.5	3.0	2.5	1.5	2.0
5	12.5	10.5	11.5	13.5	10.5	12.0	3.0	1.5	2.5	2.5	1.0	1.5
6	11.0	9.0	10.0	12.0	9.5	11.0	3.5	1.0	2.5	2.5	1.0	1.5
7	12.0	8.5	10.0	9.0	7.0	7.5	2.0	.0	1.0	2.5	1.5	2.0
8	13.0	11.0	11.5	7.5	5.0	6.5	2.0	.0	1.0	2.0	.0	1.0
9	14.5	12.5	13.5	9.0	6.0	7.5	2.5	.5	1.5	.5	.0	.0
10	14.5	13.0	13.5	10.5	9.0	10.0	3.5	2.0	3.0	.5	.0	.5
11	15.0	13.5	14.0	10.5	9.0	10.0	4.5	3.0	3.5	.5	.5	.5
12	15.0	12.5	13.5	10.5	7.5	9.0	4.0	2.5	3.5	.5	.0	.5
13	15.0	13.0	14.0	7.0	5.5	6.0	5.5	3.5	4.5	1.0	.5	.5
14	14.0	12.5	13.0	5.5	3.5	4.5	5.0	3.5	4.5	.5	.0	.5
15	13.5	11.5	12.5	7.0	4.0	5.0	4.5	3.5	4.0	.5	.0	.5
16	13.5	11.0	12.5	7.0	6.0	6.5	5.0	4.0	4.5	.0	.0	.0
17	13.5	11.5	12.5	6.0	4.5	5.0	6.5	4.5	5.5	.0	.0	.0
18	15.5	13.5	14.5	5.5	3.5	4.5	6.5	4.5	5.5	.5	.0	.5
19	15.5	13.5	14.5	5.5	3.5	5.0	4.5	3.5	4.0	1.0	.0	.5
20	16.5	15.0	15.5	3.5	1.5	2.0	4.0	3.0	3.5	.0	.0	.0
21	16.0	14.0	15.0	2.0	1.0	1.5	3.0	2.5	2.5	.0	.0	.0
22	16.5	15.0	15.5	2.0	1.0	1.5	5.5	3.0	4.5	.5	.0	.0
23	15.0	14.0	14.5	2.5	.5	1.5	3.5	2.5	3.0	.0	.0	.0
24	13.5	13.0	13.5	3.5	1.5	2.5	4.0	2.0	3.0	.5	.0	.0
25	13.5	11.5	12.5	4.0	2.0	3.0	4.0	1.5	3.0	.5	.0	.5
26	14.5	13.0	13.5	4.5	2.0	3.5	2.5	1.0	2.0	.5	.0	.5
27	15.0	14.0	14.5	5.0	2.5	4.0	2.0	.0	1.0	.5	.0	.0
28	16.5	14.5	15.5	8.0	4.0	5.5	2.5	1.0	2.0	.5	.0	.5
29	16.5	15.0	16.0	8.5	5.0	7.0	5.0	3.0	4.0	.5	.5	.5
30	15.0	12.5	13.5	5.5	4.0	4.5	5.0	3.5	4.5	.5	.0	.5
31	15.0	13.5	14.0	---	---	---	4.0	2.5	3.5	.5	.0	.5
MONTH	16.5	8.5	13.5	13.5	.5	6.5	6.5	.0	3.5	4.5	.0	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.5	.5	4.0	1.5	3.0	9.0	6.5	7.0	18.0	13.5	15.5
2	.5	.5	.5	5.5	2.5	3.5	7.5	5.5	6.0	15.0	11.0	13.0
3	.5	.0	.5	5.0	2.5	3.5	6.0	5.0	5.5	11.5	10.0	10.5
4	.5	.0	.5	3.0	1.5	2.0	9.5	4.5	7.0	14.0	9.5	11.5
5	.5	.0	.5	5.5	2.5	3.5	13.5	7.0	9.5	14.5	12.0	13.0
6	.5	.0	.5	4.0	1.5	2.5	12.5	8.0	10.0	15.5	13.5	14.5
7	.5	.0	.5	4.0	1.0	2.5	11.0	7.0	9.0	15.5	13.5	14.5
8	.5	.0	.0	4.5	3.0	3.5	9.5	6.5	8.0	15.5	13.0	14.0
9	.5	.0	.5	6.0	3.0	4.0	10.0	5.5	7.0	16.0	12.0	14.0
10	.5	.0	.5	6.5	3.0	4.5	10.0	4.0	6.5	18.0	13.5	15.0
11	1.0	.5	.5	6.0	3.5	5.0	8.0	5.5	7.0	18.5	15.0	16.5
12	1.0	.5	.5	6.5	5.0	5.5	12.0	5.5	8.5	19.5	16.5	17.5
13	1.5	.5	1.0	8.0	4.5	5.5	12.0	8.0	9.5	20.5	17.0	18.5
14	1.5	.5	1.0	7.0	5.0	6.0	9.5	8.0	8.5	20.5	17.0	18.5
15	2.0	1.0	1.0	6.5	4.0	5.0	10.0	8.5	9.5	18.5	16.0	17.0
16	2.0	.5	1.0	7.0	3.5	5.0	14.0	9.5	11.5	17.0	15.5	16.5
17	2.5	1.0	1.5	7.5	4.0	5.5	13.0	7.5	10.0	18.5	16.5	17.0
18	3.0	1.0	2.0	6.5	3.0	4.0	14.5	7.5	10.5	17.0	15.0	16.0
19	3.5	1.5	2.0	6.5	2.0	3.5	15.0	10.5	13.0	17.0	14.5	15.5
20	3.5	1.5	2.0	7.0	3.5	5.0	14.5	12.0	13.0	19.0	14.5	16.5
21	3.5	1.5	2.0	6.5	2.5	4.0	19.0	11.0	14.5	19.0	16.5	17.5
22	4.5	2.5	3.0	6.5	2.5	4.0	19.5	13.0	16.0	19.0	16.0	17.5
23	5.0	3.0	3.5	6.0	4.0	5.0	17.5	14.0	15.5	17.5	16.0	17.0
24	6.0	3.0	4.0	6.0	4.5	5.0	13.5	11.5	12.5	19.5	15.5	17.5
25	5.5	3.5	4.0	7.5	3.0	5.0	14.0	11.5	13.0	20.5	16.5	18.0
26	4.0	3.5	3.5	8.0	2.5	5.0	18.5	12.0	15.0	21.0	16.5	18.5
27	5.0	2.0	3.5	10.0	3.5	6.5	18.0	12.5	14.5	22.0	18.0	19.5
28	4.0	1.5	2.5	10.5	6.5	8.5	14.0	11.5	13.0	19.5	17.5	19.0
29	---	---	---	13.5	8.5	10.5	17.5	10.5	13.5	19.5	16.5	18.0
30	---	---	---	11.0	8.5	9.5	19.0	11.5	15.0	19.5	16.0	17.5
31	---	---	---	8.5	6.5	7.5	---	---	---	18.5	17.0	18.0
MONTH	6.0	.0	1.5	13.5	1.0	5.0	19.5	4.0	10.5	22.0	9.5	16.0

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.0	17.0	18.5	20.5	17.5	19.0	22.5	20.5	21.5	19.5	17.5	18.5
2	21.0	17.0	19.0	21.0	18.0	19.5	22.5	20.0	21.0	20.5	18.0	19.0
3	21.5	18.5	20.0	21.5	19.0	20.0	22.5	19.0	20.5	21.5	18.0	19.5
4	21.0	18.5	20.0	22.5	18.5	20.0	22.5	20.0	21.0	23.0	20.0	21.0
5	19.5	17.0	18.0	22.0	19.0	20.5	22.0	19.5	20.5	23.5	21.0	22.0
6	19.5	16.5	18.0	---	---	---	22.0	19.5	20.5	24.0	21.5	22.5
7	19.0	16.5	18.0	---	---	---	22.5	20.0	21.0	24.0	21.5	22.5
8	18.5	17.5	17.5	---	---	---	22.5	20.5	21.5	24.0	22.5	23.0
9	19.0	17.0	18.0	---	---	---	24.0	20.5	22.0	22.5	22.0	22.0
10	21.0	18.0	19.0	---	---	---	24.0	21.0	22.5	22.5	21.5	22.0
11	20.0	17.5	18.5	---	---	---	23.5	21.5	22.5	21.5	17.5	19.5
12	21.0	18.0	19.0	22.0	19.0	20.5	23.5	20.5	21.5	18.0	15.5	17.0
13	18.0	16.0	17.0	22.0	19.0	20.5	23.5	19.5	21.5	16.5	15.0	15.5
14	17.5	15.0	16.0	23.0	20.0	21.5	24.5	21.5	23.0	17.0	14.5	15.5
15	19.5	14.5	16.5	22.5	21.0	21.5	25.5	22.5	23.5	17.5	14.0	15.5
16	17.5	15.5	16.5	23.0	21.0	22.0	23.0	21.0	22.5	17.5	14.5	16.0
17	19.0	16.5	17.5	23.5	20.0	21.5	23.5	20.0	21.5	18.0	14.5	16.0
18	19.5	18.0	19.0	23.5	20.0	21.5	21.5	19.5	20.5	18.5	15.0	16.5
19	20.0	18.5	19.0	24.0	20.0	22.0	21.5	20.5	21.0	19.5	16.5	17.5
20	20.5	18.5	19.0	24.5	21.0	22.5	21.5	20.5	21.0	20.0	16.5	18.5
21	20.5	18.0	19.0	24.5	21.0	22.5	21.0	19.5	20.0	20.0	17.5	18.5
22	20.5	18.0	19.0	22.5	21.0	22.0	20.5	19.0	20.0	19.5	18.0	18.5
23	21.5	19.0	20.0	22.5	19.5	20.5	21.0	18.0	19.5	18.5	18.0	18.5
24	21.0	19.0	20.0	23.0	18.5	20.5	21.0	17.5	19.0	20.0	18.5	19.0
25	20.5	18.0	19.0	23.0	19.5	21.0	20.0	19.5	19.5	18.0	16.0	17.0
26	19.0	17.5	18.0	21.5	20.5	21.0	21.0	19.5	20.0	17.5	16.0	16.5
27	18.0	17.0	17.5	23.0	20.5	21.5	21.5	20.0	20.5	17.5	16.0	17.0
28	17.0	16.0	16.5	23.5	20.5	22.0	22.0	19.0	20.0	17.0	15.5	16.5
29	18.5	16.5	17.5	23.0	21.0	22.0	21.5	19.5	20.5	17.5	16.0	16.5
30	19.5	17.0	18.0	24.0	21.0	22.5	21.0	19.5	20.0	17.5	16.0	16.5
31	---	---	---	22.0	21.5	22.0	20.0	18.5	19.5	---	---	---
MONTH	21.5	14.5	18.5	24.5	17.5	21.0	25.5	17.5	21.0	24.0	14.0	18.5

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.2	7.1	7.2	7.3	7.2	7.2	7.1	7.0	7.0	7.0	7.0	7.0
2	7.3	7.1	7.2	7.3	7.2	7.2	7.1	7.0	7.1	7.0	7.0	7.0
3	7.2	7.1	7.2	7.3	7.2	7.3	7.2	7.0	7.1	7.0	7.0	7.0
4	7.2	7.1	7.1	7.4	7.2	7.3	7.1	7.0	7.1	7.0	7.0	7.0
5	7.2	7.1	7.1	7.4	7.2	7.3	7.1	7.0	7.0	7.0	7.0	7.0
6	7.2	7.1	7.1	7.4	7.2	7.3	7.1	7.0	7.1	7.0	7.0	7.0
7	7.2	7.1	7.1	7.4	7.2	7.3	7.1	7.0	7.0	7.0	6.9	7.0
8	7.2	7.1	7.1	7.4	7.2	7.3	7.0	7.0	7.0	7.0	6.9	7.0
9	7.2	7.1	7.1	7.3	7.2	7.2	7.0	6.9	7.0	6.9	6.8	6.9
10	7.2	7.0	7.1	7.3	7.2	7.2	7.0	7.0	7.0	6.9	6.8	6.9
11	7.2	7.1	7.1	7.2	7.1	7.2	7.0	6.9	7.0	6.9	6.9	6.9
12	7.2	7.1	7.1	7.3	7.1	7.2	7.0	6.9	7.0	6.9	6.9	6.9
13	7.2	7.1	7.1	7.3	7.2	7.2	7.0	6.9	6.9	6.9	6.9	6.9
14	7.2	7.1	7.1	7.2	7.1	7.2	7.0	6.9	7.0	6.9	6.8	6.8
15	7.2	7.1	7.1	7.2	7.1	7.1	7.0	6.9	7.0	6.8	6.7	6.8
16	7.2	7.1	7.1	7.2	7.1	7.1	7.0	6.9	7.0	6.8	6.6	6.7
17	7.2	7.1	7.1	7.2	7.1	7.2	7.0	6.9	6.9	6.8	6.8	6.8
18	7.2	7.1	7.1	7.2	7.1	7.2	7.0	6.9	7.0	6.8	6.7	6.8
19	7.1	7.1	7.1	7.2	7.1	7.2	7.0	6.9	7.0	6.8	6.7	6.8
20	7.1	7.0	7.1	7.2	7.2	7.2	7.1	7.0	7.0	6.8	6.7	6.8
21	7.2	7.0	7.1	7.2	7.1	7.2	7.1	7.0	7.0	6.8	6.6	6.7
22	7.2	7.0	7.1	7.2	7.1	7.2	7.0	6.9	7.0	6.7	6.6	6.7
23	7.3	7.2	7.2	7.2	7.1	7.1	7.0	6.9	7.0	6.7	6.6	6.7
24	7.3	7.1	7.2	7.2	7.1	7.1	7.0	6.9	7.0	6.7	6.6	6.7
25	7.3	7.2	7.2	7.2	7.1	7.1	7.0	6.9	7.0	6.7	6.6	6.7
26	7.2	7.1	7.1	7.2	7.1	7.1	7.0	7.0	7.0	6.7	6.6	6.7
27	7.3	7.1	7.2	7.2	7.1	7.1	7.0	7.0	7.0	6.7	6.6	6.7
28	7.3	7.2	7.2	7.1	7.0	7.1	7.0	6.9	6.9	6.7	6.6	6.7
29	7.3	7.1	7.2	7.2	7.0	7.1	7.0	7.0	7.0	6.7	6.6	6.7
30	7.4	7.2	7.2	7.1	7.0	7.0	7.0	7.0	7.0	6.7	6.6	6.7
31	7.4	7.2	7.3	---	---	---	7.0	7.0	7.0	6.7	6.7	6.7
MONTH	7.4	7.0	7.1	7.4	7.0	7.2	7.2	6.9	7.0	7.0	6.6	6.8

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.7	6.7	6.7	6.9	6.8	6.9	7.0	6.9	7.0	7.3	7.0	7.2
2	6.8	6.7	6.7	6.9	6.9	6.9	7.0	6.9	6.9	7.1	7.0	7.1
3	6.8	6.7	6.8	6.9	6.9	6.9	7.0	6.9	6.9	7.1	7.0	7.1
4	6.8	6.7	6.7	6.9	6.9	6.9	7.0	6.9	6.9	7.1	7.0	7.0
5	6.7	6.7	6.7	6.9	6.8	6.9	7.0	6.9	6.9	7.0	6.9	7.0
6	6.7	6.7	6.7	6.9	6.9	6.9	7.0	6.9	6.9	6.9	6.8	6.9
7	6.7	6.7	6.7	6.9	6.9	6.9	7.0	6.9	7.0	6.9	6.8	6.9
8	6.7	6.6	6.7	6.9	6.9	6.9	7.1	7.0	7.0	6.9	6.9	6.9
9	6.7	6.6	6.7	6.9	6.9	6.9	7.1	7.0	7.0	7.0	6.8	6.9
10	6.7	6.7	6.7	6.9	6.9	6.9	7.1	7.0	7.0	7.0	6.9	6.9
11	6.7	6.7	6.7	6.9	6.9	6.9	7.0	6.9	7.0	7.0	6.8	6.9
12	6.8	6.7	6.8	6.9	6.8	6.9	7.0	6.9	7.0	6.9	6.7	6.8
13	6.8	6.7	6.8	6.9	6.8	6.9	7.1	6.9	7.0	6.7	6.5	6.6
14	6.8	6.7	6.8	6.9	6.9	6.9	7.0	6.9	7.0	6.8	6.5	6.7
15	6.8	6.7	6.8	6.9	6.9	6.9	7.0	6.9	7.0	6.8	6.7	6.8
16	6.8	6.7	6.8	6.9	6.8	6.9	7.1	6.9	7.0	6.8	6.5	6.6
17	6.8	6.8	6.8	6.9	6.8	6.9	7.1	6.9	7.0	6.7	6.5	6.6
18	6.8	6.8	6.8	6.9	6.8	6.9	7.2	7.0	7.1	6.8	6.5	6.7
19	6.8	6.8	6.8	7.0	6.8	6.9	7.2	7.0	7.1	6.8	6.6	6.7
20	6.8	6.8	6.8	6.9	6.9	6.9	7.2	7.0	7.1	6.8	6.6	6.7
21	6.8	6.8	6.8	6.9	6.8	6.9	7.3	7.0	7.1	6.7	6.6	6.6
22	6.9	6.8	6.9	6.9	6.8	6.9	7.3	7.0	7.1	6.7	6.6	6.6
23	6.9	6.8	6.8	6.9	6.9	6.9	7.2	7.0	7.1	6.6	6.5	6.6
24	6.8	6.8	6.8	6.9	6.9	6.9	7.2	7.1	7.1	6.7	6.5	6.6
25	6.8	6.8	6.8	6.9	6.9	6.9	7.2	7.1	7.1	6.7	6.5	6.6
26	6.8	6.8	6.8	7.0	6.9	6.9	7.2	7.1	7.1	6.6	6.5	6.5
27	6.9	6.8	6.8	6.9	6.9	6.9	7.2	7.0	7.1	6.8	6.5	6.6
28	6.9	6.8	6.9	6.9	6.9	6.9	7.2	7.0	7.1	7.1	6.8	6.9
29	---	---	---	7.0	6.8	6.9	7.3	7.0	7.2	7.1	6.8	7.0
30	---	---	---	7.0	6.9	6.9	7.3	7.1	7.2	7.1	6.9	7.0
31	---	---	---	7.0	6.9	6.9	---	---	---	7.0	6.9	6.9
MONTH	6.9	6.6	6.8	7.0	6.8	6.9	7.3	6.9	7.0	7.3	6.5	6.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.2	6.9	7.1	6.8	6.7	6.8	6.9	6.8	6.8	---	---	---
2	7.1	7.0	7.0	6.8	6.7	6.7	6.9	6.8	6.8	---	---	---
3	7.1	7.0	7.0	6.7	6.6	6.7	6.9	6.8	6.8	---	---	---
4	7.1	7.0	7.0	6.8	6.6	6.7	6.9	6.8	6.8	---	---	---
5	7.1	7.0	7.0	6.7	6.6	6.7	6.9	6.8	6.8	---	---	---
6	7.1	7.0	7.1	---	---	---	6.9	6.8	6.8	---	---	---
7	7.2	6.9	7.0	---	---	---	6.9	6.8	6.8	---	---	---
8	7.1	7.0	7.0	---	---	---	6.9	6.8	6.8	---	---	---
9	7.0	6.9	7.0	---	---	---	6.9	6.8	6.8	---	---	---
10	7.0	6.9	6.9	---	---	---	6.9	6.8	6.8	---	---	---
11	7.0	6.8	6.9	---	---	---	6.9	6.8	6.8	---	---	---
12	6.8	6.7	6.8	6.8	6.6	6.7	6.9	6.8	6.8	---	---	---
13	6.9	6.8	6.9	6.8	6.6	6.7	7.0	6.8	6.9	7.0	6.9	6.9
14	7.0	6.8	6.9	6.8	6.7	6.7	7.0	6.8	6.9	7.0	6.9	6.9
15	7.0	6.8	6.9	6.8	6.7	6.8	7.0	6.7	6.8	7.0	6.9	6.9
16	7.0	6.8	6.9	6.9	6.8	6.8	6.8	6.7	6.8	7.0	6.9	6.9
17	6.9	6.8	6.9	6.8	6.6	6.7	6.8	6.6	6.7	7.0	6.8	6.9
18	7.0	6.8	6.9	6.8	6.7	6.7	6.8	6.7	6.7	7.0	6.8	6.9
19	7.0	6.9	6.9	6.8	6.7	6.7	6.9	6.8	6.8	7.0	6.8	6.9
20	7.0	6.9	6.9	6.9	6.7	6.8	7.0	6.8	6.9	7.0	6.8	6.9
21	7.0	6.9	6.9	7.0	6.7	6.8	7.0	6.7	6.9	7.0	6.8	6.9
22	7.0	6.9	6.9	6.9	6.7	6.9	---	---	---	7.0	6.8	6.9
23	6.9	6.9	6.9	7.0	6.8	6.9	---	---	---	7.0	6.8	6.9
24	7.0	6.8	6.9	7.0	6.8	6.9	---	---	---	7.0	6.8	6.9
25	6.9	6.8	6.9	7.0	6.9	6.9	---	---	---	7.0	6.8	6.9
26	6.9	6.8	6.9	7.0	6.9	7.0	---	---	---	7.0	6.8	6.9
27	6.9	6.8	6.8	7.0	6.9	7.0	---	---	---	7.0	6.5	6.8
28	6.8	6.8	6.8	6.9	6.9	6.9	---	---	---	6.7	6.5	6.6
29	6.8	6.7	6.8	6.9	6.8	6.9	---	---	---	6.8	6.7	6.7
30	6.8	6.7	6.8	6.9	6.8	6.8	---	---	---	6.8	6.7	6.7
31	---	---	---	6.8	6.8	6.8	---	---	---	---	---	---
MONTH	7.2	6.7	6.9	7.0	6.6	6.8	7.0	6.6	6.8	7.0	6.5	6.9

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	9.3	8.4	8.8	12.1	11.5	11.8			
2	---	---	---	9.2	8.3	8.7	12.6	11.7	12.2			
3	---	---	---	10.5	9.2	9.8	12.1	11.7	12.0			
4	---	---	---	10.1	9.0	9.7	12.9	12.1	12.6			
5	---	---	---	9.4	8.8	9.1	13.2	12.7	12.9			
6	---	---	---	9.9	8.9	9.5	13.1	12.4	12.7			
7	---	---	---	11.0	9.7	10.4	13.6	12.7	13.3			
8	---	---	---	11.5	10.4	10.9	13.7	13.1	13.4			
9	---	---	---	11.2	9.9	10.6	13.7	13.0	13.4			
10	---	---	---	10.6	9.6	10.0	13.1	12.7	13.0			
11	---	---	---	10.3	9.5	9.8	13.3	12.8	13.0			
12	---	---	---	10.9	9.5	10.1	---	---	---			
13	---	---	---	11.2	10.2	10.7	---	---	---			
14	---	---	---	11.6	10.6	11.1	---	---	---			
15	---	---	---	11.6	10.2	11.0	---	---	---			
16	---	---	---	11.9	10.0	11.1	---	---	---			
17	---	---	---	13.9	12.0	13.3	---	---	---			
18	---	---	---	---	---	---	---	---	---			
19	---	---	---	---	---	---	---	---	---			
20	---	---	---	---	---	---	---	---	---			
21	---	---	---	---	---	---	---	---	---			
22	---	---	---	---	---	---	---	---	---			
23	---	---	---	---	---	---	---	---	---			
24	---	---	---	---	---	---	---	---	---			
25	---	---	---	---	---	---	---	---	---			
26	---	---	---	---	---	---	---	---	---			
27	9.0	8.4	8.6	---	---	---	---	---	---			
28	8.8	8.0	8.4	---	---	---	---	---	---			
29	8.5	8.0	8.2	11.7	10.6	11.2	13.1	12.1	12.6			
30	9.3	8.2	8.7	12.3	11.6	11.9	---	---	---			
31	9.1	8.4	8.7	---	---	---	---	---	---			
MONTH	9.3	8.0	8.5	13.9	8.3	10.4	13.7	11.5	12.7			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	13.0	12.3	12.6	11.1	10.4	10.8	---	---	---
2	---	---	---	12.6	11.8	12.3	11.2	10.7	10.9	---	---	---
3	---	---	---	12.8	12.1	12.5	11.3	10.9	11.0	---	---	---
4	---	---	---	13.1	12.6	12.9	11.4	10.4	10.9	---	---	---
5	---	---	---	12.6	11.9	12.4	10.9	9.6	10.3	---	---	---
6	---	---	---	13.2	12.5	12.9	10.3	9.8	10.0	---	---	---
7	---	---	---	13.4	12.6	13.0	11.0	10.1	10.5	---	---	---
8	---	---	---	12.7	12.1	12.4	11.0	10.3	10.6	---	---	---
9	---	---	---	12.7	11.9	12.4	11.3	10.4	10.9	---	---	---
10	---	---	---	12.7	11.8	12.3	11.8	10.4	11.1	9.0	8.3	8.7
11	---	---	---	12.5	11.9	12.2	11.2	10.5	10.9	8.7	8.2	8.5
12	---	---	---	11.9	11.5	11.7	11.4	9.8	10.6	8.5	8.1	8.3
13	---	---	---	12.1	11.4	11.8	---	---	---	8.3	7.8	8.1
14	---	---	---	12.0	11.6	11.8	---	---	---	8.3	7.7	8.0
15	---	---	---	12.3	11.8	12.1	---	---	---	8.5	8.0	8.2
16	---	---	---	12.7	11.7	12.2	---	---	---	8.4	7.7	8.0
17	---	---	---	12.2	11.5	12.0	---	---	---	8.1	7.6	7.8
18	---	---	---	12.6	11.9	12.3	---	---	---	8.6	7.8	8.3
19	---	---	---	13.1	12.0	12.6	---	---	---	8.8	8.3	8.5
20	---	---	---	12.3	11.4	12.0	---	---	---	8.7	8.0	8.4
21	---	---	---	12.8	11.7	12.3	---	---	---	8.4	8.0	8.2
22	12.9	12.3	12.6	12.8	11.6	12.2	---	---	---	8.6	8.0	8.3
23	12.6	12.1	12.4	12.1	11.6	11.8	---	---	---	8.5	8.2	8.3
24	12.5	11.7	12.2	11.8	11.5	11.6	---	---	---	8.5	7.9	8.2
25	12.4	12.0	12.2	12.3	11.2	11.8	---	---	---	8.3	7.6	7.9
26	12.5	12.3	12.4	12.4	11.0	11.8	---	---	---	8.2	7.5	7.8
27	12.8	12.0	12.3	12.0	10.4	11.2	---	---	---	8.0	7.4	7.7
28	13.2	12.4	12.8	11.0	10.0	10.5	---	---	---	8.1	7.5	7.8
29	---	---	---	10.5	9.6	10.0	---	---	---	8.5	8.0	8.2
30	---	---	---	10.6	10.0	10.2	---	---	---	8.5	7.9	8.2
31	---	---	---	10.9	10.4	10.7	---	---	---	8.2	7.8	8.0
MONTH	13.2	11.7	12.4	13.4	9.6	12.0	11.8	9.6	10.7	9.0	7.4	8.2

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

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 Whittmore Avenue at Picatinny Arsenal, and 200 ft downstream from dam on Picatinny Lake.

DRAINAGE AREA.--9.16 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 690 ft, from topographic map.

REMARKS.--Estimated daily discharges Oct. 1-3. Records fair. Regulation by and diversions from Picatinny Lake. Some 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 NGVD 200 ft vs of bridge on Whittmore Avenue.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 95 ft³/s, Sept. 27, gage height, 3.14 ft; minimum daily, 0.20 ft³/s, Nov. 20, 21, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.40	.25	14	4.3	17	6.1	.68	13	8.9	16	3.3
2	1.4	.41	.26	15	5.0	15	5.2	2.1	10	7.6	13	3.2
3	1.3	.37	.26	15	4.6	14	5.0	22	8.9	7.1	9.9	3.4
4	1.2	.36	.26	14	4.1	15	4.7	23	7.3	6.1	7.6	3.4
5	1.0	.39	.30	13	4.2	17	4.6	21	10	5.1	6.5	3.4
6	.61	.38	.70	12	5.3	16	4.4	20	12	4.6	5.5	3.5
7	.78	.34	2.1	11	4.8	14	4.0	24	8.9	4.5	5.1	3.8
8	.84	.28	3.2	9.9	4.7	15	4.0	18	8.5	4.0	6.5	3.8
9	.87	.28	3.5	7.7	4.2	14	3.7	14	8.3	3.7	6.3	3.7
10	.89	.32	3.6	6.0	4.1	14	2.8	11	7.3	3.3	5.3	3.5
11	1.2	.32	3.7	5.7	4.2	12	2.3	9.4	5.9	2.9	4.9	2.5
12	.65	.33	3.8	5.3	9.6	15	2.2	8.1	5.0	2.5	4.3	1.6
13	.45	.33	3.8	4.8	11	15	2.1	6.8	4.0	4.5	3.8	1.3
14	.43	.28	4.1	4.8	11	14	2.0	5.8	3.2	4.5	3.8	.98
15	.49	.24	3.8	6.1	11	13	1.9	4.1	2.9	5.6	3.8	1.2
16	.45	.21	3.6	5.6	11	12	2.1	3.1	23	7.3	3.8	1.2
17	.47	.21	3.6	6.0	11	11	1.8	3.1	30	6.2	3.6	1.2
18	.54	.21	3.1	6.0	10	10	1.6	12	30	4.5	3.3	1.2
19	.63	.21	3.4	6.0	10	8.5	1.7	9.8	26	3.4	3.1	1.2
20	.58	.20	3.8	5.7	10	8.1	2.0	7.3	22	3.0	3.1	1.4
21	.63	.20	4.7	4.5	10	7.1	1.5	7.3	19	2.7	3.1	1.6
22	.61	.20	9.6	3.9	10	6.6	1.2	9.2	16	5.3	3.0	1.7
23	.48	.20	8.9	3.7	13	7.5	1.2	7.4	13	5.8	2.8	1.8
24	.50	.21	8.5	3.7	17	7.1	1.0	6.4	14	4.4	2.8	1.8
25	.61	.22	9.2	4.0	20	6.0	1.0	5.5	15	3.8	2.8	1.8
26	.62	.22	8.7	4.2	23	3.9	1.0	4.2	11	9.9	2.8	1.8
27	.57	.22	11	4.0	22	3.6	1.0	3.9	8.6	22	3.0	50
28	.59	.23	11	3.9	19	3.6	.84	6.7	7.5	18	3.0	26
29	.60	.25	13	3.6	---	4.0	.85	10	7.8	15	3.1	31
30	.46	.24	14	3.5	---	4.0	.63	7.1	9.7	13	3.1	29
31	.47	---	14	3.8	---	4.8	---	5.9	---	13	3.1	---
TOTAL	22.12	8.26	163.73	216.4	278.1	327.8	74.42	298.88	367.8	212.2	151.8	195.28
MEAN	.71	.28	5.28	6.98	9.93	10.6	2.48	9.64	12.3	6.85	4.90	6.51
MAX	1.4	.41	14	15	23	17	6.1	24	30	22	16	50
MIN	.43	.20	.25	3.5	4.1	3.6	.63	.68	2.9	2.5	2.8	.98
CFSM	.08	.03	.58	.76	1.08	1.16	.27	1.05	1.34	.75	.53	.71
IN.	.09	.03	.66	.88	1.13	1.33	.30	1.21	1.49	.86	.62	.79

WTR YR 1985 TOTAL 2316.79 MEAN 6.35 MAX 50 MIN .20 CFSM .69 IN. 9.41

01379790 GREEN POND BROOK AT WHARTON, NJ

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

DRAINAGE AREA.--12.6 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 679.50 ft above National Geodetic Vertical Datum of 1929 (U.S. Army, Picatinny Arsenal, bench mark).

REMARKS.--No estimated daily discharges. Records good. Some regulation from Lake Picatinny. Several measurements of water temperature, other than those published, were made during the year. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 572 ft³/s, Apr. 5, 1984, gage height, 5.11 ft; minimum, 2.4 ft³/s, Sept. 29, 1983, gage height, 2.28 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1400	*186	*3.75	No other peak greater than base discharge.			

Minimum discharge, 2.8 ft³/s, Nov. 4, 17, 25, 27, gage height, 2.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	3.7	6.0	19	7.3	24	18	5.1	29	15	23	6.1
2	7.1	3.8	5.0	23	8.1	22	14	9.9	17	14	18	6.1
3	5.4	3.6	8.3	22	8.0	20	13	68	14	13	15	6.2
4	4.5	3.2	11	19	7.4	21	13	40	13	12	12	6.4
5	4.2	7.7	7.3	19	7.2	29	12	34	24	11	11	6.2
6	3.8	5.6	13	16	8.3	25	13	30	22	9.7	10	6.1
7	3.4	4.5	11	16	8.1	22	12	42	16	9.8	9.3	6.0
8	3.5	4.2	9.2	15	7.7	23	12	30	14	9.1	12	6.3
9	3.6	4.0	8.7	12	7.2	22	11	24	14	8.6	11	6.6
10	3.9	3.7	9.1	11	7.0	20	9.8	20	13	8.2	9.7	7.4
11	4.0	3.7	9.7	10	12	20	8.9	17	11	7.4	9.0	7.1
12	4.3	3.9	9.5	9.9	30	26	8.4	16	10	7.1	8.5	5.0
13	3.8	3.6	9.0	9.4	30	24	7.9	13	9.1	11	7.6	4.5
14	3.5	3.3	8.9	8.9	18	22	7.8	12	7.7	9.9	7.4	3.9
15	3.4	3.3	9.1	9.2	19	20	7.7	10	6.7	12	7.3	3.5
16	3.4	3.2	8.6	9.3	18	18	8.0	8.5	53	13	7.0	3.7
17	3.2	3.1	8.5	10	17	17	7.8	8.6	51	12	6.7	3.8
18	3.0	3.0	8.5	9.8	17	17	7.3	30	46	9.6	6.5	3.7
19	3.1	3.2	8.7	9.6	17	15	7.3	19	34	8.2	6.4	3.6
20	3.2	3.1	9.9	9.5	17	18	7.6	14	30	7.2	6.3	3.6
21	3.2	3.0	10	8.9	17	12	7.2	13	26	6.7	6.1	3.6
22	6.7	2.9	26	8.3	19	12	7.1	16	22	12	5.8	3.7
23	12	3.0	17	7.6	28	14	6.6	13	19	11	5.7	3.9
24	5.8	2.9	13	7.5	29	14	6.4	12	34	9.3	5.3	4.4
25	4.5	2.8	13	7.4	30	13	6.2	11	28	7.9	7.0	4.1
26	4.5	2.9	12	7.2	31	11	6.2	9.2	19	19	8.8	4.1
27	4.1	3.0	14	7.1	30	10	6.0	8.3	14	34	6.7	109
28	5.9	3.3	15	7.0	28	9.9	5.8	14	14	25	6.1	56
29	5.3	17	23	6.8	---	10	5.6	19	15	21	6.0	43
30	4.6	8.8	21	6.7	---	10	5.2	13	15	18	6.9	40
31	4.1	---	19	6.7	---	12	---	11	---	19	7.7	---
TOTAL	140.7	127.0	362.0	348.8	483.3	552.9	268.8	590.6	640.5	390.7	275.8	377.6
MEAN	4.54	4.23	11.7	11.3	17.3	17.8	8.96	19.1	21.3	12.6	8.90	12.6
MAX	12	17	26	23	31	29	18	68	53	34	23	109
MIN	3.0	2.8	5.0	6.7	7.0	9.9	5.2	5.1	6.7	6.7	5.3	3.5
CFSM	.36	.34	.93	.90	1.37	1.41	.71	1.52	1.69	1.00	.71	1.00
IN.	.42	.37	1.07	1.03	1.43	1.63	.79	1.74	1.89	1.15	.81	1.11

CAL YR 1984 TOTAL 12578.8 MEAN 34.4 MAX 512 MIN 2.8 CFSM 2.73 IN. 37.14
WTR YR 1985 TOTAL 4558.7 MEAN 12.5 MAX 109 MIN 2.8 CFSM .99 IN. 13.46

01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°54'06", long 74°24'40", Morris County, Hydrologic Unit 02030103, on right bank, under CONRAIL railroad bridge, just downstream of bridge on Morris Avenue in Boonton, 1.8 mi upstream from dam at Boonton Reservoir.

DRAINAGE AREA.--116 mi².

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 National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Estimated daily discharges: Jan. 21 to Feb. 17. Records good except those for period when intake was frozen, Jan. 21 to Feb. 17, which are fair. Flow regulated by Splitrock Reservoir on Beaver Brook, 14.5 mi above 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 0.90 ft³/s. Rockaway Valley trunk sewer bypasses the station (see station 01381000). Several measurements of water temperature were made during the year.

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

AVERAGE DISCHARGE.--48 years, 225 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,590 ft³/s, Apr. 5, 1984, gage height, 7.23 ft; minimum daily, 10 ft³/s, Aug. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	2315	*1,460	*4.63	No other peak greater than base discharge.			

Minimum discharge, 26 ft³/s, Sept. 22, 23, gage height, 1.80 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	72	114	168	71	178	163	55	283	110	136	65
2	101	73	94	223	71	167	130	81	204	92	109	53
3	75	71	127	239	74	153	121	607	134	86	84	48
4	61	67	178	187	67	142	118	572	129	84	70	45
5	54	175	122	177	69	231	111	299	213	71	61	41
6	46	132	224	156	65	228	112	233	287	76	56	36
7	41	91	223	147	60	177	107	284	165	107	51	34
8	41	77	149	144	51	175	96	257	131	78	103	33
9	41	70	129	102	50	171	97	187	129	66	83	49
10	40	68	123	110	58	159	91	163	116	61	65	63
11	42	70	128	109	65	157	88	146	95	56	56	72
12	42	77	121	103	82	233	85	132	88	51	51	56
13	40	68	111	105	456	249	86	119	82	85	46	50
14	39	61	95	99	300	196	85	102	70	85	42	47
15	37	55	92	104	226	174	84	88	64	132	40	46
16	36	56	91	81	165	157	87	80	346	97	40	44
17	36	54	99	96	134	149	90	85	543	88	39	42
18	35	50	92	98	142	143	80	286	373	73	39	41
19	34	51	91	97	134	133	75	226	276	63	39	39
20	34	50	111	86	137	131	77	143	193	54	38	34
21	33	48	99	71	130	135	73	131	158	50	36	29
22	70	47	290	101	138	111	70	189	132	145	36	27
23	429	47	218	84	226	122	66	132	114	103	34	28
24	146	47	156	82	301	128	63	110	171	83	32	40
25	101	47	143	84	274	117	63	95	285	60	48	36
26	90	47	125	82	232	107	63	84	142	185	119	32
27	84	47	126	86	218	99	61	79	107	337	72	739
28	78	47	138	72	199	95	57	121	101	202	55	1020
29	101	224	211	76	---	94	54	283	108	130	46	441
30	82	154	225	69	---	91	57	153	112	104	79	302
31	72	---	175	67	---	96	---	114	---	100	144	---
TOTAL	2216	2243	4420	3505	4195	4698	2610	5636	5351	3114	1949	3632
MEAN	71.5	74.8	143	113	150	152	87.0	182	178	100	62.9	121
MAX	429	224	290	239	456	249	163	607	543	337	144	1020
MIN	33	47	91	67	50	91	54	55	64	50	32	27

CAL YR 1984 TOTAL 115699 MEAN 316 MAX 3750 MIN 33
WTR YR 1985 TOTAL 43569 MEAN 119 MAX 1020 MIN 27

01381000 ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°53'47", long 74°23'36", Morris County, Hydrologic Unit 02030103, on right bank 2,000 ft downstream from Boonton Reservoir Dam at Boonton.

DRAINAGE AREA.--119 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929 (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 Dam 2,000 ft upstream at datum 305.25 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Estimated daily discharges: Sept. 26-30. Records fair. 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 above 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. National Weather Service gage-height telemeter at station.

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

AVERAGE DISCHARGE.--79 years (water years 1907-85), 138 ft³/s, adjusted for sewage effluent since October 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,560 ft³/s, Oct. 10, 1903; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 372 ft³/s, June 18, gage height, 3.26 ft; minimum, 7.1 ft³/s, Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	10	109	11	93	12	10	63	11	11	11
2	12	12	10	126	12	82	12	11	117	11	11	11
3	11	12	11	166	12	65	14	15	50	11	11	9.5
4	11	12	9.8	130	11	59	12	11	28	11	11	11
5	10	13	9.6	108	11	102	13	11	44	11	11	12
6	10	12	11	85	11	136	24	13	159	11	11	11
7	11	12	10	66	11	100	13	16	89	11	11	11
8	11	12	10	66	11	44	11	90	39	11	11	11
9	11	11	11	37	10	11	11	86	26	11	11	11
10	11	11	10	20	10	9.5	11	69	18	11	11	11
11	10	11	10	23	11	10	11	32	9.7	11	11	11
12	10	10	10	22	14	12	11	26	10	11	20	11
13	11	10	10	19	12	11	10	20	11	11	36	11
14	10	10	10	16	12	11	10	11	10	11	11	11
15	10	10	10	17	68	12	10	11	11	11	11	11
16	11	10	10	11	91	12	10	11	17	11	11	11
17	10	9.9	10	10	75	11	11	11	249	11	11	11
18	10	9.8	10	10	58	12	11	11	311	11	11	11
19	11	9.6	10	10	47	20	11	25	200	11	11	11
20	10	9.6	10	10	42	20	11	44	103	11	11	11
21	10	9.8	11	10	37	20	11	19	55	11	11	11
22	12	10	12	10	33	18	11	69	38	11	11	11
23	11	10	11	10	64	16	11	50	21	11	11	11
24	11	10	10	10	161	23	11	11	20	11	11	11
25	10	10	10	10	192	21	10	11	127	11	12	11
26	10	10	11	10	151	14	10	11	69	12	11	11
27	9.2	10	11	10	129	15	9.8	12	22	11	11	32
28	8.7	10	11	10	109	15	9.7	11	14	11	11	10
29	9.7	11	13	10	---	11	9.7	12	12	11	11	10
30	9.9	10	75	10	---	10	9.9	24	11	11	12	10
31	11	---	107	10	---	11	---	22	---	11	11	---
TOTAL	325.5	319.7	484.4	1171	1416	1006.5	342.1	786	1953.7	342	377	347.5
MEAN	10.5	10.7	15.6	37.8	50.6	32.5	11.4	25.4	65.1	11.0	12.2	11.6
MAX	12	13	107	166	192	136	24	90	311	12	36	32
MIN	8.7	9.6	9.6	10	10	9.5	9.7	10	9.7	11	11	9.5
(†)	10.5	9.9	10.7	10.5	10.7	11.0	10.2	10.5	10.4	10.4	9.6	10.1

CAL YR 1984 TOTAL 88069.1 MEAN 241 MAX 3850 MIN 2.9 † 12.9
WTR YR 1985 TOTAL 8871.4 MEAN 24.3 MAX 311 MIN 8.7 † 10.4

† Sewage effluent, in cubic feet per second, from plant of Rockaway Valley Regional Sewerage 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 mi².

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 09...	1150	30	481	7.6	15.5	4.5	45	5.3	<200	<200
JAN 30...	1300	20	452	7.6	2.0	12.0	86	1.2	2	<2
APR 08...	1300	23	430	7.6	10.5	8.2	74	5.5	49	2
JUN 12...	1200	27	445	7.5	19.5	1.1	12	5.3	220	1600
JUL 15...	1330	37	359	7.4	22.5	2.1	25	4.9	1100	1400
SEP 04...	1030	32	463	7.5	22.5	3.5	41	4.5	330	1300

DATE	HARD-NESS (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 09...	120	31	11	36	4.7	73	29	51	.20
JAN 30...	120	31	11	35	4.8	113	29	56	.20
APR 08...	120	28	11	31	5.0	73	29	51	.20
JUN 12...	110	27	10	35	3.8	113	24	51	.20
JUL 15...	95	24	8.4	25	4.1	92	25	38	.10
SEP 04...	110	29	10	35	4.3	67	23	55	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 09...	13	220	.325	1.9	5.85	6.0	7.9	1.25	4.8
JAN 30...	13	250	.112	1.1	E8.40	9.2	10	.820	5.4
APR 08...	12	210	.101	.94	6.00	6.3	7.2	.930	5.4
JUN 12...	12	230	.067	.19	7.50	7.8	8.0	1.05	8.4
JUL 15...	9.7	190	.044	.13	5.20	5.9	6.0	1.25	6.9
SEP 04...	12	210	.217	.42	7.40	8.0	8.4	1.10	6.0

01381200 ROCKAWAY RIVER AT PINE BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 09...	1150	<.5	1.4	5.2	<10	1	<1	<10	120	<1	<1
JUN 12...	1200	<.5	--	--	<10	<1	--	<10	30	1	--

DATE	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)	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)
OCT 09...	10	6	<10	1	8	540	4000	1	30	220	130
JUN 12...	<10	--	--	9	--	1100	--	4	--	270	--

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 09...	<.1	<.01	5	<10	<1	<1	30	40	13	8	<1.0
JUN 12...	.2	--	3	--	<1	--	40	--	<1	--	--

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 09...	<.1	5.0	2.0	2.0	1.0	<.1	.4	<.1	<.1	<.1	<.1
JUN 12...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 09...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN 12...	--	--	--	--	--	--	--	--	--	--	--

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ

LOCATION.--Lat 40°48'21", long 74°27'22", Morris County, Hydrologic Unit 02030103, on left bank at Morristown sewage-disposal plant, 0.8 mi downstream from Morristown, and 9.0 mi upstream from mouth.

DRAINAGE AREA.--29.4 mi².

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).

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since July 1, 1936. Datum of gage is 260.01 ft above National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to July 16, 1930, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 30 to Nov. 19, Nov. 30 to Jan. 1, Jan. 22. Records good except those for periods of no gage-height record, Oct. 30 to Nov. 19 and Nov. 30 to Jan. 1, which are fair. Flow occasionally regulated by operation of gates in Pocahontas Dam, 2.5 mi above station. Several measurements of water temperature, other than those published, were made during the year.

AVERAGE DISCHARGE.--64 years, 52.7 ft³/s, 24.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,800 ft³/s, Aug. 28, 1971, gage height, 8.60 ft; minimum, 2.8 ft³/s, Aug. 27, 1932, gage height, 0.73 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
June 16	1900	942	5.03	Sept. 27	1145	*1,120	*5.46
Aug. 26	1315	460	3.79				

Minimum discharge, 13 ft³/s, Aug. 24 and many days in September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	21	40	55	27	38	62	24	73	24	35	19
2	38	20	24	81	30	37	38	48	30	23	21	18
3	22	20	45	56	28	35	35	313	37	34	19	17
4	20	19	65	39	25	37	35	125	34	24	18	17
5	19	85	35	41	26	74	32	49	101	22	18	16
6	18	35	95	34	27	48	35	42	62	32	18	16
7	18	27	68	34	26	39	31	39	31	36	19	15
8	19	23	45	36	24	44	31	35	32	24	72	23
9	19	21	35	27	24	41	30	32	29	23	25	28
10	20	21	30	26	25	37	28	33	27	22	20	28
11	19	25	33	27	25	36	29	32	24	21	19	29
12	18	24	30	27	147	86	29	30	24	20	18	18
13	18	22	28	27	191	54	29	31	23	50	17	16
14	18	21	25	27	66	43	28	29	21	26	17	15
15	18	19	26	29	45	39	30	28	21	24	17	14
16	18	17	26	26	38	36	31	28	205	27	17	14
17	17	19	25	28	36	37	29	29	115	23	16	14
18	18	19	24	29	38	37	26	79	53	20	15	14
19	18	18	27	29	42	35	29	37	38	19	16	14
20	19	21	35	27	44	35	29	29	30	18	17	14
21	18	17	30	29	42	34	27	72	27	18	16	14
22	38	17	105	25	49	32	26	101	25	37	16	14
23	152	16	62	28	76	36	26	37	25	21	15	16
24	45	17	40	28	71	35	26	33	53	18	14	27
25	26	17	34	28	57	33	27	29	41	17	39	17
26	29	17	30	27	46	31	26	28	26	114	78	27
27	26	17	30	26	44	32	24	27	25	101	25	554
28	27	16	42	26	39	33	28	37	28	28	19	222
29	77	90	45	25	---	33	25	34	28	23	17	34
30	30	62	62	25	---	32	24	26	25	21	21	26
31	22	---	35	24	---	39	---	25	---	28	32	---
TOTAL	891	783	1276	996	1358	1238	905	1541	1313	938	726	1310
MEAN	28.7	26.1	41.2	32.1	48.5	39.9	30.2	49.7	43.8	30.3	23.4	43.7
MAX	152	90	105	81	191	86	62	313	205	114	78	554
MIN	17	16	24	24	24	31	24	24	21	17	14	14
CFSM	.98	.89	1.40	1.09	1.65	1.36	1.03	1.69	1.49	1.03	.80	1.49
IN.	1.13	.99	1.61	1.26	1.72	1.57	1.15	1.95	1.66	1.19	.92	1.66

CAL YR 1984 TOTAL 31363 MEAN 85.7 MAX 1340 MIN 16 CFSM 2.91 IN. 39.68
WTR YR 1985 TOTAL 13275 MEAN 36.4 MAX 554 MIN 14 CFSM 1.24 IN. 16.80

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 and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 09...	1400	19	377	8.3	16.0	12.0	120	5.1	5400	1700
JAN 21...	1130	21	346	7.7	.0	--	--	3.4	3300	700
MAR 25...	1045	33	307	9.0	9.5	16.0	141	2.2	330	170
JUN 05...	1300	130	217	7.5	18.5	7.5	81	5.9	>24000	>24000
JUL 10...	1130	21	334	8.3	25.0	10.0	123	1.5	24000	490
AUG 20...	1130	16	386	8.3	22.5	10.5	123	6.0	2200	2300

DATE	HARD-NESS (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 09...	110	29	10	27	3.0	73	25	48	<.10
JAN 21...	110	27	9.6	37	2.4	63	25	62	<.10
MAR 25...	90	23	8.0	23	2.0	57	23	43	.10
JUN 05...	61	16	5.1	14	2.0	41	17	26	.10
JUL 10...	100	26	9.1	22	2.8	69	22	38	<.10
AUG 20...	130	32	11	27	3.3	85	25	48	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 09...	17	200	.147	2.2	.400	1.0	3.3	.580	3.3
JAN 21...	18	220	.022	2.0	E.760	1.3	3.3	.460	5.4
MAR 25...	14	170	.043	1.5	.330	.82	2.3	.420	3.4
JUN 05...	10	110	.076	1.1	.370	1.2	2.3	.560	4.6
JUL 10...	16	180	.061	2.0	.320	.48	2.5	.420	3.3
AUG 20...	17	210	.100	2.6	.130	.68	3.3	.470	3.4

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 09...	1400	--	.8	5.6	--	--	<1	--	--	--	<1
JUN 05...	1300	<.5	--	--	30	1	--	<10	40	2	--

DATE	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)	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)
OCT 09...	--	6	<10	--	11	--	5500	--	80	--	380
JUN 05...	10	--	--	15	--	2000	--	22	--	160	--

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 09...	--	.05	--	<10	--	<1	--	50	--	14	<1.0
JUN 05...	.1	--	5	--	<1	--	50	--	11	--	--

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 09...	<.1	22	4.5	<.1	4.6	<.1	.3	<.1	<.1	<.1	<.1
JUN 05...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 09...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN 05...	--	--	--	--	--	--	--	--	--	--	--

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 mi².

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 11...	1100	E38	446	7.8	16.5	10.7	108	4.9	900	200
JAN 30...	1030	E52	444	7.7	.0	12.5	85	3.3	4	2
APR 08...	1030	E59	420	7.7	11.5	8.4	78	4.5	70	130
JUN 11...	1030	E52	413	7.6	20.5	4.0	45	6.3	920	>2400
JUL 15...	1030	E63	373	7.5	24.5	4.5	55	5.4	1700	490
AUG 22...	1030	E35	493	8.0	21.5	6.3	72	5.1	790	170

DATE	HARD-NESS (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 11...	140	35	13	31	3.4	92	34	51	<.10
JAN 30...	140	35	13	34	3.2	85	36	54	.10
APR 08...	130	34	12	29	2.6	82	31	49	.10
JUN 11...	130	33	12	28	2.3	93	30	45	.20
JUL 15...	110	29	10	24	3.7	80	29	39	.20
AUG 22...	--	--	--	--	--	--	--	--	--

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 11...	17	240	.300	2.6	.960	1.7	4.3	.620	3.9
JAN 30...	17	240	.047	1.8	3.20	4.7	6.5	.640	5.1
APR 08...	14	220	.093	1.4	1.82	2.5	3.9	.480	5.5
JUN 11...	17	220	.256	2.5	1.66	2.5	4.9	.710	8.5
JUL 15...	13	200	.242	2.1	.900	2.0	4.1	.650	11
AUG 22...	--	--	.370	3.0	1.84	2.5	5.5	.790	--

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 11...	1100	<.5	.1	16	10	2	1	<10	100	<1	<1
JUN 11...	1030	<.5	--	--	<10	1	--	<10	90	1	--

DATE	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)	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)
OCT 11...	20	6	<10	4	8	810	4600	10	20	120	53
JUN 11...	10	--	--	12	--	2200	--	22	--	240	--

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 11...	<.1	<.01	6	<10	<1	<1	20	30	1	9	<1.0
JUN 11...	.3	--	7	--	<1	--	40	--	1	--	--

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 11...	<.1	4.0	1.0	<.1	.5	<.1	<.1	<.1	<.1	<.1	<.1
JUN 11...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 11...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN 11...	--	--	--	--	--	--	--	--	--	--	--

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929. 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 NJ 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.--Estimated daily discharges: Jan. 9-14, Jan. 20-24, and Feb. 2-10. Records fair except those over 2,000 ft³/s and those for the period of no gage-height record, Jan. 9-14, Jan. 20-24, and Feb. 2-10, 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.

AVERAGE DISCHARGE.--6 years, 594 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft³/s, Apr. 7, 1984, gage height, 22.90 ft, affected by backwater downstream; minimum observed, 70 ft³/s, Sept. 29, 1980, gage height, 10.15 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1810, according to State Geologist in 1904, 23.2 ft, Oct. 10, 1903, present datum, from King Survey of highwater marks at present NJ 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 NJ 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 ft³/s Sept. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 29	2315	*1,560	*17.01	No peak greater than base discharge.			

Minimum discharge, 89 ft³/s Sept. 23, gage height, 10.36 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	285	340	482	150	493	291	118	334	199	230	177
2	219	225	273	535	186	423	280	141	390	178	213	143
3	194	201	279	708	198	376	224	725	284	179	167	136
4	153	193	474	647	172	338	207	1110	230	176	136	135
5	138	507	384	551	160	450	200	1170	302	148	123	128
6	128	766	523	480	150	554	190	1090	682	135	118	121
7	121	558	769	418	168	498	196	876	596	181	106	113
8	120	430	694	410	155	409	171	628	367	166	183	116
9	123	305	501	383	148	343	164	443	269	150	202	160
10	126	263	352	280	152	311	161	339	223	128	136	171
11	126	263	311	323	158	277	155	279	197	116	108	207
12	124	359	290	279	323	362	151	220	158	117	105	182
13	122	286	272	285	932	569	148	189	147	171	122	133
14	118	231	242	275	1010	513	141	166	129	150	123	116
15	116	215	244	200	956	385	138	143	124	146	111	106
16	117	206	250	200	823	330	142	132	472	164	109	104
17	117	186	239	197	682	308	155	137	895	166	105	106
18	118	181	231	183	554	284	152	285	1050	128	97	106
19	119	181	208	179	476	265	148	434	1010	118	94	102
20	122	180	233	170	450	256	166	340	748	97	101	100
21	122	177	224	161	407	254	154	273	475	95	101	96
22	126	168	521	157	383	240	137	617	323	179	99	93
23	526	158	621	170	509	231	130	727	251	175	96	92
24	535	155	463	174	704	236	125	611	234	107	92	135
25	348	153	350	166	795	229	123	447	423	104	131	177
26	251	152	294	162	788	213	124	314	363	238	540	128
27	218	151	278	156	724	196	121	239	232	603	616	772
28	193	150	286	151	608	192	116	245	180	652	327	1360
29	535	336	428	145	---	194	115	335	191	551	177	1520
30	580	438	572	143	---	190	116	208	190	354	146	1540
31	405	---	549	143	---	186	---	181	---	206	237	---
TOTAL	6498	8159	11695	8913	12921	10105	4841	13162	11469	6277	5251	8575
MEAN	210	272	377	288	461	326	161	425	382	202	169	286
MAX	580	766	769	708	1010	569	291	1170	1050	652	616	1540
MIN	116	150	208	143	148	186	115	118	124	95	92	92

CAL YR 1984 TOTAL 342653 MEAN 936 MAX 7910 MIN 116
WTR YR 1985 TOTAL 107866 MEAN 296 MAX 1540 MIN 92

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 mi².

WATER-QUALITY RECORDS

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 and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 04...	1300	E217	568	7.7	13.5	5.3	51	6.3	>24000	790
FEB 06...	1130	E238	1040	7.5	.0	10.7	74	3.9	<2	2
APR 09...	1300	E202	505	7.6	11.5	5.2	48	4.0	80	80
JUN 20...	1030	E1240	273	7.3	21.0	3.0	34	3.9	540	1600
JUL 23...	1300	E212	557	7.7	26.5	4.7	59	5.4	170	330
AUG 29...	1300	E309	311	7.4	23.5	3.2	38	5.4	700	1300

DATE	HARD-NESS (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 04...	120	31	11	58	3.8	68	52	76	.20
FEB 06...	160	42	13	140	4.3	72	46	250	.30
APR 09...	130	32	12	40	3.7	67	39	63	.20
JUN 20...	73	19	6.2	22	2.0	45	23	34	.10
JUL 23...	130	34	12	47	6.3	86	41	73	.30
AUG 29...	78	20	6.7	26	3.5	46	26	35	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	14	290	.315	2.5	4.45	14	17	.840	5.0
FEB 06...	16	550	.042	2.3	6.35	7.3	9.5	1.03	5.3
APR 09...	13	240	.093	1.8	4.30	4.9	6.7	.840	6.0
JUN 20...	9.5	140	.095	.92	.800	2.1	3.0	.740	9.1
JUL 23...	15	280	.227	1.9	4.60	5.5	7.4	1.29	11
AUG 29...	11	160	.145	1.6	1.70	2.2	3.8	.630	10

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ

LOCATION.--Lat 41°01'00", long 74°23'47", Morris County, Hydrologic Unit 02030103, on left bank at Macopin intake dam of Newark water-works, 0.4 mi downstream from Macopin River, and 3.0 mi northwest of Butler.

DRAINAGE AREA.--63.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1898 to current year. 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 above hewn-rock dam. Datum of gage is 570.00 ft above National Geodetic Vertical Datum of 1929 (levels by New Jersey Geological Survey). Prior to May 22, 1970, at datum 13.55 ft higher.

REMARKS.--No estimated daily discharges. Records good except those below 10 ft^3/s, which are poor. Records given herein represent flow over intake dam only. 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). Several measurements of water temperature were made during the year. National Weather Service gage-height telemeter at station.

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

AVERAGE DISCHARGE.--87 years, 50.9 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 6,100 ft^3/s, Oct. 10, 1903, gage height, 17.4 ft, present datum; no flow over dam during several months of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 272 ft^3/s, Sept. 27, gage height, 14.04 ft; minimum daily, 0.54 ft^3/s,Oct. 4

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	1.6	2.5	7.9	2.4	5.5	5.1	2.1	3.1	1.4	3.2	1.6
2	.99	1.6	2.4	9.9	2.6	5.3	4.8	4.4	2.1	2.3	2.4	1.6
3	.67	1.9	5.0	9.1	2.9	4.7	5.4	21	2.4	2.7	2.4	1.6
4	.54	1.6	5.8	7.1	3.0	4.7	5.4	8.0	2.9	2.0	2.4	1.3
5	.55	4.5	3.7	8.3	3.2	10	6.0	6.1	4.3	2.1	2.4	1.1
6	.55	3.3	8.7	6.0	2.8	7.3	5.2	5.5	2.4	2.6	2.7	1.0
7	.55	2.1	7.1	6.1	3.2	5.8	4.8	5.1	2.4	1.2	3.0	1.0
8	.55	2.3	4.5	4.4	2.8	6.7	5.5	3.5	3.0	.96	3.6	1.6
9	.55	2.4	3.6	17	2.5	7.0	4.6	3.5	2.4	.99	2.4	2.1
10	.55	2.4	3.8	75	2.3	7.9	5.0	3.4	1.2	.79	2.4	2.4
11	.55	2.4	4.7	14	2.4	7.9	5.9	3.5	1.0	.71	2.8	1.8
12	.62	1.7	4.7	12	8.1	11	4.6	3.5	1.2	.85	2.4	1.3
13	1.1	1.1	4.6	8.4	11	5.3	4.8	3.0	.74	2.1	2.4	1.1
14	1.8	.99	4.5	4.2	6.6	4.9	6.0	2.5	.75	.99	3.1	.83
15	2.5	1.6	4.7	3.7	5.3	1.9	6.1	2.4	.87	1.3	2.7	.92
16	3.4	1.3	4.7	3.4	4.2	3.2	5.1	2.4	9.8	1.8	2.4	.99
17	3.4	.84	4.2	3.5	3.5	2.7	2.2	2.4	5.1	1.1	2.4	1.1
18	3.4	1.9	4.0	3.5	3.4	1.7	3.5	8.7	4.4	.83	2.4	1.4
19	3.4	1.6	4.3	3.5	3.7	3.3	3.3	2.6	2.7	.79	3.4	1.3
20	3.4	1.1	4.8	5.1	3.7	2.9	3.5	2.4	2.2	.67	2.9	1.5
21	3.4	1.0	4.9	6.5	3.8	2.5	2.9	3.5	1.8	.95	3.5	1.6
22	4.5	1.7	13	5.9	5.0	3.5	2.6	2.8	1.1	3.4	2.9	2.3
23	4.3	1.6	9.6	5.6	12	4.3	2.4	2.4	.99	2.4	2.4	2.4
24	2.4	1.6	7.7	4.8	15	3.6	2.4	2.4	1.7	2.4	2.4	3.5
25	1.7	1.6	7.1	4.7	11	2.6	2.1	2.4	1.2	2.4	4.3	1.0
26	1.8	1.6	5.3	3.9	7.2	2.9	1.2	2.3	.72	3.2	3.5	2.0
27	2.4	1.6	5.8	3.5	6.2	3.5	1.5	2.4	.87	3.6	2.0	76
28	1.8	1.7	6.6	3.0	5.9	3.9	1.8	3.7	1.3	2.4	1.3	21
29	3.1	6.4	13	2.4	---	3.8	1.2	3.0	1.8	2.4	1.4	17
30	3.8	4.4	9.7	2.4	---	4.6	1.7	2.4	1.5	2.4	2.3	17
31	3.7	---	7.9	2.4	---	4.7	---	2.4	---	3.4	1.7	---
TOTAL	62.54	61.43	182.9	257.2	145.7	149.6	116.6	125.7	67.94	57.13	81.5	171.34
MEAN	2.02	2.05	5.90	8.30	5.20	4.83	3.89	4.05	2.26	1.84	2.63	5.71
MAX	4.5	6.4	13	75	15	11	6.1	21	9.8	3.6	4.3	76
MIN	.54	.84	2.4	2.4	2.3	1.7	1.2	2.1	.72	.67	1.3	.83

CAL YR 1984 TOTAL 33552.75 MEAN 91.7 MAX 3170 MIN .16
WTR YR 1985 TOTAL 1479.58 MEAN 4.05 MAX 76 MIN .54

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic above Vertical Datum of 1929 (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.--Estimated daily discharges: Jan. 10-23 and July 27 to Aug. 28. Records fair except those for periods of no gage-height record, Jan. 10-23 and July 27 to Aug. 28, which are poor. Flow completely regulated by Greenwood Lake (see Passaic River basin, reservoirs in). Several measurements of water temperature were made during the year.

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

AVERAGE DISCHARGE.--66 years, 54.2 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,800 ft³/s, Apr. 5, 1984, gage height, 6.65 ft, from rating curve extended above 750 ft³/s based on theoretical weir formula; no flow at times when gates at Greenwood Lake were closed and water below the spillway.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	0730	*426	*3.62	No other peak greater than base discharge.			

Minimum daily discharge, 1.0 ft³/s Aug. 24.

DISCHARGE, IN CUbIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMbER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEb	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	2.0	1.4	13	12	60	34	9.9	43	24	57	14
2	3.5	1.8	1.4	20	16	57	33	16	37	20	45	12
3	3.4	1.7	1.4	31	17	51	31	82	33	19	36	10
4	3.3	1.7	1.4	30	15	49	30	121	29	18	27	8.3
5	3.3	1.6	1.4	44	14	64	28	117	31	15	22	7.9
6	3.0	1.6	1.4	36	18	56	28	109	37	14	18	7.8
7	3.0	1.6	1.4	35	17	63	28	104	29	16	14	7.5
8	3.2	1.6	1.4	32	16	64	37	89	25	13	27	6.8
9	3.1	1.6	1.4	7.6	12	66	39	71	24	11	29	6.6
10	3.0	1.6	1.4	12	11	59	32	59	22	9.0	22	15
11	2.9	1.6	1.4	13	9.9	53	29	54	18	8.0	18	28
12	2.9	1.5	1.4	13	21	64	29	47	16	5.9	16	19
13	2.9	1.4	1.4	12	53	76	26	43	13	13	11	14
14	2.8	1.3	1.4	12	63	67	25	40	10	11	9.1	8.0
15	2.7	1.2	1.4	12	61	63	25	32	8.3	18	11	5.9
16	2.7	1.2	1.4	11	56	53	27	27	40	26	11	4.1
17	2.9	1.2	1.4	12	51	50	26	27	79	27	9.1	2.8
18	3.2	1.2	1.3	13	47	47	18	60	79	21	8.0	2.3
19	3.2	1.3	1.3	12	44	37	22	58	72	15	6.8	2.2
20	3.2	1.2	1.3	11	41	35	23	47	59	12	6.6	1.7
21	2.7	1.2	1.3	10	38	34	21	46	49	9.4	4.7	1.6
22	2.7	1.2	1.3	10	37	29	22	51	39	31	1.6	1.5
23	2.6	1.2	1.3	11	43	34	20	44	32	30	1.3	1.3
24	2.5	1.2	1.3	12	59	37	17	38	32	20	1.0	2.0
25	2.4	1.2	1.3	12	73	39	19	33	34	15	1.6	2.5
26	2.4	1.2	1.2	13	74	30	19	29	29	15	16	2.1
27	2.3	1.2	1.2	10	74	25	18	27	21	76	18	163
28	2.2	1.2	1.2	10	68	25	14	39	15	73	16	407
29	2.0	1.3	2.0	9.3	---	27	13	48	18	62	13	300
30	1.8	1.3	8.6	9.0	---	28	9.4	39	25	50	12	201
31	1.9	---	10	9.2	---	28	---	33	---	45	21	---
TOTAL	87.4	42.1	58.4	497.1	1060.9	1470	742.4	1639.9	998.3	742.3	509.8	1265.9
MEAN	2.82	1.40	1.88	16.0	37.9	47.4	24.7	52.9	33.3	23.9	16.4	42.2
MAX	3.7	2.0	10	44	74	76	39	121	79	76	57	407
MIN	1.8	1.2	1.2	7.6	9.9	25	9.4	9.9	8.3	5.9	1.0	1.3

CAL YR 1984 TOTAL 26104.7 MEAN 71.3 MAX 2350 MIN 1.2
WTR YR 1985 TOTAL 9114.5 MEAN 25.0 MAX 407 MIN 1.0

01384000 WANAQUE RIVER AT MONKS, NJ

LOCATION.--Lat 41°07'14", long 74°17'41", Passaic County, Hydrologic Unit 02030103, on left bank just upstream from Wanaque Reservoir and 0.3 mi downstream from bridge on Stonetown Road at Monks.

DRAINAGE AREA.--40.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to April 1985 (discontinued). Monthly discharge only for October to December 1934, published in WSP 1302.

REVISED RECORDS.--WDR NJ-84-1: 1955(M), 1956(M), 1968(M), 1971(M), 1979(M), 1980(M).

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 303.17 ft above National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Estimated daily discharges: Jan. 11 to Feb. 22 and Apr. 15-30. Records good except those below 50 ft³/s and for period of no gage-height record, Jan. 11 to Feb. 22 and Apr. 15-30, which are fair. Records given herein include flow over spillway, through ports in dam, and down fish ladder in dam. Flow regulated by Greenwood Lake (see Passaic River basin, reservoirs in). Several measurements of water temperature were made during the year.

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

AVERAGE DISCHARGE.--50 years (water years 1934-84), 83.2 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,100 ft³/s, Apr. 5, 1984, gage height, 4.84 ft from high-water mark, from rating curve extended above 1,500 ft³/s on basis of contracted-opening measurement of peak flow; no flow part of day in some years just after waste gate was closed and water was below intake to ports.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1984 to April 1985, 142 ft³/s, Feb. 24, gage height, 0.85 ft; minimum daily, 3.2 ft³/s, Nov. 17-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	3.5	8.0	29	18	79	50					
2	5.8	3.8	6.4	37	23	71	47					
3	4.9	3.6	9.4	48	24	63	42					
4	4.5	3.4	20	46	22	59	42					
5	4.5	6.4	12	55	21	95	38					
6	4.5	6.2	20	51	25	79	38					
7	4.5	4.4	20	48	23	78	38					
8	4.5	4.0	13	47	22	83	50					
9	4.5	4.0	11	42	19	84	52					
10	4.7	4.0	10	26	16	75	46					
11	5.0	4.0	11	20	15	70	40					
12	5.0	4.5	11	22	35	96	39					
13	5.0	4.0	10	20	74	108	37					
14	5.0	3.7	9.5	20	91	88	34					
15	5.0	3.3	9.6	20	82	81	32					
16	5.0	3.3	9.6	18	76	70	32					
17	4.8	3.2	9.2	18	70	64	35					
18	4.5	3.2	8.6	21	60	62	29					
19	4.9	3.2	8.7	19	56	52	27					
20	5.0	3.2	11	17	54	48	31					
21	5.0	3.2	10	15	52	48	30					
22	5.7	3.2	29	15	66	42	30					
23	9.8	3.2	23	16	103	49	29					
24	6.4	3.2	18	17	133	53	24					
25	5.2	3.2	16	17	135	52	25					
26	5.0	3.2	13	19	116	44	27					
27	5.0	3.2	13	15	106	38	25					
28	5.0	3.2	14	14	90	36	18					
29	5.0	21	27	13	---	37	18					
30	4.7	13	31	12	---	37	16					
31	4.1	---	27	13	---	38	---					
TOTAL	157.4	138.5	449.0	790	1627	1979	1021					
MEAN	5.08	4.62	14.5	25.5	58.1	63.8	34.0					
MAX	9.8	21	31	55	135	108	52					
MIN	4.1	3.2	6.4	12	15	36	16					

CAL YR 1984 TOTAL 34334.1 MEAN 93.8 MAX 1580 MIN 3.2

01387000 WANAQUE RIVER AT WANAQUE, NJ

LOCATION.--Lat 41°02'33", 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 mi², considered as 94 mi² Oct. 1, 1928 to Sept. 30, 1934.

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929 (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.--Estimated daily discharges: Oct. 10-12, June 7-16, June 19 to July 13, and Sept. 17-23. Records good except those from Mar. 13 to Sept. 24, which are poor. Flow regulated by Greenwood Lake (see Passaic River basin, reservoirs in) 11 mi above station, and since 1928 by Wanaque Reservoir (see Passaic River basin, reservoirs in). North Jersey 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). Several measurements of water temperature, other than those published, were made during the year. National Weather Service rain-gage and gage-height telemeters at station.

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

AVERAGE DISCHARGE.--68 years, (water years 1913, 1914, 1920-85), 78.5 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,500 ft³/s, Apr. 5, 1984, gage height, 10.82 ft, from rating curve extended above 4,500 ft³/s; minimum daily, 0.06 ft³/s, Oct. 11, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50 ft³/s, Mar. 7, gage height, 1.71 ft; minimum daily, 0.06 ft³/s, Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	20	20	20	15	19	8.4	2.9	5.4	7.0	4.6	4.6
2	18	20	20	20	15	19	8.2	3.0	5.4	7.0	4.6	4.6
3	19	20	20	20	15	19	10	5.2	5.5	7.0	4.6	4.6
4	19	20	20	20	15	19	8.4	4.9	5.7	7.0	4.6	4.6
5	19	20	20	20	18	19	8.2	4.6	6.6	7.0	4.6	4.6
6	19	20	21	20	19	19	8.2	4.6	5.1	7.0	4.6	4.6
7	19	20	20	19	20	21	8.2	4.7	5.0	7.0	4.6	4.6
8	8.0	20	20	16	19	28	8.2	4.6	5.0	7.0	4.6	4.6
9	1.4	20	20	16	19	19	8.2	5.2	5.0	7.0	4.6	4.6
10	.83	20	20	16	19	19	8.2	3.9	5.0	7.0	4.6	4.6
11	.06	20	20	16	19	19	8.2	3.5	5.0	7.0	4.6	4.6
12	7.1	20	21	16	20	18	8.6	3.5	5.0	7.0	4.6	4.6
13	21	20	20	16	20	10	8.2	3.6	5.0	4.3	4.6	4.6
14	21	20	20	16	20	8.2	8.2	3.5	5.0	4.3	4.6	4.6
15	21	20	20	16	19	8.2	8.2	3.5	5.0	4.3	4.6	4.6
16	20	20	20	16	19	8.2	8.2	3.6	6.2	4.3	4.6	4.6
17	20	20	20	16	19	8.2	8.2	3.5	7.0	4.3	4.6	4.6
18	20	20	20	16	19	8.2	8.2	3.6	7.0	4.3	4.6	4.6
19	20	20	20	16	19	8.2	8.2	3.5	7.0	4.3	4.6	4.6
20	20	20	20	15	19	8.2	8.2	3.5	7.0	4.3	4.6	4.6
21	20	20	20	15	19	8.6	8.2	3.5	7.0	4.3	4.6	4.6
22	21	20	20	15	19	8.2	8.2	3.5	7.0	4.3	4.6	4.6
23	20	20	20	15	19	8.5	8.2	3.8	7.0	4.3	4.6	4.6
24	20	20	20	16	19	8.2	8.2	3.6	7.0	4.3	4.6	13
25	20	20	20	15	19	8.3	8.7	3.4	7.0	4.3	4.6	19
26	20	20	20	15	19	8.3	8.2	3.5	7.0	4.6	4.6	19
27	20	20	20	15	18	8.2	8.2	3.5	7.0	4.6	4.6	23
28	20	20	20	15	20	8.2	8.2	3.9	7.0	4.6	4.6	19
29	20	21	20	15	---	8.5	4.6	3.8	7.0	4.6	4.6	19
30	20	20	20	15	---	8.7	3.0	3.6	7.0	4.6	4.6	19
31	20	---	20	15	---	8.7	---	2.4	---	4.6	4.6	---
TOTAL	534.39	601	622	512	519	397.8	240.3	117.4	182.9	167.5	142.6	236.8
MEAN	17.2	20.0	20.1	16.5	18.5	12.8	8.01	3.79	6.10	5.40	4.60	7.89
MAX	21	21	21	20	20	28	10	5.2	7.0	7.0	4.6	23
MIN	.06	20	20	15	15	8.2	3.0	2.4	5.0	4.3	4.6	4.6

CAL YR 1984 TOTAL 58035.39 MEAN 159 MAX 5470 MIN .06
WTR YR 1985 TOTAL 4273.69 MEAN 11.7 MAX 28 MIN .06

01387000 WANAQUE RIVER AT WANAQUE, NJ--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1963 to September 1980.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and selected water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 03...	1300	19	100	7.2	9.0	11.5	100	1.8	2	<2
JAN 24...	1230	17	97	7.1	2.0	14.0	102	2.7	<2	<2
APR 01...	1130	8.2	143	7.4	7.0	12.0	101	1.5	<2	<2
JUN 19...	1115	7.0	157	7.5	18.0	8.6	92	.8	17	63
JUL 30...	1200	4.6	159	7.3	20.0	8.0	88	1.8	<2	>2400
SEP 03...	1130	4.6	191	7.8	23.0	8.6	101	2.4	33	350

DATE	HARD-NESS (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 03...	27	7.2	2.3	7.3	.60	16	9.7	13	<.10
JAN 24...	29	7.6	2.4	6.8	.70	18	11	12	<.10
APR 01...	41	11	3.2	10	.70	25	13	18	<.10
JUN 19...	45	12	3.6	12	.80	28	14	20	<.10
JUL 30...	44	12	3.5	11	.90	29	13	21	.10
SEP 03...	51	14	3.9	13	1.0	35	13	22	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 03...	6.0	56	.005	.19	.110	.50	.69	.030	3.0
JAN 24...	2.0	53	<.003	<.05	.050	.28	--	.020	2.4
APR 01...	2.3	73	.009	.15	.070	.38	.53	.030	3.0
JUN 19...	1.4	81	.005	.22	.100	.19	.41	.050	3.3
JUL 30...	2.2	81	.006	.27	.230	.49	.76	<.020	2.8
SEP 03...	2.2	90	.004	.09	.090	.54	.63	.020	2.6

01387000 WANAQUE RIVER AT WANAQUE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 03...	1300	<.5	<10	<1	<10	<20	1	20	2
JUN 19...	1115	<.5	<10	<1	<10	20	<1	10	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)	PHENOLS TOTAL (UG/L)
OCT 03...	520	2	1700	<.1	1	<1	10	<1
JUN 19...	210	2	90	<.1	3	<1	20	6

01387420 RAMAPO RIVER AT SUFFERN, NEW YORK

LOCATION.--Lat 41°07'06", long 74°09'38", Rockland County, 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 8, 10, 16, 21, and Feb. 1-10. Records fair. Flow affected by diversion from Spring Valley Water Company well field upstream from station and by occasional regulation by Lake Sebago. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 172 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 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)
Sept. 27	2400	*2,050	*7.83	No other peak greater than base discharge.			

Minimum discharge, 5.9 ft^3/s Sept. 23, gage height, 1.36 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	12	48	71	20	161	99	35	122	68	226	29
2	10	12	34	82	19	145	100	50	114	56	150	20
3	10	11	46	92	20	127	85	451	81	50	86	16
4	9.8	11	82	83	20	115	82	630	67	46	66	15
5	9.3	26	60	87	19	169	77	371	68	38	56	14
6	9.0	29	83	80	18	195	78	285	94	35	63	17
7	9.0	20	93	74	18	158	78	243	75	54	45	14
8	9.0	17	68	70	19	157	100	196	62	45	68	11
9	9.1	14	55	62	18	168	130	160	58	37	76	21
10	9.0	13	50	58	20	145	109	133	52	33	63	42
11	8.8	13	54	50	21	129	98	115	42	27	53	36
12	8.5	15	44	48	63	182	97	100	35	23	39	25
13	8.5	14	42	45	459	232	87	90	32	46	28	18
14	8.7	12	39	43	408	193	82	79	26	43	26	14
15	8.6	11	39	39	211	168	82	66	22	66	29	12
16	8.6	11	37	40	144	145	84	57	197	71	23	11
17	9.2	11	36	41	110	132	82	56	337	60	21	12
18	9.3	10	33	41	96	121	73	137	235	44	17	13
19	9.1	10	34	40	92	108	70	168	164	36	15	11
20	9.5	9.9	40	40	93	99	73	100	110	30	14	9.3
21	9.5	10	40	37	90	95	72	82	89	26	13	8.5
22	15	9.9	91	32	92	87	68	79	74	121	12	7.6
23	23	10	97	30	156	97	65	66	62	112	11	6.6
24	19	11	79	28	270	115	60	56	72	62	9.2	7.0
25	15	11	71	28	296	104	57	48	111	42	11	7.9
26	13	10	60	27	249	89	54	40	75	85	32	8.9
27	13	10	56	26	214	80	48	39	59	262	44	921
28	13	11	57	23	188	78	43	121	68	176	25	1630
29	13	80	79	23	---	79	43	264	79	92	17	601
30	13	69	88	21	---	76	38	153	82	67	17	318
31	13	---	75	20	---	76	---	97	---	62	34	---
TOTAL	342.2	513.8	1810	1481	3443	4025	2314	4567	2764	2015	1389.2	3876.8
MEAN	11.0	17.1	58.4	47.8	123	130	77.1	147	92.1	65.0	44.8	129
MAX	23	80	97	92	459	232	130	630	337	262	226	1630
MIN	8.5	9.9	33	20	18	76	38	35	22	23	9.2	6.6
#	5.1	5.0	6.7	8.3	12	9.3	7.5	13	15	14	14	12

CAL YR 1984 TOTAL 79705.6 MEAN 218 MAX 7110 MIN 8.5 # 9.3
WTR YR 1985 TOTAL 28541.0 MEAN 78.2 MAX 1630 MIN 6.6 # 10

Diversion, in cubic feet per second, by pumpage from well field upstream of station.

01387450 MAHWAH RIVER NEAR SUFFERN, NY

LOCATION.--Lat 41°08'27", long 74°07'01", Rockland County, 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.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 321.57 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 18, 1976, water-stage recorder at site on right bank 13 ft downstream, at present datum.

REMARKS.--Estimated daily discharges: Jan. 22-26. Records good except those for estimated daily discharges, which are fair. Occasional regulation from unknown source. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 24.8 ft^3/s, 27.38 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 extended above 850 ft^3/s on basis of contracted-opening measurements at gage heights 8.52 ft and 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 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Sept. 27	1700	*555	*5.14	No other peak greater than base discharge.			

Minimum discharge, 1.4 ft^3/s Oct. 14, gage height, 1.50 ft; minimum gage height, 1.37 ft Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.7	5.0	12	5.3	15	13	5.7	21	12	40	6.3
2	2.9	2.5	4.3	15	5.6	14	11	9.8	13	12	24	5.2
3	2.5	2.4	9.5	15	5.4	13	10	80	11	11	19	5.1
4	2.1	2.3	11	13	5.2	12	9.6	54	9.6	10	15	4.5
5	1.9	17	7.0	14	4.9	21	8.9	37	13	9.3	13	4.0
6	1.9	8.2	18	12	5.4	20	9.2	31	14	8.7	11	5.5
7	1.8	5.8	13	11	5.1	16	8.8	27	11	8.6	10	4.6
8	1.8	4.7	9.1	11	4.8	18	10	22	10	7.6	14	4.0
9	1.7	4.3	7.7	9.2	4.6	18	11	18	10	7.0	12	7.2
10	1.7	4.3	7.4	7.9	4.6	16	9.6	17	9.2	6.6	9.9	8.9
11	1.7	4.5	7.9	7.7	4.7	14	8.6	15	7.9	5.9	8.4	6.9
12	1.7	6.2	7.7	7.5	15	25	8.1	14	7.7	5.2	7.7	5.2
13	1.6	4.4	7.5	7.4	30	26	7.8	13	7.3	7.4	6.7	4.6
14	1.6	3.7	7.0	7.3	17	21	7.8	12	6.7	6.6	6.4	4.0
15	1.6	3.4	7.5	7.3	13	19	8.2	11	6.3	9.7	9.0	3.1
16	1.6	3.6	7.1	6.8	11	17	8.4	10	44	11	6.5	3.4
17	1.7	3.4	7.1	6.9	10	16	8.0	10	35	10	5.7	3.8
18	1.7	3.2	6.9	7.0	9.8	15	7.4	17	29	7.5	4.8	3.5
19	1.8	3.2	7.1	6.9	10	14	7.3	12	24	6.5	4.8	3.1
20	2.0	3.0	8.4	6.6	12	13	7.7	10	20	5.5	5.2	2.5
21	2.7	2.8	7.7	6.1	11	13	7.3	14	19	5.0	4.6	2.3
22	6.2	2.7	24	6.1	12	12	6.6	22	15	18	3.8	2.3
23	24	2.7	17	5.9	20	13	6.7	13	14	16	3.4	2.3
24	5.2	2.8	14	5.7	28	13	7.4	10	22	13	3.3	4.3
25	3.9	2.8	12	5.7	26	12	6.7	8.8	22	11	4.1	4.0
26	3.7	2.7	10	5.6	21	11	6.3	7.7	17	23	9.9	3.9
27	3.7	2.7	10	5.6	19	10	6.0	7.6	14	44	11	181
28	3.2	2.7	10	5.6	17	11	5.8	28	14	27	6.4	122
29	4.8	12	15	5.5	---	9.7	5.5	28	15	21	5.4	50
30	3.2	6.2	16	5.2	---	9.2	5.4	17	14	17	6.2	33
31	3.0	---	13	5.0	---	9.1	---	14	---	16	11	---
TOTAL	101.0	132.9	314.9	253.5	337.4	466.0	244.1	595.6	475.7	379.1	302.2	500.5
MEAN	3.26	4.43	10.2	8.18	12.0	15.0	8.14	19.2	15.9	12.2	9.75	16.7
MAX	24	17	24	15	30	26	13	80	44	44	40	181
MIN	1.6	2.3	4.3	5.0	4.6	9.1	5.4	5.7	6.3	5.0	3.3	2.3
CFSM	.27	.36	.83	.67	.98	1.22	.66	1.56	1.29	.99	.79	1.36
IN.	0.31	0.40	0.95	0.77	1.02	1.41	0.74	1.80	1.44	1.15	0.91	1.51

CAL YR 1984	TOTAL	11417.5	MEAN	31.2	MAX	862	MIN	1.4	CFSM	2.54	IN.	34.53
WTR YR 1985	TOTAL	4102.9	MEAN	11.2	MAX	181	MIN	1.6	CFSM	.91	IN.	12.41

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 mi².

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.

GAGE.--Water-discharge recorder. Datum of gage is 253.10 ft above National Geodetic Vertical Datum of 1929. 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 sta. 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. Gage-height telemeter at station.

AVERAGE DISCHARGE.--67 years (water years 1903-06,1923-85), 230 ft³/s, 26.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s, April 5, 1984, gage height, 13.35 ft, from rating curve extended above 6,500 ft³/s; minimum, 4.6 ft³/s, Sept. 30, 1981 (possible regulation); minimum daily, 6.1 ft³/s, Sept. 30, 1981 (possible regulation).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	0045	*1,810	*7.68	No other peak greater than base discharge.			

Minimum discharge, 13.0 ft³/s, Oct. 13, gage height, 2.40 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	21	63	98	38	166	116	49	182	97	273	47
2	23	18	51	121	43	153	113	77	156	80	202	37
3	18	18	86	130	45	137	100	482	117	73	130	32
4	17	17	109	113	41	128	94	709	95	67	96	30
5	15	80	75	117	41	187	89	422	116	59	79	29
6	15	53	139	106	43	207	91	326	140	56	86	33
7	15	35	126	99	45	169	89	290	110	72	66	29
8	15	29	87	104	40	171	106	237	89	63	110	29
9	15	26	73	84	38	181	132	198	84	55	111	62
10	15	27	67	74	36	158	115	172	77	50	86	69
11	15	31	71	70	36	145	105	153	65	45	93	55
12	15	37	64	65	119	202	104	135	60	41	60	40
13	14	29	62	66	323	252	95	121	55	80	50	32
14	15	24	60	63	264	204	91	107	48	61	47	28
15	15	23	61	59	195	180	91	89	45	90	50	26
16	15	23	58	54	160	159	93	78	323	106	42	24
17	15	24	56	56	132	145	92	78	415	86	39	24
18	16	22	53	59	120	137	84	171	288	62	34	25
19	16	21	61	59	116	124	80	207	213	52	32	24
20	17	18	63	52	119	115	84	130	157	46	31	22
21	17	19	62	58	113	111	84	116	135	41	30	21
22	73	19	158	51	114	103	82	123	110	165	28	20
23	124	19	141	49	171	113	78	96	92	153	27	19
24	46	20	111	47	280	130	74	79	126	88	24	20
25	30	19	97	48	305	117	71	68	171	65	35	22
26	28	19	85	45	258	104	68	60	118	160	65	32
27	26	18	81	42	224	95	61	66	91	334	72	906
28	25	19	83	39	192	92	58	173	100	225	45	1480
29	34	184	114	39	---	93	58	322	116	139	35	636
30	27	95	125	37	---	94	53	195	119	101	48	357
31	23	---	103	35	---	93	---	134	---	96	61	---
TOTAL	781	1007	2645	2139	3651	4465	2651	5663	4013	2908	2187	4210
MEAN	25.2	33.6	85.3	69.0	130	144	88.4	183	134	93.8	70.5	140
MAX	124	184	158	130	323	252	132	709	415	334	273	1480
MIN	14	17	51	35	36	92	53	49	45	41	24	19
CFSM	.21	.28	.71	.57	1.08	1.20	.74	1.52	1.12	.78	.59	1.17
IN.	.24	.31	.82	.66	1.13	1.38	.82	1.76	1.24	.90	.68	1.31

CAL YR 1984 TOTAL 105287 MEAN 288 MAX 8600 MIN 14 CFSM 2.40 IN. 32.64
WTR YR 1985 TOTAL 36320 MEAN 99.5 MAX 1480 MIN 14 CFSM .83 IN. 11.26

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 and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 10...	1100	61	511	8.1	16.0	8.0	80	1.4	>2400	240
FEB 07...	1100	44	429	7.8	.5	14.1	98	1.5	--	--
MAR 28...	1100	92	303	8.4	11.0	13.8	127	4.2	2800	<20
JUN 20...	1300	155	240	7.8	20.0	8.7	97	2.1	>2400	540
JUL 22...	1100	193	214	7.8	23.5	8.6	103	2.7	5400	3500
SEP 04...	1315	31	392	7.8	21.5	8.6	98	3.0	9200	220

DATE	HARD-NESS (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 10...	130	36	10	49	2.8	86	28	77	.10
FEB 07...	100	29	7.9	50	1.8	68	23	77	<.10
MAR 28...	80	22	6.0	27	1.2	48	19	46	.10
JUN 20...	64	18	4.6	19	1.0	43	16	32	.10
JUL 22...	55	15	4.2	18	1.3	40	18	26	.10
SEP 04...	110	31	8.5	32	1.8	83	24	57	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 10...	7.2	260	.063	3.6	.500	.89	4.5	.540	2.7
FEB 07...	7.0	240	.078	1.6	E1.24	1.4	3.0	.250	2.9
MAR 28...	4.0	150	.033	.77	.740	1.3	2.0	.220	3.2
JUN 20...	6.8	120	.016	.82	.160	.20	1.0	.160	--
JUL 22...	5.4	110	.015	.78	.150	.70	1.5	.180	7.1
SEP 04...	7.2	210	.019	1.6	.110	.62	2.2	.220	4.0

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	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 10...	1100	<10	<1	<10	90	<1	<10	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)	PHENOLS TOTAL (UG/L)
OCT 10...	390	1	190	<.1	4	<1	20	2

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 and 2.0 mi upstream from mouth.

DRAINAGE AREA.--160 mi².

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.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 190.96 ft above National Geodetic Vertical Datum of 1929. Prior to October 1, 1981, at datum 10.00 ft higher.

REMARKS.--No estimated daily discharge. 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 (records given herein). Slight regulation by Pompton Lake, capacity, 300,000,000 gal. Several measurements of water temperature were made during the year. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--64 years, 303 ft³/s, 25.72 in/yr, adjusted for diversion since Dec. 1, 1953.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,400 ft³/s, April 5, 1984, gage height, 15.21 ft, in gage well, 15.33 ft, from flood marks, present datum; no flow part of September 30, 1980 and many days in 1981, 1982, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	0745	*2,300	*11.61	No other peak greater than base discharge.			

No flow part or all of many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	46	109	174	102	78	31	.00	8.9	.00	24	.00
2	58	45	84	205	99	87	29	.00	.61	.00	95	.00
3	52	38	108	236	86	76	36	356	.00	.00	12	.00
4	42	38	211	206	83	87	38	765	.00	.00	.00	.00
5	41	117	145	202	81	99	37	406	.05	.00	.00	.00
6	39	142	218	189	83	151	36	204	.00	.00	.00	.00
7	38	89	257	170	84	91	32	156	.00	.00	.00	.00
8	38	49	180	172	78	68	27	82	.00	.00	.00	.00
9	39	38	137	136	79	92	37	32	.00	.00	.00	.00
10	41	54	121	114	81	76	30	8.0	.00	.00	.00	.00
11	41	57	114	121	81	72	35	.00	.00	.00	.00	.00
12	38	68	112	102	119	92	30	.00	.00	.00	.00	.00
13	34	62	100	108	452	217	24	.00	.00	.00	.00	.00
14	25	53	96	97	385	91	23	.00	.00	.00	.00	.00
15	26	48	97	102	192	47	30	.00	.00	.00	.00	.00
16	27	45	97	70	98	51	35	.00	166	.00	.00	.00
17	27	43	91	92	91	46	24	.00	604	.00	.00	.00
18	27	41	88	90	113	38	29	.00	273	.00	.00	.00
19	23	40	86	91	103	48	20	10	132	.00	.00	.00
20	29	38	106	85	119	36	25	.15	37	.00	.00	.00
21	25	36	97	84	106	48	15	.00	1.3	.00	.00	.00
22	52	34	253	85	96	59	18	.00	.00	.00	.00	5.6
23	319	34	256	90	150	79	17	.00	.00	.00	.00	11
24	111	34	207	92	197	59	16	.00	.00	.00	.41	.00
25	70	34	181	93	284	38	21	.00	.00	.00	37	.00
26	60	34	150	89	270	43	19	.00	.00	.00	23	.00
27	55	34	143	86	217	25	14	.00	.00	106	.00	585
28	51	33	138	84	158	26	18	.00	.00	72	.00	2100
29	59	194	177	84	---	25	.21	138	.00	4.7	.00	1070
30	58	187	229	81	---	30	.00	78	.00	.00	.00	416
31	51	---	193	86	---	26	---	.77	---	.00	.00	---
TOTAL	1640	1805	4581	3716	4087	2101	746.21	2235.92	1222.86	182.70	191.41	4187.60
MEAN	52.9	60.2	148	120	146	67.8	24.9	72.1	40.8	5.89	6.17	140
MAX	319	194	257	236	452	217	38	765	604	106	95	2100
MIN	23	33	84	70	78	25	.00	.00	.00	.00	.00	.00
(†)	0	0	0	0	53.2	153	103	166	156	115	82.0	39.9
MEAN‡	52.9	60.2	148	120	199	221	128	238	197	120	88.1	180
CFSM‡	.33	.38	.92	.75	1.24	1.38	.80	1.49	1.23	.75	.55	1.12
IN.‡	.38	.42	1.07	.86	1.30	1.59	.89	1.71	1.37	.87	.64	1.26

CAL YR 1984 TOTAL 142478 MEAN 389 MAX 10400 MIN 23 MEAN‡ 406 CFSM‡ 2.54 IN.‡ 34.46
WTR YR 1985 TOTAL 26696.70 MEAN 73.1 MAX 2100 MIN 0 MEAN‡ 146 CFSM‡ .91 IN.‡ 12.35

† Diversion, in cubic feet per second, at station to Wanaque and Oradell Reservoirs. Records of diversion furnished by North Jersey District Water Supply Commission and Hackensack Water Company.
‡ Adjusted for diversion.

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929. 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.--Estimated daily discharge: July 20-23. Records fair. Water diverted from reservoirs on Pequannock and Wanaque Rivers, from Pompton River to Point View Reservoir and from Ramapo River to Wanaque Reservoir and Oradell Reservoir (beginning 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 and Wanaque Reservior on Wanaque River (see Passaic River basin, reservoirs in). Several measurements of water temperature were made during the year. National Weather Service gage-height telemeter at station.

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

AVERAGE DISCHARGE.--46 years, (water years 1904, 1941-85), 482 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 28,340 ft³/s, Oct. 10, 1903, gage height, 14.3 ft, site and datum then in use, by computation of peak flow over dam; no flow Aug. 18 to 20, 1904.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept.28	0945	*2,710	*11.94	No peak greater than base discharge.			

Minimum discharge, 15 ft³/s, May 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	90	167	254	107	163	89	19	119	47	71	24
2	94	92	137	297	114	164	81	39	54	35	188	23
3	85	83	187	326	113	147	84	697	35	39	45	23
4	75	82	297	291	104	153	86	1080	29	41	24	24
5	74	209	212	290	109	205	85	499	86	27	24	24
6	71	205	306	273	116	258	86	284	74	34	24	23
7	71	142	342	248	114	178	77	249	47	39	25	24
8	70	97	258	242	106	171	71	127	37	28	47	24
9	62	85	205	196	101	178	81	66	36	27	27	26
10	61	100	186	170	103	153	75	48	30	26	24	32
11	61	109	180	177	104	147	77	34	27	26	24	32
12	57	120	176	157	218	202	69	31	27	25	23	24
13	66	112	162	163	552	319	65	27	26	45	23	24
14	59	99	157	151	468	178	64	26	25	27	24	23
15	61	94	158	153	291	121	70	26	24	26	25	24
16	60	94	155	115	188	113	81	25	518	31	24	24
17	60	88	151	139	166	109	66	25	1100	26	23	24
18	61	84	144	139	182	95	68	79	436	25	23	23
19	61	82	143	143	169	96	58	53	267	25	23	22
20	60	80	162	124	179	90	65	28	112	60	24	22
21	60	78	158	101	167	99	56	43	61	58	23	21
22	137	76	357	122	160	105	58	49	50	73	23	23
23	441	77	339	129	240	124	50	28	44	60	23	25
24	177	76	287	124	312	111	30	26	51	43	22	40
25	127	76	256	122	370	90	35	25	56	24	56	35
26	114	75	216	118	355	92	39	24	36	84	101	39
27	106	75	212	111	306	75	35	30	32	217	31	1180
28	99	74	212	110	250	72	36	101	31	164	24	2500
29	116	280	276	108	---	70	25	246	41	36	23	1590
30	108	258	319	107	---	74	20	124	83	26	32	568
31	97	---	279	104	---	71	---	34	---	31	32	---
TOTAL	2930	3292	6796	5304	5764	4223	1882	4192	3594	1475	1125	6510
MEAN	94.5	110	219	171	206	136	62.7	135	120	47.6	36.3	217
MAX	441	280	357	326	552	319	89	1080	1100	217	188	2500
MIN	57	74	137	101	101	70	20	19	24	24	22	21

CAL YR 1984 TOTAL 267006 MEAN 730 MAX 19900 MIN 57
WTR YR 1985 TOTAL 47087 MEAN 129 MAX 2500 MIN 19

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 mi².

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 04...	1110	75	301	7.7	13.0	8.5	80	2.5	130	20
FEB 05...	1030	97	350	7.6	.5	14.7	101	2.2	<2	<2
APR 09...	1030	82	294	7.9	11.0	9.6	88	4.0	11	140
JUN 18...	1100	445	214	7.6	20.0	7.9	88	3.3	>2400	>2400
JUL 23...	1030	59	280	7.4	23.0	5.0	59	3.9	490	270
AUG 29...	1030	23	319	7.5	22.5	5.3	61	4.5	130	40

DATE	HARD-NESS (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 04...	89	24	7.0	22	1.6	55	23	39	<.10
FEB 05...	94	26	7.1	33	1.6	58	25	59	<.10
APR 09...	83	22	6.7	22	1.5	49	23	39	.10
JUN 18...	59	16	4.6	14	1.5	38	18	26	.10
JUL 23...	77	21	5.9	21	2.5	47	23	35	<.10
AUG 29...	88	24	6.8	25	2.3	57	21	41	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	7.4	160	.074	.92	.440	1.3	2.2	.200	3.2
FEB 05...	7.6	190	.020	1.3	1.43	1.8	3.1	.250	3.4
APR 09...	4.5	150	.058	.91	.710	1.6	2.5	.320	4.0
JUN 18...	6.6	110	.034	.70	.290	.80	1.5	.180	4.8
JUL 23...	7.0	140	.190	1.4	.770	1.5	2.9	.380	5.6
AUG 29...	8.1	160	.228	1.6	.550	1.3	2.9	.410	3.9

01388600 POMPTON RIVER AT PACKANACK LAKE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 04...	1110	--	.1	2.8	--	--	<1	--	--	--	<1
JUN 18...	1100	<.5	--	--	20	2	--	<10	50	<1	--

DATE	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)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
OCT 04...	--	5	<10	--	8	--	5100	--	30	--
JUN 18...	10	--	--	10	--	1100	--	4	--	150

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)
OCT 04...	210	--	.08	--	<10	--	<1	--	60	--
JUN 18...	--	.1	--	4	--	<1	--	100	--	3

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. Water-quality monitor located 0.5 mi upstream from gaging station.

DRAINAGE AREA.--762 mi².

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. Datum of gage is 120.00 ft above National Geodetic Vertical Datum of 1929 (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 National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--No estimated daily discharge. 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, Ramapo, and Wanaque Rivers (see Passaic River basin, diversions and Hackensack River basin, diversions). In addition, the Commonwealth Water Co., diverts from Canoe Brook near Summit and from Passaic River (see Passaic River basin, diversions); that company and the city of East Orange also divert water for municipal supply by pumping wells. Several measurements of water temperature, other than those published, were made during the year. National Weather Service rain-gage and gage-height telemeter at station.

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

AVERAGE DISCHARGE.--88 years, 1,160 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,700 ft³/s, Oct. 10, 1903, present site; no flow July 3-5, 1904, July 16, 23, 1905.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	2130	*3,090	*4.90	No peak greater than base discharge.			

Minimum daily discharge, 82 ft³/s, Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	402	577	805	245	713	392	121	457	261	327	221
2	289	315	434	882	287	610	410	187	480	254	358	169
3	284	232	474	1050	312	540	331	1290	370	239	223	149
4	209	239	779	1010	265	491	317	1810	243	256	165	151
5	180	703	683	908	254	633	299	1680	432	201	137	144
6	166	954	879	811	248	786	293	1410	714	196	127	133
7	157	875	1130	704	262	725	289	1240	694	219	126	120
8	147	631	1010	693	238	626	192	895	488	206	226	115
9	155	431	830	626	214	537	281	584	345	178	272	170
10	163	353	619	416	241	476	250	435	235	160	178	224
11	163	378	540	453	249	435	241	369	221	135	145	249
12	166	473	503	367	593	567	178	287	186	121	121	215
13	151	464	484	379	1390	833	212	242	160	204	120	161
14	146	334	440	370	1460	770	193	205	140	206	143	123
15	140	288	396	358	1260	608	202	151	124	199	143	105
16	143	291	422	309	1060	418	230	133	743	208	123	95
17	144	238	414	283	891	438	219	141	1690	191	112	98
18	143	238	400	323	788	395	209	296	1560	158	100	100
19	147	238	396	322	703	379	198	492	1290	129	98	95
20	141	228	412	287	688	385	231	400	975	111	106	90
21	142	228	401	255	647	342	201	357	654	107	116	91
22	187	218	880	246	620	353	180	614	458	232	106	82
23	1040	204	1010	274	750	358	179	715	347	222	101	90
24	907	205	855	278	992	377	187	656	334	145	91	140
25	605	198	685	275	1140	338	172	512	493	118	147	212
26	405	198	579	269	1150	315	235	365	455	319	780	185
27	325	191	525	253	1050	306	103	250	313	752	727	1640
28	262	221	538	248	894	297	145	410	277	807	471	2920
29	690	557	687	247	---	261	140	613	245	666	217	2770
30	706	750	913	244	---	253	132	420	292	486	200	2070
31	564	---	884	240	---	268	---	200	---	257	290	---
TOTAL	9256	11275	19779	14185	18891	14833	6841	17480	15415	7943	6596	13127
MEAN	299	376	638	458	675	478	228	564	514	256	213	438
MAX	1040	954	1130	1050	1460	833	410	1810	1690	807	780	2920
MIN	140	191	396	240	214	253	103	121	124	107	91	82

CAL YR 1984 TOTAL 600414 MEAN 1640 MAX 18000 MIN 135
WTR YR 1985 TOTAL 155621 MEAN 426 MAX 2920 MIN 82

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 current year.
WATER TEMPERATURE: Water years 1963 to 1980 (once daily), September 1980 to current year.
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.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 965 microsiemens, Feb. 4; minimum 170 microsiemens, Sept. 29.
WATER TEMPERATURE: Maximum, 27.5, July 21; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
16...	1200	292	385	7.8	7.5	7.0	8.9	74	4.3	100	K64
JAN											
07...	1300	675	431	7.4	2.5	4.5	11.8	87	2.1	K28	>1000
FEB											
21...	1300	648	379	7.5	3.0	--	12.5	92	3.6	K48	250
MAY											
29...	1200	594	368	7.6	21.5	1.4	6.5	74	6.6	--	K2600
JUL											
26...	1200	323	423	8.5	25.0	2.0	6.8	82	13	--	--

DATE	HARD-NESS (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 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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV											
16...	110	29	9.6	29	3.3	77	34	47	.10	14	220
JAN											
07...	95	25	7.9	58	2.0	40	27	100	.10	11	260
FEB											
21...	--	--	--	--	--	60	--	--	--	--	--
MAY											
29...	97	26	7.8	29	3.2	73	27	50	.10	11	200
JUL											
26...	120	31	9.8	39	4.4	93	34	60	.40	11	250

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV										
16...	37	29	62	1.9	2.00	3.1	.560	.370	--	--
JAN										
07...	6	11	70	--	--	--	--	--	--	4.5
FEB										
21...	9	16	88	1.2	1.40	2.0	.330	.300	.240	--
MAY										
29...	45	72	91	1.6	1.80	3.6	.550	.310	.280	--
JUL										
26...	51	44	90	2.1	1.80	3.3	.770	.570	.460	12

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 16...	1200	20	1	21	<.5	<1	3	<3	4	49	2
JAN 07...	1300	20	1	21	<.5	<1	2	<3	8	56	2
MAY 29...	1200	80	<1	20	<.5	<1	9	<3	4	32	3

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	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)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 16...	4	120	.2	<10	4	<1	<1	110	<6	11
JAN 07...	<4	80	<.1	<10	2	<1	<1	95	<6	16
MAY 29...	<4	130	.4	<10	2	<1	<1	98	<6	8

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

SPECIFIC CONDUCTANCE (MICROSIEMENS PER CENTIMETER AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	515	509	512	355	347	352	357	343	351	384	348	358
2	516	495	503	372	349	364	382	356	374	352	336	347
3	529	497	516	386	374	382	376	346	368	334	319	325
4	522	478	506	418	387	408	355	336	346	322	308	313
5	482	462	476	415	293	373	341	312	323	422	314	367
6	477	453	465	412	308	346	456	321	383	423	383	399
7	485	475	481	307	279	297	497	363	427	454	433	446
8	477	471	474	327	308	313	410	353	375	436	395	411
9	481	473	477	345	331	341	352	326	335	409	390	398
10	499	483	491	374	347	361	339	330	333	390	378	383
11	523	500	512	385	375	381	350	339	345	388	371	378
12	525	515	521	399	371	384	356	341	349	398	388	391
13	525	510	519	400	375	389	365	354	360	409	396	399
14	524	508	514	381	374	377	371	362	365	442	415	425
15	526	509	518	401	378	393	386	365	372	464	444	450
16	526	510	516	415	404	412	394	376	383	477	462	469
17	511	505	508	424	411	419	403	388	396	473	455	464
18	509	500	503	437	415	425	406	383	392	495	459	478
19	514	500	506	467	440	455	408	399	403	498	478	488
20	526	510	517	465	444	458	408	382	393	520	498	512
21	534	519	525	448	435	440	395	390	393	532	517	524
22	555	527	543	492	447	469	391	336	361	544	522	537
23	503	296	400	500	492	496	361	319	335	530	516	524
24	491	360	416	500	478	494	316	307	310	518	495	509
25	359	320	338	480	466	475	313	299	306	495	480	488
26	384	362	378	479	471	474	319	307	314	515	489	506
27	395	384	389	483	462	472	334	319	323	515	500	509
28	411	396	405	482	461	469	450	338	382	514	498	508
29	429	287	361	459	344	406	490	445	464	512	499	507
30	439	324	355	433	354	394	584	498	539	511	485	502
31	354	311	331	---	---	---	506	389	457	495	481	490
MONTH	555	287	467	500	279	407	584	299	373	544	308	445

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	580	482	516	331	314	323	434	410	422	569	555	563
2	678	592	637	333	324	328	438	405	429	584	566	577
3	770	645	675	349	329	333	416	405	411	565	302	406
4	965	798	869	389	349	357	418	407	412	293	233	265
5	959	894	910	435	388	408	429	418	423	244	231	237
6	902	776	861	477	396	439	444	427	435	264	244	254
7	785	715	761	424	382	398	450	438	444	271	257	264
8	711	659	680	379	363	368	440	427	434	300	272	283
9	653	623	633	365	354	361	432	419	423	333	299	314
10	647	589	622	387	367	378	434	422	428	346	330	338
11	642	619	632	408	389	400	453	425	441	374	349	365
12	655	469	603	402	372	391	461	441	453	391	372	384
13	614	491	541	378	370	374	464	444	455	414	387	398
14	507	437	460	370	353	359	500	452	477	442	416	434
15	448	424	440	357	339	349	504	493	499	467	445	459
16	422	413	419	373	353	366	500	478	487	477	455	464
17	412	407	410	390	373	385	495	468	482	483	465	474
18	411	402	406	397	382	392	503	488	496	488	438	471
19	412	398	403	385	378	382	527	483	501	502	413	466
20	414	400	406	399	384	394	554	524	539	418	382	410
21	419	407	410	401	393	397	555	539	546	378	358	368
22	417	407	412	398	389	395	538	513	524	399	311	361
23	418	398	408	407	395	400	546	503	522	380	294	318
24	402	357	379	399	388	391	552	540	545	311	288	299
25	353	316	329	401	392	397	554	542	547	314	305	308
26	314	300	305	422	401	413	549	516	527	348	315	336
27	305	291	299	419	409	413	525	509	515	382	349	370
28	313	295	302	431	414	424	530	521	526	391	374	381
29	---	---	---	444	433	439	529	513	521	382	332	355
30	---	---	---	446	435	442	553	520	534	354	317	330
31	---	---	---	442	435	439	---	---	---	369	341	351
MONTH	965	291	526	477	314	388	555	405	480	584	231	374

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS PER CENTIMETER AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	401	355	377	433	413	428	325	279	302	439	380	415
2	427	351	390	453	428	444	367	329	356	437	382	406
3	377	351	365	461	438	452	373	362	367	400	380	386
4	372	365	368	469	448	458	382	361	372	441	396	409
5	386	325	368	463	440	452	394	384	390	474	445	464
6	403	319	362	461	450	456	427	395	405	476	465	470
7	317	280	300	459	447	452	448	431	444	483	471	477
8	322	308	312	522	446	477	448	425	442	492	482	487
9	353	324	341	524	500	513	478	414	449	490	478	485
10	395	354	378	495	452	466	488	427	471	497	485	491
11	427	394	404	462	449	454	420	393	402	487	470	477
12	451	430	443	507	462	480	429	392	418	501	483	491
13	472	452	463	541	494	526	452	419	440	498	482	490
14	482	466	470	541	487	517	457	445	451	506	487	497
15	495	483	488	535	436	491	462	444	455	487	440	457
16	495	302	407	456	433	443	474	449	464	477	450	469
17	367	242	272	477	441	462	477	463	469	480	469	472
18	251	234	242	469	451	458	537	482	517	507	483	497
19	262	249	255	478	448	460	533	516	524	520	508	515
20	287	263	273	517	481	500	563	527	548	556	521	545
21	309	289	297	527	519	523	588	554	573	568	554	562
22	347	310	333	520	435	487	578	550	567	570	557	565
23	367	345	358	471	430	454	581	562	571	587	557	574
24	381	346	363	492	475	487	562	536	549	589	558	578
25	424	324	365	491	464	475	557	542	552	589	555	571
26	424	367	391	464	372	427	558	370	435	587	533	570
27	367	339	350	423	318	381	401	237	319	526	228	347
28	382	338	358	314	221	252	270	234	248	269	180	226
29	408	382	398	228	214	220	315	275	300	180	170	175
30	449	404	426	251	227	241	354	315	331	193	180	185
31	---	---	---	283	255	269	378	353	364	---	---	---
MONTH	495	234	364	541	214	439	588	234	435	589	170	458

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.0	14.5	15.0	16.5	15.5	15.5	8.0	7.0	7.5	5.5	5.0	5.0
2	14.5	14.0	14.5	15.5	14.0	15.0	7.0	6.5	7.0	6.5	5.5	6.0
3	14.0	13.5	14.0	14.0	12.5	13.0	6.5	6.5	6.5	6.0	5.0	5.5
4	14.5	13.5	14.0	12.5	12.0	12.5	6.5	5.5	5.5	5.0	4.0	4.5
5	14.5	13.5	14.0	13.0	12.0	12.5	5.5	4.5	5.0	4.0	3.0	3.5
6	14.0	13.0	13.5	13.5	12.5	13.0	4.5	4.0	4.0	3.0	2.5	2.5
7	14.0	13.0	13.5	13.0	11.0	12.0	4.0	3.0	3.5	3.0	2.5	3.0
8	14.0	13.0	13.5	11.0	9.5	10.0	3.0	2.0	2.5	3.0	2.0	2.5
9	15.0	13.5	14.0	9.5	9.0	9.5	2.5	2.0	2.0	2.0	.5	1.0
10	15.5	14.5	15.0	10.5	9.5	10.0	3.5	2.5	3.0	.5	.0	.5
11	16.5	15.0	15.5	11.5	10.5	10.5	4.5	3.5	4.0	.5	.5	.5
12	17.0	16.0	16.5	11.5	11.0	11.5	5.0	4.5	5.0	.5	.0	.5
13	17.0	16.0	16.5	11.0	9.5	10.0	6.0	5.0	5.5	.5	.5	.5
14	16.0	15.5	16.0	9.5	8.0	8.5	6.5	6.0	6.0	1.0	.5	.5
15	16.5	15.0	15.5	8.0	7.0	7.5	6.5	6.0	6.0	1.0	.5	.5
16	16.0	15.0	15.5	8.0	7.5	7.5	6.5	6.0	6.5	.5	.0	.5
17	15.5	14.5	15.0	7.5	7.0	7.0	7.5	6.5	7.0	.5	.0	.5
18	16.0	15.0	15.5	7.0	7.0	7.0	8.0	7.0	7.5	.5	.0	.5
19	16.0	15.0	15.5	7.0	6.5	6.5	8.0	7.0	7.5	.5	.5	.5
20	16.5	15.5	16.0	6.5	5.0	6.0	7.0	6.5	6.5	.5	.0	.0
21	16.5	16.0	16.5	5.0	4.5	5.0	6.0	5.0	5.5	.5	.0	.0
22	17.0	16.0	16.5	4.5	4.0	4.5	6.0	5.0	5.5	.5	.0	.0
23	17.0	16.5	16.5	4.5	4.0	4.0	5.5	5.0	5.5	.5	.0	.5
24	16.5	16.0	16.5	4.5	3.5	4.0	5.0	4.5	4.5	.5	.0	.5
25	16.0	15.0	15.5	5.0	4.0	4.5	4.5	4.0	4.5	.5	.5	.5
26	15.5	15.0	15.0	5.5	4.5	5.0	4.0	3.5	3.5	.5	.5	.5
27	15.5	15.5	15.5	5.5	5.0	5.5	3.5	2.5	3.0	.5	.0	.5
28	16.5	15.5	16.0	7.0	5.5	6.0	3.0	2.0	2.5	.5	.0	.5
29	18.0	17.0	17.5	9.5	7.0	8.5	5.0	3.0	4.0	.5	.5	.5
30	17.5	17.0	17.0	8.5	8.0	8.0	6.0	5.0	6.0	.5	.5	.5
31	17.0	16.5	16.5	---	---	---	6.0	5.5	5.5	.5	.0	.5
MONTH	18.0	13.0	15.5	16.5	3.5	8.5	8.0	2.0	5.0	6.5	.0	1.5

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.5	.5	5.0	4.0	4.5	11.5	10.5	11.0	19.5	17.5	18.5
2	.5	.5	.5	6.5	5.0	5.5	10.5	9.0	9.5	18.5	16.0	17.5
3	.5	.5	.5	7.0	5.5	6.5	9.0	8.0	8.5	16.0	12.0	13.5
4	.5	.0	.5	6.0	4.5	5.5	9.5	7.5	8.5	13.0	11.5	12.5
5	.5	.0	.5	6.0	4.5	5.0	12.0	9.0	10.5	14.5	12.5	13.5
6	.5	.0	.0	5.5	4.5	5.0	13.5	12.0	13.0	16.0	14.0	15.0
7	.5	.0	.5	5.0	4.5	5.0	13.5	12.5	13.0	17.0	16.0	16.5
8	.5	.0	.5	5.5	4.5	5.0	13.5	12.0	13.0	17.5	16.0	16.5
9	.5	.0	.5	6.5	5.0	6.0	12.0	10.5	11.5	17.0	15.5	16.0
10	.5	.0	.5	7.5	6.0	7.0	11.0	9.5	10.0	18.0	16.0	17.0
11	.5	.5	.5	7.5	6.5	7.0	10.0	9.5	10.0	20.0	17.5	19.0
12	.5	.5	.5	8.0	7.5	7.5	11.5	9.0	10.0	21.5	19.5	20.5
13	.5	.5	.5	9.0	7.5	8.0	12.5	10.5	11.5	23.5	21.5	22.5
14	1.0	.5	.5	9.0	8.5	8.5	12.0	11.5	12.0	24.0	22.5	23.0
15	1.0	.5	1.0	8.5	7.5	8.0	12.5	11.5	12.0	22.5	21.5	22.5
16	1.5	.5	1.0	8.0	6.5	7.5	14.0	12.5	13.0	22.0	21.0	21.5
17	1.5	1.0	1.0	8.0	7.0	7.5	14.0	12.5	13.0	21.5	20.5	21.0
18	2.5	1.0	2.0	7.5	6.5	7.0	14.5	12.5	13.5	20.5	19.5	20.0
19	3.0	2.0	2.5	7.0	6.0	6.5	16.0	14.0	15.0	19.5	18.5	19.0
20	3.5	2.5	3.0	7.5	6.5	7.0	16.0	15.0	15.5	19.5	17.5	18.5
21	3.5	2.5	3.0	7.5	6.0	7.0	17.5	15.5	16.5	19.5	19.0	19.5
22	4.5	3.0	3.5	8.0	6.5	7.5	19.0	16.5	18.0	21.0	18.5	20.0
23	6.0	4.5	5.0	8.0	7.0	7.5	19.0	17.5	18.5	20.5	19.0	19.5
24	7.5	6.0	6.5	8.0	7.5	8.0	18.0	16.5	17.5	19.0	18.0	18.5
25	7.5	6.5	7.0	8.5	7.0	8.0	16.5	16.0	16.5	20.0	18.0	19.0
26	7.0	6.0	6.0	8.5	7.0	8.0	17.5	16.0	16.5	21.0	19.0	20.0
27	6.5	5.5	6.0	10.0	7.5	8.5	18.5	16.5	17.5	22.5	20.5	21.5
28	5.5	5.0	5.5	12.0	10.0	10.5	17.5	16.0	17.0	22.5	21.5	22.0
29	---	---	---	14.5	12.0	13.0	18.0	15.5	16.5	21.5	20.0	21.0
30	---	---	---	14.5	14.0	14.0	19.5	16.5	18.0	21.0	19.5	20.5
31	---	---	---	14.0	12.0	13.0	---	---	---	20.5	19.5	20.0
MONTH	7.5	.0	2.0	14.5	4.0	7.5	19.5	7.5	13.5	24.0	11.5	19.0

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

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 Route 17 in Ridgewood and 2.8 mi upstream from Hohokus Brook.

DRAINAGE AREA.--21.6 mi^2.

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929 (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. Gage-height telemeter at station.

AVERAGE DISCHARGE.--28 years (water years 1955-74, 1978-85), 35.4 ft^3/s, 22.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,650 ft^3/s, Nov. 8, 1977, gage height, 12.25 ft; minimum daily, 0.2 ft^3/s, Sept. 17, 18, 1966.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood on 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.

EXTREMES 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)
Oct. 23	0030	485	4.15	Sept. 27	1700	*891	*5.37

Minimum daily discharge, 0.93 ft^3/s, Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	9.2	14	19	10	13	22	7.5	50	12	16	9.6
2	13	9.2	12	35	12	13	17	14	19	11	9.6	7.3
3	8.8	8.6	44	30	11	13	13	181	14	12	7.7	7.3
4	6.4	8.6	33	21	9.9	13	13	49	12	11	6.9	8.2
5	6.1	93	17	22	9.6	29	12	27	34	9.9	6.6	7.3
6	5.6	24	73	20	10	20	12	21	23	10	6.2	5.3
7	6.1	15	34	19	9.9	15	12	35	14	14	5.7	4.7
8	5.7	12	22	19	9.2	18	12	19	16	10	12	4.4
9	6.2	11	20	15	9.2	18	13	15	14	9.4	8.8	27
10	5.8	11	17	14	9.4	15	11	15	12	8.8	6.5	22
11	6.8	15	16	14	9.5	14	10	14	11	8.3	23	9.4
12	6.2	21	15	14	80	37	10	14	9.8	8.0	14	5.9
13	6.7	14	15	14	64	27	9.7	13	8.8	30	7.0	5.0
14	5.8	12	13	13	25	19	9.7	11	8.1	13	8.4	4.6
15	6.5	11	13	13	19	16	11	9.5	7.9	10	7.7	4.4
16	6.4	11	13	12	17	15	11	7.5	122	11	7.4	4.0
17	7.2	11	13	13	16	14	9.9	9.3	51	16	6.0	3.8
18	6.2	10	12	13	15	14	9.3	18	40	8.7	5.7	3.7
19	7.2	10	13	13	16	13	9.5	14	21	7.2	6.6	3.7
20	6.8	9.8	17	11	18	13	11	10	16	6.2	6.2	3.1
21	7.2	9.7	16	10	16	13	10	43	14	5.0	4.6	3.0
22	37	9.4	72	11	17	13	9.8	37	11	43	2.7	2.2
23	108	9.2	26	12	22	14	9.7	15	12	12	2.1	2.4
24	20	9.4	20	12	24	14	9.4	12	17	6.9	.93	3.8
25	14	9.4	18	12	20	13	9.8	8.1	20	5.7	4.8	3.5
26	14	9.2	16	11	17	11	9.5	9.3	11	50	119	4.7
27	11	9.1	17	10	16	12	9.2	16	10	56	20	300
28	10	9.8	17	10	14	11	8.6	58	10	15	9.0	61
29	25	86	26	9.9	---	11	8.4	44	11	11	6.7	23
30	13	21	27	9.5	---	11	8.2	17	13	9.5	29	15
31	10	---	20	9.2	---	12	---	14	---	8.7	30	---
TOTAL	408.7	508.6	701	460.6	525.7	484	330.7	777.2	632.6	449.3	406.83	569.3
MEAN	13.2	17.0	22.6	14.9	18.8	15.6	11.0	25.1	21.1	14.5	13.1	19.0
MAX	108	93	73	35	80	37	22	181	122	56	119	300
MIN	5.6	8.6	12	9.2	9.2	11	8.2	7.5	7.9	5.0	.93	2.2
CFSM	.61	.79	1.05	.69	.87	.72	.51	1.16	.98	.67	.61	.88
IN.	.70	.88	1.21	.79	.91	.83	.57	1.34	1.09	.77	.70	.98

CAL YR 1984 TOTAL 18220.0 MEAN 49.8 MAX 998 MIN 5.6 CFSM 2.31 IN. 31.38
WTR YR 1985 TOTAL 6254.53 MEAN 17.1 MAX 300 MIN .93 CFSM .79 IN. 10.77

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Estimated daily discharges: July 23 to Aug. 27. Records good except those above 300 ft³/s and for period of no gage-height record, July 23 to Aug. 27, 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. Gage-height telemeter at station.

AVERAGE DISCHARGE.--27 years (water years 1955-73, 1978-85), 33.1 ft³/s, 27.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft³/s, Nov. 8, 1977, gage height, 7.06 ft, from rating curve extended above 750 ft³/s by computation of peak flow over dam; minimum, 1.9 ft³/s, Aug. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1315	*733	*3.20	No other peak greater than base discharge.			

Minimum discharge, 7.7 ft³/s, Sept. 21, 22, 23, gage height, 1.26 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	19	25	28	19	24	32	17	56	20	20	17
2	26	18	21	52	20	22	23	29	26	20	16	15
3	19	19	50	41	20	21	21	158	21	22	12	15
4	16	17	43	31	18	22	20	54	19	20	10	15
5	16	91	26	33	17	44	20	31	50	19	16	17
6	16	36	78	27	19	31	23	27	36	23	13	16
7	16	24	43	26	18	25	20	43	23	24	11	14
8	16	22	29	26	17	31	21	26	25	19	25	14
9	17	21	25	22	18	28	21	22	24	19	15	29
10	17	21	24	21	19	25	19	22	22	18	13	23
11	17	26	24	22	19	23	19	21	21	19	26	19
12	17	31	22	22	82	48	19	22	21	17	20	18
13	17	22	22	21	81	35	18	21	19	33	15	17
14	16	19	20	21	35	27	19	20	18	20	30	15
15	16	18	23	21	28	25	19	17	20	20	18	14
16	16	18	21	20	25	23	20	18	124	23	15	15
17	16	18	21	22	23	23	19	18	91	19	13	16
18	16	18	20	22	23	22	18	44	53	18	12	13
19	16	18	23	20	25	22	19	24	34	15	11	12
20	16	18	25	19	27	23	19	19	29	13	14	12
21	15	17	26	18	24	21	18	31	25	13	13	12
22	50	17	83	18	26	20	18	31	23	52	12	12
23	111	17	36	19	34	24	18	20	21	27	13	12
24	33	17	28	19	37	23	17	20	26	22	12	14
25	23	17	25	20	33	21	17	18	25	19	20	14
26	25	17	23	19	28	20	18	17	20	54	110	16
27	21	16	25	18	25	20	17	25	20	65	25	220
28	20	16	28	18	24	20	16	62	22	30	18	72
29	36	108	43	19	---	21	17	53	21	19	16	29
30	23	34	37	17	---	20	16	25	22	16	35	22
31	20	---	28	17	---	23	---	21	---	13	32	---
TOTAL	723	770	967	719	784	777	581	976	957	731	631	749
MEAN	23.3	25.7	31.2	23.2	28.0	25.1	19.4	31.5	31.9	23.6	20.4	25.0
MAX	111	108	83	52	82	48	32	158	124	65	110	220
MIN	15	16	20	17	17	20	16	17	18	13	10	12
CFSM	1.42	1.57	1.90	1.41	1.71	1.53	1.18	1.92	1.95	1.44	1.24	1.52
IN.	1.64	1.75	2.19	1.63	1.78	1.76	1.32	2.21	2.17	1.66	1.43	1.70

CAL YR 1984 TOTAL 19905 MEAN 54.4 MAX 1050 MIN 15 CFSM 3.32 IN. 45.15
WTR YR 1985 TOTAL 9365 MEAN 25.7 MAX 220 MIN 10 CFSM 1.57 IN. 21.24

01391200 SADDLE RIVER AT FAIR LAWN, NJ

LOCATION.--Lat 40°56'30", long 74°05'36", Bergen County, Hydrologic Unit 02030103, at bridge on Century Road in Fair Lawn, and 0.8 mi downstream from Hohokus Brook.

DRAINAGE AREA.--45.2 mi².

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 02...	1245	E64	482	7.8	14.0	8.7	85	7.2	940	490
JAN 29...	1230	E36	725	7.8	5.0	11.2	87	3.9	5	2
APR 02...	1130	E35	670	7.9	10.0	10.5	94	11	>2400	>2400
MAY 21...	1215	E34	700	7.7	19.5	5.8	63	16	24000	24000
JUL 17...	1145	E30	645	7.8	23.5	5.5	65	9.6	16000	2200
AUG 15...	1145	E30	590	7.7	26.0	5.2	64	12	5400	330

DATE	HARD-NESS (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 02...	140	38	12	37	3.8	97	33	52	.10
JAN 29...	180	48	15	58	5.8	175	46	82	.10
APR 02...	170	46	14	53	4.8	106	44	81	.10
MAY 21...	180	48	15	54	6.0	106	49	83	.20
JUL 17...	160	42	14	53	7.4	104	44	81	.10
AUG 15...	150	39	13	50	7.1	92	38	69	.30

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 02...	10	240	.420	3.4	<.050	1.7	5.0	1.00	4.3
JAN 29...	13	370	.207	2.1	11.6	12	14	1.80	7.6
APR 02...	10	320	.405	2.2	7.95	9.2	11	1.40	6.5
MAY 21...	14	330	.440	2.2	10.8	11	13	2.10	7.5
JUL 17...	13	320	.790	4.9	4.75	6.4	11	2.55	8.3
AUG 15...	12	280	.545	3.2	4.60	6.0	9.2	1.95	17

01391200 SADDLE RIVER AT FAIR LAWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 02...	1245	--	<.1	1.8	10	2	<1	<10	150	1	<1
MAY 21...	1215	<.5	--	--	30	2	--	<10	230	1	--

DATE	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)	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)
OCT 02...	10	4	<10	14	4	410	2100	6	<10	130	90
MAY 21...	10	--	--	10	--	260	--	3	--	120	--

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 02...	.1	<.01	1	<10	<1	<1	30	20	2	2	<1.0
MAY 21...	<.1	--	4	--	<1	--	20	--	4	--	--

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 02...	<.1	7.0	1.3	.4	4.1	<.1	.3	<.1	<.1	<.1	<.1
MAY 21...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 02...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
MAY 21...	--	--	--	--	--	--	--	--	--	--	--

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 mi².

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 National Geodetic Vertical Datum of 1929. Prior to Nov. 2, 1938, at site 560 ft downstream at datum 2.54 ft lower.

REMARKS.--No estimated daily discharge. Records fair. Occasional regulation at low flow. Diversion above station at Arcola by Hackensack Water Co., for municipal supply (records given herein). The flow past this station is affected by pumpage from wells by Hackensack Water Co. and others. Several measurements of water temperature, other then those published, were made during the year. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--62 years, 101 ft³/s, 25.12 in/yr, adjusted for diversion since 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s, Nov. 9, 1977, gage height, 12.36 ft, from high-water mark in gage house; minimum, 1.0 ft³/s, May 25, 1938, gage height, 1.03 ft, site and datum then in use; minimum daily, 6.0 ft³/s, Aug. 23, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 26	0500	1,590	5.32	Sept. 27	1745	*2,120	*6.44

Minimum discharge, 5.1 ft³/s, Jan. 16, gage height 1.43 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	44	54	57	47	42	72	35	155	34	41	42
2	71	37	40	109	45	39	39	67	47	32	29	36
3	50	34	136	86	39	38	35	546	37	36	27	38
4	40	34	114	60	37	44	34	132	35	34	26	37
5	38	298	53	69	36	83	35	58	147	32	27	35
6	38	93	198	57	37	54	36	49	69	59	27	39
7	37	54	108	52	37	41	33	117	39	50	27	33
8	37	45	65	51	35	51	34	46	49	33	65	57
9	38	43	57	46	36	48	35	38	38	33	33	94
10	38	42	53	45	37	44	32	38	36	32	28	79
11	39	65	51	47	36	43	30	38	35	31	90	47
12	38	71	49	46	364	117	29	38	36	30	58	36
13	38	46	48	45	261	69	30	46	36	65	30	36
14	37	39	47	45	84	42	32	36	33	35	78	33
15	35	38	51	44	58	39	34	31	34	40	40	33
16	36	35	49	43	47	38	35	29	337	80	32	33
17	35	33	49	48	42	38	31	31	176	35	29	34
18	36	31	47	47	41	36	31	63	106	32	27	32
19	35	33	47	44	42	35	32	37	54	29	28	33
20	36	32	50	40	46	39	32	29	43	28	29	33
21	34	32	60	40	41	36	32	168	39	27	28	33
22	125	30	196	40	41	37	32	123	36	158	27	31
23	423	29	77	43	52	38	30	36	34	50	27	33
24	92	29	55	43	62	36	26	35	67	30	26	45
25	60	28	51	44	52	34	27	33	46	29	84	36
26	68	31	47	41	43	34	26	33	35	172	674	52
27	54	34	49	39	42	33	28	63	35	172	107	1070
28	49	34	60	38	40	33	28	172	40	40	45	243
29	171	254	85	38	---	35	26	152	37	33	38	75
30	58	78	80	37	---	35	30	43	40	31	151	53
31	49	---	57	38	---	43	---	36	---	31	112	---
TOTAL	1997	1726	2183	1522	1780	1374	986	2398	1951	1553	2090	2511
MEAN	64.4	57.5	70.4	49.1	63.6	44.3	32.9	77.4	65.0	50.1	67.4	83.7
MAX	423	298	198	109	364	117	72	546	337	172	674	1070
MIN	34	28	40	37	35	33	26	29	33	27	26	31
(†)	0	12.9	14.8	13.0	17.8	20.4	14.7	20.7	21.4	14.9	13.4	12.8
MEAN‡	64.4	70.4	85.2	62.1	81.4	64.7	47.6	98.1	86.4	65.0	80.8	96.5
CFSM	1.18	1.29	1.56	1.14	1.49	1.18	.87	1.80	1.58	1.19	1.48	1.77
IN.	1.36	1.44	1.80	1.31	1.55	1.37	.97	2.07	1.77	1.37	1.71	1.97

CAL YR 1984 TOTAL 59794 MEAN 163 MAX 2970 MIN 28 MEAN‡ 165 CFSM‡ 3.02 IN.‡ 41.04
WTR YR 1985 TOTAL 22071 MEAN 60.5 MAX 1070 MIN 26 MEAN‡ 75.2 CFSM‡ 1.38 IN.‡ 18.70

† Diversion, equivalent in cubic feet per second, above station by Hackensack Water Co. Records of diversion furnished by Hackensack Water Co.
‡ 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 and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 02...	1045	78	418	7.8	13.0	7.2	69	8.4	11000	4900
JAN 29...	1030	33	740	7.8	1.0	10.0	70	4.5	79	8
APR 02...	1000	36	620	7.7	7.0	7.7	64	5.4	220	130
MAY 21...	1100	27	690	7.8	19.0	2.6	28	5.7	>2400	1600
JUL 17...	1030	37	560	7.7	22.0	2.5	29	4.9	2400	3500
AUG 15...	1030	31	355	7.4	25.0	2.4	29	9.6	16000	9200

DATE	HARD-NESS (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 02...	120	34	9.6	30	3.4	85	30	43	.10
JAN 29...	200	53	16	58	5.3	123	46	83	<.10
APR 02...	180	50	14	49	3.9	114	42	82	.20
MAY 21...	190	53	15	49	5.3	125	44	86	.10
JUL 17...	160	42	13	41	5.1	109	35	67	.10
AUG 15...	95	26	7.4	25	4.1	61	25	39	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 02...	8.7	210	.455	3.2	1.40	1.8	5.0	.930	3.9
JAN 29...	13	350	.189	2.7	8.65	9.6	12	1.45	6.5
APR 02...	9.8	320	.285	2.0	6.10	6.6	8.5	.990	5.8
MAY 21...	13	340	.310	1.8	7.00	7.2	9.0	1.45	5.8
JUL 17...	11	280	.325	1.9	3.40	4.7	6.6	1.43	9.9
AUG 15...	7.2	170	.219	1.5	2.14	2.9	4.4	1.00	8.2

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 22.15 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 28 to Mar. 28. Records fair except those for period of no gage-height record, Jan. 28 to Mar. 28, which are poor. Some regulation from ponds upstream. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years, 22.0 ft³/s, 25.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s, Nov. 8, 1977, gage height, 8.25 ft, from rating curve extended above 300 ft³/s) on basis of contracted-opening measurement of peak flow; minimum, 0.84 ft³/s, July 3, 1981, gage height, 1.39 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 550 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 5	0600	833	4.91	July 26	2330	675	4.52
May 21	1930	760	4.73	Aug. 26	0415	725	4.64
June 16	0445	663	4.49	Sept. 27	1230	*1,120	*5.63

Minimum discharge, 3.4 ft³/s, Aug. 23, 24, gage height, 1.63 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	6.2	7.4	12	7.4	8.2	27	4.9	38	6.7	9.9	7.1
2	16	6.1	6.7	30	7.2	7.8	7.1	19	7.8	6.6	6.7	6.7
3	6.0	5.9	54	12	6.8	7.6	6.9	175	7.5	12	6.0	6.6
4	5.5	6.2	13	10	6.4	10	6.4	15	6.5	6.1	5.8	5.9
5	5.7	162	8.1	16	6.0	27	6.3	9.5	64	6.1	5.8	5.8
6	5.2	11	84	11	6.2	12	6.1	8.9	11	27	5.3	5.8
7	5.1	8.2	14	9.6	6.2	8.0	5.9	8.3	7.6	12	6.4	5.5
8	5.6	7.7	10	9.2	5.8	15	7.4	7.5	10	6.7	27	6.1
9	5.9	7.7	9.0	8.1	6.0	14	6.1	7.1	8.0	6.7	6.9	12
10	6.0	8.0	8.8	8.4	6.2	9.0	5.9	7.0	6.9	6.3	5.9	22
11	5.9	25	9.1	8.3	6.2	8.4	6.0	6.7	6.5	6.2	19	18
12	7.3	16	8.3	8.2	45	30	6.0	6.4	6.3	6.0	11	6.8
13	7.0	7.6	8.0	8.2	29	15	5.5	12	6.0	19	6.0	6.4
14	6.2	6.7	7.6	8.3	19	9.0	5.4	6.8	5.7	7.0	5.6	5.6
15	6.0	6.6	11	8.3	12	8.0	7.5	6.3	5.7	8.8	5.2	5.7
16	6.4	6.5	7.8	7.2	8.6	7.6	6.9	6.2	125	43	4.9	5.4
17	6.7	6.9	7.6	7.7	7.8	7.6	5.6	6.2	14	8.6	5.0	5.3
18	7.2	6.9	7.4	7.9	7.6	7.4	5.5	30	17	6.8	4.6	5.3
19	7.2	6.8	12	7.6	8.0	7.2	28	7.3	8.3	6.4	4.9	5.2
20	8.4	6.3	9.8	6.8	9.0	7.6	8.8	6.4	7.3	6.2	5.2	5.0
21	6.2	6.2	19	6.5	8.2	7.2	6.1	114	6.9	6.0	5.1	5.1
22	68	6.2	44	6.9	8.2	7.4	6.3	33	6.8	16	4.9	4.9
23	44	6.3	10	7.0	10	8.0	5.8	8.9	6.4	6.6	4.5	4.3
24	11	6.3	8.8	6.9	14	8.0	5.7	8.1	41	5.9	4.3	22
25	6.7	6.2	8.6	7.0	10	7.8	6.3	7.5	11	5.9	39	7.0
26	10	6.3	8.3	6.6	8.4	6.8	5.5	7.0	7.6	107	150	19
27	7.2	6.0	9.6	6.2	8.2	6.6	5.6	8.9	8.5	65	10	325
28	15	6.0	19	6.2	8.0	6.6	5.3	59	10	7.7	7.5	21
29	71	48	22	6.2	---	6.3	4.9	20	7.7	7.2	7.1	12
30	7.9	8.0	11	5.8	---	6.0	4.9	8.3	6.9	6.6	34	11
31	6.6	---	9.5	6.0	---	11	---	7.6	---	8.0	12	---
TOTAL	401.9	429.8	473.4	276.1	291.4	308.1	226.7	638.8	481.9	456.1	435.5	583.5
MEAN	13.0	14.3	15.3	8.91	10.4	9.94	7.56	20.6	16.1	14.7	14.0	19.4
MAX	71	162	84	30	45	30	28	175	125	107	150	325
MIN	5.1	5.9	6.7	5.8	5.8	6.0	4.9	4.9	5.7	5.9	4.3	4.3
CFSM	1.10	1.21	1.30	.76	.88	.84	.64	1.75	1.36	1.25	1.19	1.64
IN.	1.27	1.35	1.49	.87	.92	.97	.71	2.01	1.52	1.44	1.37	1.84

CAL YR 1984 TOTAL 9100.7 MEAN 24.9 MAX 614 MIN 4.7 CFSM 2.11 IN. 28.69
WTR YR 1985 TOTAL 5003.2 MEAN 13.7 MAX 325 MIN 4.3 CFSM 1.16 IN. 15.77

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, NJ. DRAINAGE AREA, 5.50 mi². 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 National Geodetic Vertical Datum of 1929.
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, 3,385,200,000 gal, June 18 and Sept. 28, elevation, 835.40 ft; minimum, 3,157,500,000 gal, Oct. 22, elevation, 834.25 ft.

01380900 BOONTON RESERVOIR.--Lat 40°53'. long 74°24', Morris County, Hydrologic Unit 02030103, at dam on Rockaway River at Boonton, NJ. DRAINAGE AREA, 119 mi². 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. GAGE, hook gage. Datum of gage is National Geodetic Vertical Datum of 1929.
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. Flow regulated by flashboards, 3 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, 8,244,000,000 gal, June 18, elevation, 307.65 ft; minimum, 5,345,500,000 gal, Sept. 26, elevation, 296.10 ft.
CORRECTION.--The reservoir elevation for the month of September and the change in contents for water year 1984 as published in WDR NJ-84-1 were found to be in error. The corrected figures follow: Sept. 30, elevation, 304.79 ft, contents, 7,500,000,000 gal, change in contents, -18.2 ft³/s, water year 1984 change in contents, +6.1 ft³/s.

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, NJ. DRAINAGE AREA, 5.6 mi². 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 National Geodetic Vertical Datum of 1929.
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, NJ. DRAINAGE AREA, 27.3 mi². 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 National Geodetic Vertical Datum of 1929.
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, NJ. DRAINAGE AREA, 10.5 mi². 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 National Geodetic Vertical Datum of 1929.
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 mi². PERIOD OF RECORD, May 1961 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
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 to 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.
REVISION.--WRD-NJ 1974: Station number.

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, NJ, and 1.9 mi upstream from mouth. DRAINAGE AREA, 4.35 mi². 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 National Geodetic Vertical Datum of 1929.

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 mi². 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 National Geodetic Vertical Datum of 1929 (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, 7,474,000,000 gal, Sept. 28, gage height, 10.99 ft; minimum, 6,154,000,000 gal, Oct. 1, gage height, 8.84 ft.

01386990 WANAQUE RESERVOIR.--Lat 41°02'33", long 74°17'36", Passaic County, Hydrologic Unit 02030103, at Raymond Dam on Wanaque River at Wanaque. DRAINAGE AREA, 90.4 mi². 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 National Geodetic Vertical Datum of 1929 (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 of spillway level, 27,210,000,000 gal elevation, 300.3 ft. Capacity available by gravity at spillway level, 26,230,000,000 gal. Outflow mostly controlled by sluice gates in intake conduits in gate house and flashboard prior 1985. Water is diverted from reservoir for municipal supply. Diversion to reservoir from Post Brook and Ramapo River (see Passaic River basin, diversions).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,284,000,000 gal, Apr. 5, 1984, elevation, 304.52 ft, revised; minimum, 5,110,000,000 gal, Dec. 26, 1964, elevation, 256.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 24,352,000,000 gal, Aug. 12, elevation, 295.26 ft; minimum, 13,745,000,000 gal, Feb. 12, elevation, 277.57 ft.

COOPERATION.--Records provided by North Jersey District Water Supply Commission.

REVISIONS.--The maximum contents for the 1984 water year has been revised to 31,284,000,000 gal, Apr. 5, elevation 304.52 ft. This figure supersedes that published in the 1984 report.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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)
	01379990 SPLITROCK RESERVOIR			01380900 BOONTON RESERVOIR			01382100 CANISTEAR RESERVOIR		
Sept. 30...	834.45	3,197	-	304.79	7,500	-	1,085.80	2,386	-
Oct. 31...	834.55	3,217	+1.0	303.15	7,075	-21.2	1,085.90	2,396	+0.5
Nov. 30...	834.55	3,217	0	301.64	6,698	-19.4	1,085.50	2,354	-2.2
Dec. 31...	835.15	3,336	+5.9	305.51	7,688	+49.4	1,081.80	1,981	-18.6
CAL YR 1984	-	-	-.1	-	-	-.3	-	-	-1.9
Jan. 31...	835.05	3,316	-1.0	304.36	7,389	-14.9	1,078.70	1,690	-14.5
Feb. 29...	835.20	3,346	+1.7	305.44	7,669	+15.5	1,081.10	1,915	+12.4
Mar. 31...	835.05	3,316	-1.5	306.94	8,059	+19.5	1,084.30	2,232	+15.8
Apr. 30...	835.00	3,306	-.5	304.02	7,300	-39.1	1,085.70	2,376	+7.4
May 31...	835.20	3,346	+2.0	307.27	8,145	+42.2	1,086.00	2,407	+1.6
June 30...	835.15	3,336	+.5	307.06	8,091	-2.8	1,086.00	2,407	0
July 31...	835.10	3,326	-.5	305.48	7,680	-20.5	10,86.10	2,417	+.5
Aug. 31...	834.85	3,276	-2.5	300.44	6,398	-64.0	1,086.00	2,407	-.5
Sept. 30...	835.20	3,346	+3.6	302.63	6,945	+28.2	1,086.10	2,417	+.5
WTR YR 1985	-	-	+.6	-	-	-2.4	-	-	+.1

RESERVOIRS IN PASSAIC RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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...	831.20	1,981	-	988.10	3,019	-	732.05	1,841	-
Oct. 31...	827.20	1,555	-21.3	978.00	1,844	-58.6	731.60	1,802	-2.0
Nov. 30...	817.60	758	-41.1	975.50	1,595	-12.8	731.60	1,802	0
Dec. 31...	815.00	594	-8.1	977.90	1,834	+11.9	731.55	1,798	-.2
CAL YR 1984	-	-	-12.4	-	-	-5.0	-	-	-3.7
Jan. 31...	813.90	535	-3.0	975.70	1,615	-11.0	730.15	1,679	-5.9
Feb. 29...	816.70	699	+9.1	974.30	1,482	-7.4	728.95	1,578	-5.6
Mar. 31...	817.30	738	+1.9	977.80	1,824	+17.1	727.95	1,496	-4.1
Apr. 30...	812.30	454	-14.6	977.20	1,764	-3.1	729.75	1,645	+7.7
May 31...	828.20	1,654	+59.9	981.30	2,197	+21.6	731.30	1,776	+6.5
June 30...	833.30	2,222	+29.3	983.30	2,410	+11.0	731.25	1,772	-.2
July 31...	837.40	2,733	+25.5	986.10	2,741	+16.5	729.75	1,645	-6.3
Aug. 31...	836.30	2,593	-7.0	987.20	2,891	+7.5	730.60	1,716	+3.6
Sept. 30...	838.10	2,823	+11.8	988.40	3,057	+8.6	734.40	2,054	+17.4
WTR YR 1985	-	-	+3.6	-	-	+.2	-	-	+.9

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Gage height (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			01386990 WANAQUE RESERVOIR		
Sept. 30...	892.60	1,546	-	8.86	6,166	-	295.03	24,190	-
Oct. 31...	892.50	1,537	-0.4	9.09	6,305	+6.9	291.18	21,590	-130
Nov. 30...	892.70	1,555	+.9	9.20	6,372	+3.5	286.31	18,530	-158
Dec. 31...	893.20	1,601	+2.3	10.10	6,922	+27.4	283.55	16,920	-80.4
CAL YR 1984	-	-	-.04	-	-	+8.8	-	-	-54.9
Jan. 31...	891.60	1,458	-7.1	e10.07	6,903	-.9	279.61	14,780	-107
Feb. 29...	890.40	1,353	-5.8	10.41	7,114	+11.7	279.47	14,720	-3.3
Mar. 31...	888.30	1,176	-8.8	10.14	6,947	-8.3	283.64	16,970	+112
Apr. 30...	886.70	1,046	-6.7	10.04	6,885	-3.2	283.67	16,990	+1.0
May 31...	888.60	1,203	+7.8	10.15	6,953	+3.4	289.70	20,630	+182
June 30...	889.80	1,303	+5.2	10.12	6,934	-1.0	293.26	22,980	+121
July 31...	891.00	1,404	+5.0	10.28	7,034	+5.0	294.84	24,060	+53.9
Aug. 31...	891.40	1,440	+1.8	10.09	6,916	-5.9	294.14	23,580	-24.0
Sept. 30...	893.10	1,592	+7.8	10.57	7,213	+15.3	294.41	23,770	+9.8
WTR YR 1985	-	-	+.2	-	-	+4.4	-	-	-1.8

e Gage height estimated.
* 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 Commonwealth Water Company diverts water from Passaic River, 1.2 mi upstream from Canoe Brook for municipal supply. Records provided by Commonwealth Water Company.

01379530 Commonwealth Water Company diverts water from Canoe Brook near Summit, 0.5 mi from mouth, for municipal supply. Records provided by Commonwealth 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.

01387991 Hackensack Water Company diverts water from the Ramapo River by pumping from Pompton Lake above the gaging station into Oradell Reservoir in the Hackensack River basin (see Hackensack River basin, diversions). Pumping began Feb. 14, 1985. Records provided by Hackensack Water Company.

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.

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 1984 TO SEPTEMBER 1985

MONTH	01379510 COMMONWEALTH WATER COMPANY FROM PASSAIC RIVER	01379530 COMMONWEALTH WATER COMPANY FROM CANOE BROOK	01380800 JERSEY CITY	01382370 NEWARK	01386980 FROM WANAQUE RESERVOIR	01387990 FROM RAMAPO RIVER TO WANAQUE RESERVOIR	01389490 PASSAIC VALLEY WATER COMMISSION
October.....	5.22	3.49	90.5	97.5	125	0	73.5
November.....	13.4	6.19	87.8	73.5	146	0	69.8
December.....	52.8	7.37	87.1	79.3	146	0	63.5
CAL YR 1984..	12.0	4.44	89.1	104	127	16.9	73.5
January.....	16.2	1.89	92.1	85.3	146	0	62.0
February.....	6.72	1.57	98.6	94.1	172	46.2	58.0
March.....	12.1	5.04	109	78.0	135	127	66.1
April.....	38.3	3.17	116	62.0	147	86.3	51.9
May.....	48.7	3.99	123	38.8	121	139	60.8
June.....	34.5	0	119	30.5	112	128	65.5
July.....	35.5	0	104	37.2	116	97.2	60.1
August.....	23.7	.96	115	34.6	127	67.2	67.1
September....	18.0	1.79	92.1	70.0	134	34.4	73.2
WTR YR 1985..	25.6	2.97	103	64.9	135	60.5	64.3

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 mi².

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, crest-stage gage, and concrete control. Datum of gage is National Geodetic Vertical Datum of 1929 (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).

REMARKS.--No estimated daily discharges. Records 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.

AVERAGE DISCHARGE.--64 years, 25.9 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,110 ft³/s, Aug. 28, 1971, gage height, 18.7 ft, from floodmark, site and datum then in use, from rating curve extended above 1,100 ft³/s on basis of contracted-opening measurement of peak flow; no flow many times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Elevation (ft)	Date	Time	Discharge (ft³/s)	Elevation (ft)
Sept. 27	1415	*1,120	*19.70	No peak greater than base discharge.			

Minimum, 4.2 ft³/s, Oct. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	8.4	8.1	16	38	9.3	73	8.1	64	7.1	13	7.0
2	25	8.5	6.8	39	26	8.7	12	40	8.1	7.1	9.6	5.7
3	8.9	6.6	43	13	11	7.9	10	315	15	31	7.7	6.5
4	7.5	5.5	17	12	9.7	23	9.5	32	15	7.7	6.7	7.0
5	7.2	76	9.6	32	9.5	27	8.7	13	144	8.0	7.2	6.7
6	5.9	30	104	11	10	10	8.7	10	24	16	7.6	7.0
7	4.8	14	22	11	10	9.5	7.1	10	11	14	8.6	6.0
8	5.8	11	12	10	9.3	16	9.3	9.1	23	7.5	58	24
9	6.6	9.6	9.0	9.4	8.3	9.5	8.8	8.7	9.0	7.6	9.7	23
10	6.4	9.4	9.3	10	10	8.0	8.7	8.7	8.1	7.4	7.5	22
11	6.4	56	9.4	9.4	11	8.9	9.3	7.9	7.9	7.3	6.5	15
12	6.1	26	9.0	8.7	186	72	8.4	7.3	8.0	6.8	6.9	6.6
13	5.4	11	8.8	7.8	44	15	7.6	15	7.2	23	7.1	6.0
14	4.5	9.2	8.4	8.3	19	11	6.8	8.9	6.9	10	7.4	5.0
15	5.3	8.8	17	8.9	14	9.6	20	9.2	6.6	21	7.7	4.6
16	6.2	8.8	8.0	8.6	11	8.8	21	8.5	182	45	7.1	5.4
17	6.0	7.7	8.0	8.9	9.7	7.8	10	8.5	23	9.6	5.7	5.6
18	6.2	7.2	8.3	9.9	9.8	8.0	8.4	47	34	7.5	5.4	5.8
19	6.4	9.5	21	8.8	11	8.3	26	8.8	9.9	7.3	7.0	5.7
20	8.5	7.9	11	7.2	11	9.7	12	8.0	8.2	6.8	6.6	5.5
21	4.7	7.6	39	11	11	8.3	7.5	96	7.6	6.0	9.8	4.8
22	13	7.0	52	9.9	11	8.4	7.9	55	6.7	32	6.6	4.9
23	61	6.8	10	9.8	11	12	7.5	13	6.3	8.2	6.6	6.3
24	25	6.7	8.5	9.6	10	7.2	7.5	9.8	82	6.9	6.2	78
25	9.6	6.3	13	9.7	10	7.2	8.0	8.1	19	6.7	59	8.7
26	18	7.0	8.2	8.0	11	7.2	7.7	6.8	9.9	206	118	54
27	7.7	7.4	11	7.5	10	8.0	7.1	6.5	11	168	14	290
28	5.7	7.7	42	8.2	9.5	8.1	6.6	31	16	24	9.0	50
29	45	36	28	8.7	---	12	7.0	19	8.9	12	7.7	18
30	18	11	11	8.5	---	7.6	7.3	8.9	7.9	10	64	10
31	9.9	---	13	9.2	---	12	---	8.3	---	19	15	---
TOTAL	413.7	434.6	585.4	350.0	551.8	386.0	359.4	846.1	790.2	756.5	518.9	704.8
MEAN	13.3	14.5	18.9	11.3	19.7	12.5	12.0	27.3	26.3	24.4	16.7	23.5
MAX	61	76	104	39	186	72	73	315	182	206	118	290
MIN	4.5	5.5	6.8	7.2	8.3	7.2	6.6	6.5	6.3	6.0	5.4	4.6

CAL YR 1984 TOTAL 12870.1 MEAN 35.2 MAX 801 MIN 4.5
WTR YR 1985 TOTAL 6697.4 MEAN 18.3 MAX 315 MIN 4.5

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT										
03...	1245	9.0	435	8.0	14.0	9.7	94	2.4	2400	130
JAN										
22...	1230	9.3	940	7.8	.0	14.0	96	4.2	<200	<200
MAR										
28...	1130	7.5	600	8.9	14.0	18.4	181	3.3	<200	<200
MAY										
16...	1200	8.4	730	7.8	19.0	7.8	85	20	>240000	17000
JUL										
09...	1230	7.2	565	8.3	24.0	10.6	127	1.3	3300	4900
AUG										
13...	1230	6.9	620	8.4	24.0	11.7	139	--	1300	1100

DATE	HARD-NESS (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									
03...	140	44	8.0	30	1.8	84	46	51	.10
JAN									
22...	230	70	13	85	2.0	127	62	160	.10
MAR									
28...	200	61	12	40	1.9	107	62	80	<.10
MAY									
16...	240	72	14	45	--	144	75	95	<.10
JUL									
09...	190	58	11	32	2.5	119	57	67	<.10
AUG									
13...	220	66	13	38	2.7	121	67	76	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
03...	10	240	.143	1.5	<.050	.54	2.0	.090	4.2
JAN									
22...	15	480	.039	2.5	.160	.69	3.2	.070	3.7
MAR									
28...	7.9	330	.048	1.8	<.050	.47	2.2	.060	3.9
MAY									
16...	12	--	.179	1.3	.140	3.1	4.4	.900	11
JUL									
09...	11	310	.042	1.0	.170	.38	1.4	.110	4.7
AUG									
13...	12	350	.035	1.6	.090	.42	2.0	.080	4.1

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 03...	1245	<.5	10	2	<10	110	2	20	1
MAY 16...	1200	<.5	30	2	<10	130	2	20	38

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)	PHENOLS TOTAL (UG/L)
OCT 03...	440	7	50	.3	9	<1	60	5
MAY 16...	1700	9	200	<.1	15	1	130	8

01393950 WEST BRANCH RAHWAY RIVER AT WEST ORANGE, NJ

LOCATION.--Lat 40°47'01", long 74°16'27", Essex County, Hydrologic Unit 02030104, at bridge on Mountain Avenue, 300 ft downstream of Turtle Brook, and 400 ft southeast of intersection with Pleasant Valley Way in West Orange.

DRAINAGE AREA.--2.52 mi².

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 03...	1030	.56	438	7.6	9.0	9.6	84	3.0	1700	1100
JAN 23...	1200	--	1770	7.5	.5	13.5	96	1.5	50	<20
MAR 27...	1230	.91	1070	8.0	8.0	14.2	122	1.2	<200	<200
MAY 30...	1045	.91	875	7.4	15.0	8.0	80	1.8	840	3500
JUL 08...	1145	.56	740	7.6	20.0	8.1	91	3.0	1300	330
AUG 19...	1245	--	792	7.9	21.0	7.5	85	5.4	460	2400

DATE	HARD-NESS (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 03...	130	33	12	32	1.6	49	30	87	<.10
JAN 23...	270	67	25	240	1.9	68	36	480	<.10
MAR 27...	260	65	24	100	1.4	66	37	270	<.10
MAY 30...	230	58	20	78	1.5	68	34	220	<.10
JUL 08...	220	56	20	53	1.7	81	33	160	<.10
AUG 19...	210	51	20	66	1.7	80	40	170	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 03...	10	230	.012	.65	<.050	.48	1.1	.050	2.9
JAN 23...	17	910	.010	1.5	<.050	.40	1.9	.030	2.4
MAR 27...	14	550	.012	1.0	<.050	.45	1.5	.030	2.9
MAY 30...	16	470	.023	1.0	.210	.51	1.5	.060	4.6
JUL 08...	15	390	.015	.86	.160	.42	1.3	.060	5.1
AUG 19...	8.7	410	.013	.31	.110	.65	.96	.060	4.7

01393950 WEST BRANCH RAHWAY RIVER AT WEST ORANGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 03...	1030	<.5	.4	13	<10	1	<1	<10	60	2	<1
MAY 30...	1045	<.5	--	--	10	<1	--	<10	130	<1	--

DATE	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)	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)
OCT 03...	<10	20	<10	3	17	290	7900	5	80	30	210
MAY 30...	--	--	--	<1	--	500	--	10	--	60	--

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 03...	.3	<.01	<1	10	<1	<1	20	110	<1	28	<1.0
MAY 30...	<.1	--	4	--	<1	--	50	--	1	--	--

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 03...	<.1	79	20	3.6	9.1	<.1	2.2	<.1	<.1	<.1	<.1
MAY 30...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 03...	1.4	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
MAY 30...	--	--	--	--	--	--	--	--	--	--	--

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 mi².

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 and concrete control. Datum of gage is 66.17 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those above 50 ft³/s, 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. Gage-height telemeter at station.

AVERAGE DISCHARGE.--47 years, 28.7 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft³/s, Aug. 2, 1973, gage height, 9.76 ft, from floodmark, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow; minimum, 0.1 ft³/s, Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1345	*1,410	*6.39	No other peak greater than base discharge.			

Minimum discharge, 1.4 ft³/s, Nov. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	7.6	7.2	14	24	10	50	6.4	46	6.0	8.7	5.2
2	19	10	6.4	38	17	11	7.9	27	6.1	6.0	5.2	4.8
3	4.7	9.1	61	20	8.5	9.7	7.5	310	6.0	18	4.8	5.1
4	4.4	139	13	11	6.5	16	7.3	42	6.0	5.6	4.9	5.0
5	4.4	177	8.1	22	5.9	28	6.9	14	120	6.1	5.1	5.2
6	4.4	13	169	11	6.9	13	7.3	10	17	11	4.8	5.2
7	4.3	9.9	33	10	9.5	11	6.4	8.6	7.8	18	6.5	5.2
8	4.6	10	13	9.6	6.4	14	7.2	7.4	16	5.2	46	24
9	5.1	9.8	10	7.6	6.0	11	6.5	7.2	6.9	5.8	5.4	16
10	5.2	9.8	9.5	7.6	6.7	9.7	6.4	7.0	6.2	5.2	5.0	22
11	4.9	60	8.8	7.8	7.9	9.9	7.5	7.0	5.8	5.2	5.1	15
12	4.9	4.6	8.7	7.4	185	73	7.5	6.6	5.2	5.5	5.6	3.8
13	5.9	2.1	8.6	7.1	101	21	6.6	10	5.4	26	5.2	3.9
14	9.1	2.1	8.3	7.2	26	12	6.8	5.8	5.4	5.8	5.6	4.1
15	13	4.8	13	7.3	15	11	9.8	5.2	5.6	9.3	6.0	4.1
16	14	5.3	7.5	6.2	12	11	8.2	5.4	204	33	6.3	4.1
17	15	5.1	7.6	6.8	11	10	6.7	5.9	37	9.5	5.5	4.3
18	15	5.5	7.6	7.3	11	10	6.5	81	33	5.2	5.7	4.3
19	15	6.3	15	7.4	12	9.3	18	7.1	8.7	5.1	7.4	4.3
20	14	4.9	11	6.2	11	9.3	9.4	6.9	6.9	5.2	8.2	4.2
21	12	5.4	30	6.2	10	10	6.2	57	6.3	5.5	8.3	4.3
22	207	5.2	70	6.1	12	9.4	6.6	85	5.9	29	5.6	4.1
23	14	5.0	16	6.3	26	13	6.8	11	6.1	5.5	5.4	4.6
24	8.2	5.1	10	6.3	26	8.6	6.7	7.7	81	5.0	4.9	49
25	13	4.8	12	6.3	18	8.0	6.8	6.4	12	5.0	61	5.0
26	14	4.8	8.6	6.3	13	7.8	6.6	6.1	5.8	195	221	42
27	9.0	4.8	10	6.0	10	8.7	6.1	6.6	6.2	253	13	675
28	136	4.9	25	5.8	10	9.7	5.9	17	11	11	6.6	58
29	14	72	37	5.8	---	8.7	6.1	15	8.4	7.2	5.7	10
30	9.0	8.0	17	5.9	---	8.1	6.1	6.0	6.8	6.1	70	7.5
31	7.8	---	12	6.0	---	12	---	5.9	---	11	12	---
TOTAL	644.9	615.9	673.9	288.5	614.3	413.9	264.3	804.2	704.5	730.0	570.5	1009.3
MEAN	20.8	20.5	21.7	9.31	21.9	13.4	8.81	25.9	23.5	23.5	18.4	33.6
MAX	207	177	169	38	185	73	50	310	204	253	221	675
MIN	4.3	2.1	6.4	5.8	5.9	7.8	5.9	5.2	5.2	5.0	4.8	3.8

CAL YR 1984 TOTAL 16129.7 MEAN 44.1 MAX 1300 MIN 2.1
WTR YR 1985 TOTAL 7334.2 MEAN 20.1 MAX 675 MIN 2.1

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 01...	1245	27	392	7.7	13.0	9.8	93	6.9	>24000	>24000
JAN 23...	1015	6.3	990	7.6	.0	12.7	87	1.5	170	20
MAR 27...	1000	8.7	610	8.0	6.0	11.8	95	1.5	<200	<200
MAY 30...	1300	6.3	405	7.5	17.0	4.5	47	2.7	1100	790
JUL 08...	1030	4.8	338	7.6	21.0	4.0	45	3.9	3500	1300
AUG 19...	1100	7.6	592	7.8	21.0	5.6	63	4.5	<200	200

DATE	HARD-NESS (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 01...	140	42	7.4	24	1.8	85	29	48	.10
JAN 23...	220	68	13	98	2.0	161	45	180	<.10
MAR 27...	190	57	11	42	1.5	111	41	90	<.10
MAY 30...	130	42	7.3	28	1.8	86	26	52	.10
JUL 08...	120	36	6.8	20	2.1	83	24	35	.20
AUG 19...	200	61	12	33	1.9	121	38	82	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 01...	9.3	210	.025	1.5	.090	.55	2.0	.140	4.1
JAN 23...	16	520	.017	2.5	<.050	.42	2.9	.040	2.5
MAR 27...	6.5	320	.034	1.4	<.050	.45	1.9	.060	3.2
MAY 30...	11	220	.053	1.1	.410	.87	1.9	.160	6.2
JUL 08...	8.8	180	.036	.94	.180	.76	1.7	.140	6.5
AUG 19...	11	310	.012	1.4	.110	.52	1.9	.110	2.2

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 01...	1245	--	1.0	4.1	--	--	<1	--	--	--	<1
MAY 30...	1300	<.5	--	--	10	2	--	<10	40	1	--

DATE	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)	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)
OCT 01...	--	50	<10	--	280	--	13000	--	1700	--	300
MAY 30...	10	--	--	4	--	510	--	2	--	100	--

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 01...	--	<.01	--	80	--	<1	--	1100	--	48	<1.0
MAY 30...	<.1	--	3	--	<1	--	30	--	2	--	--

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 01...	<.1	22	2.8	2.9	7.5	<.1	1.0	<.1	<.1	<.1	<.1
MAY 30...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 01...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
MAY 30...	--	--	--	--	--	--	--	--	--	--	--

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 mi².

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 National Geodetic Vertical Datum of 1929. 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.--Estimated daily discharges: Jan. 17 to Feb. 11. Records fair except those for period of no gage-height record, Jan. 17 to Feb. 11, which are poor. 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.

AVERAGE DISCHARGE.--64 years (water years 1922-85), 47.2 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,420 ft³/s, Aug. 2, 1973, gage height, 7.88 ft, from rating curve extended above 3,000 ft³/s; no flow part or all of some days in many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 5	1315	674	3.32	July 27	0215	916	3.71
May 3	1115	807	3.54	Sept. 27	1315	*1,700	*4.91

Minimum daily discharge, 1.00 ft³/s, Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	6.7	11	20	9.4	11	84	3.5	72	18	37	6.6
2	48	6.4	7.6	47	22	10	13	19	10	5.7	7.8	4.0
3	8.8	1.3	47	35	7.1	9.1	6.7	518	5.2	14	6.0	2.3
4	5.1	1.5	67	18	6.1	10	7.9	156	6.0	3.3	4.8	2.8
5	3.2	432	13	31	5.7	45	7.3	24	197	3.4	2.5	2.0
6	4.9	132	281	21	5.7	15	6.5	15	78	3.4	2.9	1.6
7	3.6	16	83	14	5.5	11	6.1	13	15	20	2.5	1.8
8	3.1	9.5	21	15	5.3	14	5.7	10	26	23	76	4.8
9	4.0	8.3	14	9.4	5.1	13	5.6	7.8	20	5.4	13	26
10	5.3	1.6	12	8.6	5.0	8.1	5.2	6.5	7.4	3.8	3.9	35
11	4.5	68	9.7	10	9.0	7.9	5.0	5.8	6.3	3.4	2.6	56
12	4.4	83	9.0	10	190	89	5.7	3.1	21	2.6	1.6	5.8
13	3.8	13	9.4	9.5	281	32	5.2	4.7	12	5.5	1.3	12
14	3.1	8.7	8.5	7.3	41	14	4.3	4.8	3.7	5.4	1.5	2.9
15	2.3	7.2	16	8.0	25	11	6.2	3.1	2.1	9.7	1.3	2.1
16	2.6	9.1	11	5.9	18	9.6	10	3.2	244	44	1.2	2.0
17	2.7	8.3	8.3	5.1	15	9.1	8.1	3.5	113	18	1.2	1.7
18	2.7	7.5	8.2	5.2	15	7.5	5.6	77	63	3.3	1.8	1.6
19	3.5	8.0	10	5.2	15	8.4	12	11	22	2.4	2.0	1.4
20	3.8	8.2	22	4.9	16	9.4	23	3.6	8.7	2.2	1.3	1.1
21	5.7	9.3	15	4.5	13	8.5	6.4	37	6.7	2.0	2.2	1.0
22	36	8.5	115	4.6	13	7.6	4.3	205	3.2	36	1.6	1.2
23	354	6.4	25	4.7	24	12	4.4	25	3.2	5.8	1.6	1.4
24	32	5.9	14	4.8	31	10	4.8	13	86	2.0	1.6	55
25	11	6.1	18	4.9	21	6.7	4.4	9.2	79	2.7	63	22
26	8.8	4.9	11	5.0	17	7.0	4.5	6.6	9.3	244	322	42
27	1.6	6.1	15	4.8	14	8.4	4.5	5.8	6.3	551	54	813
28	16	5.5	30	4.8	9.8	8.1	3.7	17	11	58	11	569
29	294	124	68	4.7	---	10	3.7	52	7.1	13	5.8	40
30	21	20	30	4.7	---	6.9	3.6	8.8	18	12	16	13
31	8.7	---	17	5.0	---	12	---	6.9	---	17	70	---
TOTAL	940.2	1033.0	1026.7	342.6	844.7	441.3	277.4	1278.9	1162.2	1140.0	721.0	1731.1
MEAN	30.3	34.4	33.1	11.1	30.2	14.2	9.25	41.3	38.7	36.8	23.3	57.7
MAX	354	432	281	47	281	89	84	518	244	551	322	813
MIN	1.6	1.3	7.6	4.5	5.0	6.7	3.6	3.1	2.1	2.0	1.2	1.0

CAL YR 1984 TOTAL 23962.2 MEAN 65.5 MAX 1610 MIN 1.3
WTR YR 1985 TOTAL 10939.1 MEAN 30.0 MAX 813 MIN 1.0

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 and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 01...	1045	10	398	7.9	14.0	9.2	90	4.2	3500	3500
JAN 22...	1030	7.8	780	7.9	.0	14.0	96	3.3	50	60
MAR 28...	0945	8.4	535	8.7	10.5	13.2	119	4.8	<20	50
MAY 16...	1015	3.2	520	7.9	17.5	6.6	69	3.9	110	490
JUL 09...	1015	5.2	418	7.9	22.0	7.4	86	2.1	790	490
AUG 13...	1045	1.3	385	7.4	22.0	3.9	44	--	700	1300

DATE	HARD-NESS (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 01...	150	48	8.4	20	1.8	98	39	37	.10
JAN 22...	210	64	12	74	1.7	123	51	130	.10
MAR 28...	180	55	11	35	1.4	111	47	70	<.10
MAY 16...	190	57	11	30	2.0	118	45	64	<.10
JUL 09...	150	46	8.4	22	2.0	98	35	45	.10
AUG 13...	130	39	7.3	21	2.0	83	28	40	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 01...	9.4	220	.017	.93	<.050	.49	1.4	.090	3.4
JAN 22...	13	420	.011	1.8	.060	.44	2.3	.050	3.3
MAR 28...	3.8	290	.018	.50	<.050	.75	1.3	.100	3.9
MAY 16...	8.6	290	.024	.54	.140	.85	1.4	.100	4.6
JUL 09...	7.8	230	.019	.61	.120	.62	1.2	.090	--
AUG 13...	6.2	190	.017	.44	.120	.58	1.0	.100	5.6

01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 01...	1045	<.5	<10	2	<10	70	2	<10	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)	PHENOLS TOTAL (UG/L)
OCT 01...	530	10	120	.4	3	<1	40	8

01396001 ROBINSONS BRANCH RAHWAY RIVER AT MAPLE AVENUE, AT RAHWAY, NJ

LOCATION.--Lat 40°36'26", long 74°17'40", Union County, Hydrologic Unit 02030104, on right upstream abutment of bridge on Maple Avenue in Rahway, 2,000 ft downstream from Milton Lake, 1.0 mi downstream from Middlesex Reservoir dam, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--21.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1939 to current year. Prior to October 1978, published as "Robinsons Branch Rahway River at Rahway, NJ" (sta 01396000).

REVISED RECORDS.--WDR-NJ-75-1: 1973(P).

GAGE.--Water-stage recorder. Datum of gage is 11.3 ft above National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to Sept. 26, 1978, water-stage recorder above Milton Dam at datum 8.69 ft higher.

REMARKS.--Estimated daily discharges: Jan. 9-11, Jan. 17-31, and Feb. 4-11. Records good except those below 10 ft^3/s and for periods of no gage-height record, Jan. 9-11, Jan. 17-31, and Feb. 4-11, which are fair. Water diverted for municipal supply by Middlesex Water Co., from Middlesex Reservoir, capacity, 89,000,000 gal, 1.0 mi above station. No diversion during the year. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years, 25.5 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,110 ft^3/s, July 15, 1975, gage height, 5.85 ft, from rating curve extended above 750 ft^3/s on basis of flow-over-dam computation, site and datum then in use; maximum gage height, 6.02 ft, Aug. 15, 1969, site and datum then in use; no flow many times.

EXTREMES 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)
Nov. 5	0800	465	3.05	July 27	0115	459	3.03
May 3	1030	503	3.18	Sept. 27	1230	*1,260	*5.90

Minimum discharge, 2.7 ft^3/s, Oct. 8, 9, 10, 11, 12, gage height, 0.68 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	13	8.2	12	11	6.3	66	1.9	26	9.6	21	1.2
2	25	16	6.2	34	22	7.5	15	10	5.7	3.7	5.2	1.1
3	5.8	13	25	26	11	4.7	6.9	291	2.9	3.4	3.1	1.3
4	2.6	12	23	11	6.3	7.4	5.7	116	2.5	2.5	2.6	1.4
5	2.0	197	8.2	24	5.6	28	4.6	19	109	3.6	2.5	1.7
6	1.8	52	181	13	6.3	18	5.8	8.7	47	4.0	1.9	1.7
7	1.9	7.7	71	8.8	5.5	10	4.2	6.5	8.3	3.6	1.8	1.4
8	2.0	4.6	15	10	5.2	12	4.2	4.7	15	2.0	30	1.9
9	2.8	4.1	8.2	7.1	4.3	10	4.2	2.6	10	1.6	10	4.5
10	3.8	4.1	7.0	6.3	4.7	7.3	2.7	2.8	5.1	1.9	3.9	35
11	2.7	41	7.1	5.7	5.4	6.4	2.7	2.7	3.2	6.6	2.7	35
12	2.4	44	6.5	5.7	138	48	3.4	2.7	3.2	2.0	2.1	5.8
13	2.6	12	6.3	4.6	168	22	2.9	2.6	2.9	4.4	2.0	1.9
14	3.4	6.4	5.3	4.9	41	12	3.0	2.3	1.9	3.5	1.7	1.1
15	2.2	5.4	7.7	5.6	23	9.0	4.5	1.4	1.6	3.1	2.0	.49
16	2.0	6.7	6.3	5.1	16	4.1	7.4	1.3	76	36	1.8	.09
17	2.7	5.5	5.5	4.6	12	6.4	5.5	1.6	34	19	1.6	.00
18	3.5	5.3	5.4	4.8	11	6.3	2.0	29	12	4.6	1.3	.00
19	5.1	7.1	5.6	5.0	13	2.7	4.9	7.3	5.9	2.0	1.2	.00
20	6.6	6.1	7.0	5.0	14	4.7	16	2.2	3.3	1.4	1.3	.00
21	7.3	4.9	14	4.1	10	4.4	7.7	34	2.8	1.3	2.4	.56
22	25	4.4	66	3.5	11	2.9	4.2	121	2.5	20	3.6	.57
23	133	5.1	19	3.5	18	7.3	3.2	19	2.3	6.9	1.7	.96
24	25	5.2	8.9	3.7	17	7.1	2.7	7.9	44	2.3	1.7	30
25	12	4.9	12	4.5	13	7.2	3.3	5.3	19	1.9	41	14
26	16	4.9	6.4	4.7	11	3.1	3.5	4.0	4.8	125	100	20
27	19	5.1	7.4	4.1	13	2.7	3.9	3.0	2.5	188	14	449
28	15	5.2	21	3.9	6.4	4.5	2.4	7.7	2.6	25	3.1	215
29	136	64	53	4.0	---	7.4	2.7	28	9.1	6.9	1.8	54
30	30	17	28	3.9	---	5.3	1.7	5.2	53	4.1	1.6	16
31	17	---	11	4.3	---	4.4	---	3.2	---	14	1.6	---
TOTAL	534.2	583.7	662.2	247.4	622.7	289.1	206.9	754.6	518.1	513.9	272.2	895.67
MEAN	17.2	19.5	21.4	7.98	22.2	9.33	6.90	24.3	17.3	16.6	8.78	29.9
MAX	136	197	181	34	168	48	66	291	109	188	100	449
MIN	1.8	4.1	5.3	3.5	4.3	2.7	1.7	1.3	1.6	1.3	1.2	.00

CAL YR 1984 TOTAL 14298.8 MEAN 39.1 MAX 816 MIN 1.8
WTR YR 1985 TOTAL 6100.67 MEAN 16.7 MAX 449 MIN .00

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 mi².

WATER-QUALITY RECORDS

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 02...	1045	70	228	8.2	11.0	10.9	100	E2.0	700	110
JAN 23...	1030	38	241	8.0	.0	13.0	91	E.8	50	17
MAR 20...	1015	52	213	7.9	5.5	12.7	103	2.9	20	<2
JUN 04...	1030	--	205	7.6	17.0	9.8	--	E1.6	80	540
JUL 01...	1045	37	230	8.3	17.0	11.0	115	2.8	170	920
AUG 06...	1100	37	216	8.3	18.5	10.1	109	<1.0	330	1600

DATE	HARD-NESS (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 02...	86	19	9.4	10	1.5	68	11	14	<.10
JAN 23...	87	19	9.5	13	1.3	65	12	23	<.10
MAR 20...	73	16	8.0	11	1.2	56	12	22	<.10
JUN 04...	75	17	8.0	12	1.2	59	11	21	<.10
JUL 01...	87	19	9.6	11	1.3	70	10	21	.10
AUG 06...	98	21	11	12	1.3	80	13	20	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 02...	12	120	.022	1.8	<.050	<.05	--	.160	1.7
JAN 23...	13	130	.024	2.1	.180	.44	2.6	.160	1.7
MAR 20...	11	110	.021	1.6	.180	.27	1.9	.150	3.0
JUN 04...	11	120	.032	1.5	.110	.49	2.0	.180	3.5
JUL 01...	10	120	.041	1.9	.170	.21	2.1	.160	6.1
AUG 06...	10	140	.017	1.7	.100	.64	2.3	.250	2.8

01396280 SOUTH BRANCH RARITAN RIVER AT MIDDLE VALLEY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 02...	1045	<.5	10	2	<10	20	1	10	9
JUN 04...	1030	<.5	20	2	<10	20	1	10	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)	PHENOLS TOTAL (UG/L)
OCT 02...	340	3	20	<.1	<1	<1	10	<1
JUN 04...	270	5	40	<.1	3	<1	60	<1

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 mi².

WATER-DISCHARGE RECORDS

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: 1(M), 1920(M), 1921, 1923, 1924(M), 1927-28(M), 1934(M), 1941(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 28, 1930. Datum of gage is 282.10 ft above National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark). Prior to Sept. 30, 1921, reference point at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 13, Mar. 26, 27, Apr. 22-24 and Sept. 27, 28. Records good except those below 30 ft³/s and for period of ice effect, Jan. 9 to Feb. 13, and periods of no gage-height record, Mar. 26, 27, Apr. 22-24, and Sept. 27, 28, which are fair. Several measurements of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--67 years, 122 ft³/s, 25.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,910 ft³/s, Jan. 25, 1979, gage height, 12.07 ft; maximum height, 12.23 ft, Feb. 24, 1979 (ice jam); minimum discharge, 6.6 ft³/s, Oct. 11, 1930; minimum daily, 13 ft³/s, Aug. 11, 1966.

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 ft³/s, 3,840 ft³/s, and 2,670 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	Unknown	*1,710	a*9.2	No other peak greater than base discharge.			

a From high-water mark.

Minimum discharge, 35 ft³/s, Aug. 24, gage height, 5.77 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	61	73	97	98	105	126	54	138	58	76	58
2	76	60	64	139	120	102	96	73	93	56	60	49
3	63	59	84	145	102	95	83	634	74	73	54	46
4	54	56	144	105	87	92	83	258	73	67	51	44
5	52	95	83	100	76	144	78	160	137	57	50	42
6	51	85	169	87	81	119	78	129	136	64	48	41
7	50	67	140	88	79	94	80	116	85	69	47	40
8	50	60	87	87	71	98	75	104	79	57	68	41
9	51	57	77	83	67	98	74	92	82	53	61	54
10	51	59	77	81	66	89	70	90	74	52	50	71
11	50	59	87	80	64	86	69	85	66	50	47	82
12	49	64	81	82	135	164	68	80	65	48	48	49
13	48	58	73	78	345	145	68	79	64	62	46	43
14	48	54	69	76	165	108	65	75	59	56	45	40
15	48	52	72	73	120	98	66	70	57	88	43	40
16	48	53	72	68	100	90	67	69	249	70	41	39
17	47	52	70	69	91	90	67	89	209	61	41	39
18	48	52	68	69	87	85	63	385	150	51	40	38
19	48	53	71	68	87	79	64	167	106	48	40	37
20	49	52	93	66	92	81	75	109	81	47	41	37
21	49	50	80	63	88	82	70	113	73	46	41	37
22	70	50	233	64	98	78	65	161	68	75	40	37
23	287	49	132	65	224	84	64	107	65	59	39	37
24	104	50	97	66	245	87	62	97	74	47	38	38
25	78	50	90	68	195	81	62	84	90	46	53	39
26	76	50	80	66	140	78	63	78	69	145	94	39
27	76	49	80	64	128	73	59	74	62	372	60	732
28	68	49	86	65	114	74	57	76	62	94	47	387
29	91	148	152	64	---	77	56	77	66	69	43	135
30	74	101	133	63	---	73	56	70	62	62	46	97
31	66	---	96	64	---	76	---	67	---	64	123	---
TOTAL	2075	1854	3013	2453	3365	2925	2129	3922	2768	2266	1621	2508
MEAN	66.9	61.8	97.2	79.1	120	94.4	71.0	127	92.3	73.1	52.3	83.6
MAX	287	148	233	145	345	164	126	634	249	372	123	732
MIN	47	49	64	63	64	73	56	54	57	46	38	37
CFSM	1.02	.95	1.49	1.21	1.84	1.45	1.09	1.94	1.41	1.12	.80	1.28
IN.	1.18	1.06	1.72	1.40	1.92	1.67	1.21	2.23	1.58	1.29	.92	1.43

CAL YR 1984 TOTAL 66524 MEAN 182 MAX 2980 MIN 46 CFSM 2.79 IN. 37.90
WTR YR 1985 TOTAL 30899 MEAN 84.7 MAX 732 MIN 37 CFSM 1.30 IN. 17.60

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 mi².

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 02...	1200	E81	246	8.4	11.5	10.3	96	E1.6	170	920
JAN 23...	1230	E124	261	8.2	.0	15.2	106	E1.1	<20	<2
MAR 20...	1145	E61	217	8.2	6.0	13.6	110	E1.3	50	<2
JUN 04...	1200	E59	224	7.7	19.5	9.9	108	E1.8	170	540
JUL 01...	1200	E53	224	8.3	19.5	9.9	108	E2.2	80	1600
AUG 06...	1230	E92	192	8.5	21.0	9.6	109	<.8	20	350

DATE	HARD-NESS (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 02...	98	21	11	8.4	1.4	81	13	10	<.10
JAN 23...	98	21	11	13	1.4	74	14	23	<.10
MAR 20...	78	17	8.6	10	1.1	60	13	18	<.10
JUN 04...	73	16	8.1	9.5	1.3	60	13	18	<.10
JUL 01...	90	20	9.8	9.7	1.2	71	15	18	.10
AUG 06...	98	21	11	9.3	2.5	80	11	16	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 02...	11	120	.012	1.8	<.050	.10	1.9	.090	1.2
JAN 23...	14	140	.023	2.2	.110	.12	2.3	.140	1.7
MAR 20...	10	110	.014	1.4	.070	.60	2.0	.090	2.1
JUN 04...	11	110	.020	1.3	.130	.43	1.7	.120	3.4
JUL 01...	9.4	130	.140	1.4	.200	.28	1.6	.100	4.1
AUG 06...	9.2	130	.013	1.2	.080	.38	1.6	.100	2.6

01396535 SOUTH BRANCH RARITAN RIVER AT ARCH STREET AT HIGH BRIDGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT 02...	1200	<.5	<10	1	<10	<20	<1	<10	2
JUN 04...	1200	<.5	20	2	<10	30	2	10	7

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT 02...	250	5	30	<.1	<1	<1	10	<1
JUN 04...	310	2	60	<.1	7	<1	70	6

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1978 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 389.10 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 10 to Feb. 11. Records fair except those for periods of no gage-height record, Jan. 8-13, and Jan. 16 to Feb. 11, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 20.7 ft³/s, 22.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft³/s, Jan. 24, 1979, gage height, 7.60 ft, from high-water mark, from rating curve extended above 700 ft³/s on basis of slope-conveyance computation; minimum, 1.1 ft³/s, Oct. 1, 1982, minimum gage height, 1.76 ft, Sept. 8, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 22	2215	687	4.32	July 26	2330	1,160	5.04
Feb. 12	1615	726	4.37	Sept. 27	1145	*1,270	*5.36

Minimum discharge, 3.3 ft³/s, Sept. 17, 18, 19, 20, 21, 22; minimum gage height, 2.00 ft, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	4.8	5.5	13	6.2	14	24	6.2	23	6.6	12	4.3
2	28	4.9	4.8	29	11	14	14	20	9.4	6.1	8.1	4.1
3	12	4.7	17	19	8.4	12	12	246	7.9	12	7.1	4.1
4	10	4.5	13	13	6.3	12	12	33	7.3	7.2	6.6	3.9
5	8.8	11	6.7	13	4.8	28	11	20	23	6.2	6.2	3.8
6	8.1	7.3	41	12	5.1	16	12	15	14	14	5.9	3.7
7	6.5	5.4	15	11	4.9	13	11	14	8.8	11	5.8	3.7
8	3.6	4.8	8.2	12	4.7	14	10	12	10	7.3	10	3.9
9	3.9	4.7	6.5	10	6.5	13	9.7	10	9.7	6.6	6.2	4.7
10	3.9	5.2	7.4	9.5	6.3	12	8.9	9.7	8.0	6.1	5.8	8.2
11	3.9	5.2	9.3	8.7	5.1	11	9.0	8.8	6.7	5.9	5.6	9.6
12	3.9	5.5	7.0	8.6	184	46	8.7	8.3	6.6	5.6	5.3	4.1
13	4.0	4.8	5.9	7.7	70	24	8.3	8.1	6.4	11	4.9	3.8
14	4.2	4.4	5.5	7.8	18	17	8.1	7.4	5.9	6.8	5.2	3.6
15	4.2	4.4	6.3	7.6	11	14	8.4	6.5	5.9	8.0	4.9	3.5
16	4.2	4.6	5.9	6.5	10	13	8.6	6.7	93	7.8	4.7	3.4
17	4.4	4.5	5.7	6.8	9.1	13	7.9	31	30	5.9	4.6	3.4
18	4.6	4.5	5.6	7.2	7.5	12	7.4	131	25	5.4	4.4	3.4
19	4.8	4.8	7.6	7.4	8.9	11	8.8	22	14	5.1	4.6	3.4
20	5.2	4.5	10	6.7	9.3	11	13	15	9.8	5.0	4.4	3.3
21	5.3	4.4	8.5	7.1	9.1	10	10	18	9.4	4.9	4.4	3.3
22	61	4.4	57	8.4	15	9.9	8.7	24	8.2	8.1	4.4	3.3
23	57	4.4	16	8.1	55	13	8.4	14	7.7	5.3	4.2	3.4
24	8.9	4.4	11	7.3	41	12	9.1	13	15	4.9	4.1	3.6
25	5.9	4.4	11	6.9	27	11	8.4	11	12	4.9	9.5	3.6
26	6.6	4.3	9.2	5.8	20	9.9	8.1	9.6	7.6	94	14	3.8
27	6.1	4.3	10	4.8	19	9.9	7.2	9.2	6.9	165	5.3	358
28	5.4	4.4	12	4.5	15	9.9	6.8	8.8	7.6	19	4.5	26
29	9.2	21	35	4.6	---	11	6.6	8.8	8.0	13	4.2	12
30	6.2	7.5	20	4.2	---	10	6.2	7.6	7.0	11	4.8	9.4
31	5.2	---	13	4.1	---	11	---	7.4	---	12	5.0	---
TOTAL	320.0	168.0	396.6	282.3	598.2	437.6	292.3	762.1	413.8	491.7	186.7	512.3
MEAN	10.3	5.60	12.8	9.11	21.4	14.1	9.74	24.6	13.8	15.9	6.02	17.1
MAX	61	21	57	29	184	46	24	246	93	165	14	358
MIN	3.6	4.3	4.8	4.1	4.7	9.9	6.2	6.2	5.9	4.9	4.1	3.3
CFSM	.84	.46	1.04	.74	1.74	1.15	.79	2.00	1.12	1.29	.49	1.39
IN.	.97	.51	1.20	.85	1.81	1.32	.88	2.30	1.25	1.49	.56	1.55

CAL YR 1984 TOTAL 10480.3 MEAN 28.6 MAX 503 MIN 3.6 CFSM 2.33 IN. 31.70
WTR YR 1985 TOTAL 4861.6 MEAN 13.3 MAX 358 MIN 3.3 CFSM 1.08 IN. 14.70

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 mi².

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses provided by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 29...	0940	E6.5	152	7.1	.0	14.2	97	E2.1	20	140
MAR 25...	1150	E16	149	7.6	6.0	13.5	109	<1.1	80	<2
MAY 21...	0930	E23	152	7.0	14.0	10.2	100	<.3	1300	540
JUL 10...	0945	E8.6	180	6.5	19.0	10.4	114	<1.2	230	240
AUG 20...	0945	E6.4	153	6.5	19.0	9.8	107	<.9	330	>2400

DATE	HARD-NESS (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 29...	51	12	5.2	8.6	1.1	29	20	13	<.10
MAR 25...	50	12	4.8	8.8	.90	25	22	14	.10
MAY 21...	52	13	4.8	8.6	1.2	28	22	16	.20
JUL 10...	58	14	5.5	9.6	1.7	36	21	14	<.10
AUG 20...	61	15	5.7	9.4	1.4	38	19	13	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 29...	17	94	.004	1.4	<.050	.16	1.6	.050	1.3
MAR 25...	15	93	.007	.92	.100	.21	1.1	.060	2.2
MAY 21...	16	99	.005	1.1	.120	.27	1.4	.040	2.2
JUL 10...	17	100	.006	1.1	.120	.43	1.5	.050	1.8
AUG 20...	16	100	.004	1.0	.050	.22	1.3	.070	4.8

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY 21...	0930	<.5	20	<1	<10	<20	1	10	9

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY 21...	150	4	20	<.1	1	<1	<10	6

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1973-77. July 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 280.25 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 20 to Feb. 11 and Sept. 1-9. Records good except those for period of ice effect, Jan. 20 to Feb. 11 and period of no gage-height record, Sept. 1-9, which are poor. Several measurements of water temperature, other than those published, were made during the year.

AVERAGE DISCHARGE.--8 years, 21.0 ft³/s, 24.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft³/s, Jan. 24, 1979, gage height, 6.48 ft, from rating curve extended above 200 ft³/s; minimum, 1.1 ft³/s, Sept. 23, 1980, gage height, 0.66 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 22	2200	383	2.98	May 18	0200	698	3.79
Feb. 12	1700	393	3.01	July 26	2345	895	4.20
May 3	0900	324	2.79	Sept. 27	1300	*1,420	*5.08

Minimum discharge, 3.7 ft³/s, Sept. 19, 20, 21, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	5.5	6.4	12	5.3	11	14	4.9	24	6.9	12	3.9
2	10	5.6	5.6	28	7.7	11	9.0	13	9.7	6.6	8.1	3.7
3	5.9	5.2	14	16	5.8	9.9	8.5	153	9.6	15	7.4	3.7
4	5.0	5.3	10	12	4.5	10	8.0	23	8.9	7.5	6.9	3.6
5	4.7	15	7.1	13	4.1	18	7.6	14	36	6.6	6.5	3.6
6	4.5	8.0	39	10	4.7	12	8.7	12	15	35	6.3	3.4
7	4.5	6.1	14	11	4.4	10	7.6	11	10	17	6.2	3.6
8	4.5	5.5	9.1	9.5	4.1	12	7.6	9.0	15	9.3	9.2	3.7
9	5.3	5.3	8.3	6.9	5.8	11	7.2	8.3	12	8.3	6.8	6.0
10	4.9	5.9	8.9	6.4	5.6	9.7	6.7	8.0	9.2	7.4	6.2	9.8
11	4.7	5.9	9.2	7.0	4.1	9.4	6.9	7.6	8.1	6.8	6.0	5.6
12	4.3	5.7	7.8	7.2	104	26	6.6	7.1	8.1	6.1	5.7	5.0
13	4.3	5.2	7.0	7.0	44	14	6.4	7.3	7.6	16	5.3	4.3
14	4.5	4.9	6.5	7.0	18	11	6.4	6.5	7.2	8.5	7.5	4.2
15	4.4	4.9	8.5	6.7	14	10	6.6	6.1	6.9	8.7	5.7	4.1
16	4.2	5.3	7.2	5.6	12	9.1	6.7	6.3	58	9.4	5.4	4.1
17	4.3	5.0	7.3	6.1	12	9.1	6.1	50	18	6.5	5.3	4.1
18	4.5	5.1	6.7	6.7	12	8.4	5.9	151	12	5.8	5.2	4.0
19	4.6	6.0	9.1	6.7	14	8.0	6.1	19	9.9	5.5	5.4	3.9
20	5.5	5.1	9.5	6.2	14	8.3	7.0	14	8.7	5.4	5.4	3.9
21	5.0	4.9	12	6.8	12	7.8	6.4	31	8.1	5.2	5.5	3.7
22	39	4.9	34	7.9	18	7.7	6.0	28	7.5	7.7	5.4	3.8
23	31	4.9	12	7.6	27	9.4	5.8	16	7.3	5.2	5.3	3.9
24	9.3	5.0	9.6	7.0	20	8.7	5.8	14	22	4.7	5.3	4.0
25	6.3	5.0	9.5	6.4	16	8.4	6.0	11	12	4.9	18	3.9
26	7.8	4.8	7.8	5.4	14	7.5	5.9	11	7.9	69	15	5.1
27	6.2	4.8	8.8	4.4	14	7.5	5.4	9.5	7.4	102	7.3	404
28	6.7	4.9	13	4.3	11	7.6	5.4	10	8.2	13	6.1	25
29	16	22	27	4.2	---	7.7	5.2	9.9	8.6	9.5	6.1	13
30	7.2	8.4	14	3.9	---	7.4	5.0	8.6	8.0	8.6	8.7	10
31	5.9	---	11	3.7	---	8.2	---	8.6	---	17	6.6	---
TOTAL	242.5	190.1	359.9	252.6	432.1	315.8	206.5	688.7	390.9	445.1	221.8	564.6
MEAN	7.82	6.34	11.6	8.15	15.4	10.2	6.88	22.2	13.0	14.4	7.15	18.8
MAX	39	22	39	28	104	26	14	153	58	102	18	404
MIN	4.2	4.8	5.6	3.7	4.1	7.4	5.0	4.9	6.9	4.7	5.2	3.4
CFSM	.66	.54	.98	.69	1.31	.86	.58	1.88	1.10	1.22	.61	1.59
IN.	.76	.60	1.13	.80	1.36	.00	.65	2.17	1.23	1.40	.70	1.78

CAL YR 1984 TOTAL 11277.8 MEAN 30.8 MAX 700 MIN 4.2 CFSM 2.61 IN. 35.55
WTR YR 1985 TOTAL 4310.6 MEAN 11.8 MAX 404 MIN 3.4 CFSM 1.00 IN. 13.59

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 the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN										
29...	1100	1.8	174	7.2	1.5	14.2	101	E1.4	140	79
MAR										
25...	1050	70	183	7.5	6.0	13.5	109	<.9	20	110
MAY										
21...	1100	3.9	161	7.0	15.5	9.5	96	<.3	700	350
JUL										
10...	1140	3.4	195	6.6	19.0	9.8	107	<.7	230	540
AUG										
20...	1150	1.6	173	7.2	18.5	9.5	102	<.7	230	1600

DATE	HARD-NESS (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									
29...	72	18	6.6	7.2	1.0	52	18	11	.10
MAR									
25...	66	17	5.8	9.4	1.0	46	19	16	<.10
MAY									
21...	61	16	5.2	7.5	1.4	42	20	12	<.10
JUL									
10...	70	18	6.2	8.0	1.5	56	18	11	<.10
AUG									
20...	82	21	7.2	7.0	1.3	64	16	8.8	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
29...	14	110	.003	1.4	.040	.12	1.5	.030	1.1
MAR									
25...	12	110	.005	.88	.100	.27	1.2	.030	2.0
MAY									
21...	14	100	.003	.88	.090	.27	1.2	.030	2.1
JUL									
10...	15	110	.005	.94	.180	.42	1.4	.030	2.2
AUG									
20...	14	110	.004	1.1	.050	.16	1.3	.030	.90

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929. 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.--Estimated daily discharges: Feb. 17 to Mar. 25. Records good except those for period of no gage-height record, Feb. 17 to Mar. 25, which are fair. Flow regulated by Spruce Run Reservoir (see Raritan River basin, reservoirs in). Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 63.3 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,410 ft³/s, Apr. 2, 1970, gage height, 5.17 ft; no flow Aug. 22 to Sept. 17, 1963, Sept. 19, 1963 to Mar. 14, 1964, Mar. 19, 1964, result of filling Spruce Run Reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 210 ft³/s, July 13, 22, 25, gage height, 2.12 ft; minimum, 2.3 ft³/s, Oct. 30, Nov. 2, gage height, 1.20 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	39	18	8.0	98	6.3	9.0	76	9.4	31	6.1	39
2	52	15	49	8.6	71	8.0	8.9	47	9.0	72	6.3	52
3	41	43	30	8.0	70	7.9	9.0	9.8	9.0	82	21	93
4	81	87	7.2	8.3	70	6.7	9.0	7.4	8.9	90	67	116
5	101	40	7.1	7.9	67	8.7	8.8	9.0	9.9	120	115	142
6	107	8.0	8.5	8.3	50	7.6	8.8	8.7	8.5	129	145	161
7	129	8.0	7.4	8.3	38	7.9	8.8	8.2	8.3	76	161	182
8	110	8.3	7.6	8.2	58	7.9	8.9	8.0	8.5	68	93	192
9	85	16	7.6	65	72	8.5	8.6	8.3	7.6	94	37	103
10	91	25	7.6	112	72	8.5	11	8.3	7.6	126	81	8.7
11	102	16	7.6	112	51	8.0	21	8.3	8.0	150	120	8.0
12	130	8.4	8.0	112	35	9.4	14	8.3	8.1	194	114	12
13	160	27	8.1	111	19	8.5	8.9	8.3	14	200	121	72
14	166	49	6.9	87	9.7	8.5	28	8.2	37	183	78	115
15	154	60	8.2	53	9.0	8.0	17	8.3	50	131	101	131
16	147	65	8.3	89	9.0	8.4	11	8.3	36	68	163	154
17	153	75	8.3	112	9.0	8.2	22	9.0	8.8	69	183	145
18	155	86	8.2	112	8.7	7.3	25	10	8.5	118	179	140
19	167	76	8.2	114	8.7	8.0	36	7.5	8.3	152	161	155
20	140	70	8.3	116	8.0	8.8	27	7.9	8.4	185	165	173
21	115	77	8.3	146	7.7	8.5	15	9.4	8.3	194	177	179
22	116	91	8.5	174	8.5	8.7	16	8.6	19	162	159	179
23	9.5	95	7.7	125	8.2	8.7	31	8.5	37	130	155	176
24	7.6	121	7.6	95	8.4	8.8	33	8.3	33	177	159	156
25	31	130	7.8	95	8.2	8.4	38	8.3	8.7	204	101	124
26	47	127	7.6	95	8.4	8.3	35	8.3	8.0	76	18	94
27	43	99	8.2	94	8.2	8.3	66	8.3	8.0	9.2	14	33
28	50	89	7.8	94	7.9	8.3	87	8.4	7.6	6.9	58	5.6
29	8.8	41	8.1	68	---	8.3	66	8.3	20	30	78	5.5
30	7.2	8.3	7.7	53	---	8.3	60	8.3	28	55	67	7.9
31	16	---	7.9	88	---	8.4	---	8.3	---	33	57	---
TOTAL	2790.1	1700.0	317.3	2387.6	898.6	254.1	747.7	367.8	451.4	3415.1	3160.4	3153.7
MEAN	90.0	56.7	10.2	77.0	32.1	8.20	24.9	11.9	15.0	110	102	105
MAX	167	130	49	174	98	9.4	87	76	50	204	183	192
MIN	7.2	8.0	6.9	7.9	7.7	6.3	8.6	7.4	7.6	6.9	6.1	5.5

CAL YR 1984 TOTAL 36922.6 MEAN 101 MAX 2060 MIN 3.7
WTR YR 1985 TOTAL 19643.8 MEAN 53.8 MAX 204 MIN 5.5

01396800 SPRUCE RUN AT CLINTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-62, 1967 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to September 1969, January 1971 to September 1980.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to April 1961.

COOPERATION.--Field data and samples for laboratory analyses provided by the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 29...	1215	51	150	7.5	2.5	13.6	99	2.3	<20	14
MAR 25...	1000	8.4	144	7.6	5.0	12.2	96	E1.8	<20	<2
MAY 21...	1030	9.0	163	7.2	17.0	10.8	113	<1.1	<20	4
JUL 10...	1100	116	165	6.5	20.0	10.0	111	E1.6	20	17
AUG 20...	1050	155	137	7.0	21.0	9.1	102	E2.1	<20	17

DATE	HARD-NESS (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 29...	56	14	5.2	6.8	1.4	39	18	10	.10
MAR 25...	58	14	5.5	7.1	1.2	42	18	11	.10
MAY 21...	66	16	6.3	7.0	1.4	48	18	9.8	.10
JUL 10...	56	14	5.2	7.5	1.4	40	19	12	<.10
AUG 20...	57	14	5.3	7.3	1.4	41	16	11	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 29...	5.6	84	.004	.26	.080	.44	.70	.030	2.5
MAR 25...	5.3	87	.006	.31	.130	.52	.83	.050	3.0
MAY 21...	3.2	91	.008	.26	.120	.40	.66	.030	2.9
JUL 10...	4.2	87	.029	.18	.350	.52	.70	.030	2.4
AUG 20...	4.3	84	.005	.05	.220	.47	.52	.070	3.3

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 highway bridge at Stanton Station, 0.4 mi upstream from Prescott Brook, and 1.4 mi west of Stanton.

DRAINAGE AREA.--147 mi².

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).

GAGE.--Water-stage recorder. Datum of gage is 125.01 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 17, 1925, nonrecording gage on downstream side of highway bridge at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 11 to Feb. 4 and Aug. 1-4. Records good except those for period of ice effect, Jan. 11 to Feb. 4, and for period of no gage-height record, Aug. 1-4, which are poor. Flow regulated by Spruce Run Reservoir since September 1963 (see Raritan River basin, reservoirs in). Occasional regulation at low flows by ponds above station. Slight diurnal fluctuation caused by small powerplants above station. Water diverted by Hamden Pumping Station, 4.0 mi upstream, into Round Valley Reservoir since February 1966 (see Raritan River basin, diversions). Several measurements of water temperature were made during the year. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--69 years (water years 1904-06, 1920-85) 245 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s, Aug. 19, 1955, gage height, 15.22 ft, from rating curve extended above 6,400 ft³/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; minimum, 9 ft³/s, Nov. 7, 1931; minimum daily, 12 ft³/s, Oct. 18, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,670 ft³/s, Sept. 27, gage height, 7.75 ft; minimum, 62 ft³/s, Sept. 12, gage height, 2.20 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	113	102	141	270	143	150	128	203	95	130	114
2	156	102	124	212	220	140	134	136	142	130	99	102
3	123	98	128	219	176	132	113	853	115	177	88	128
4	145	146	167	163	160	127	110	424	107	154	122	147
5	165	208	113	161	1020	170	106	215	203	175	174	163
6	164	135	226	142	1060	168	105	174	217	187	181	176
7	194	101	210	139	378	132	106	157	130	172	198	193
8	195	92	132	136	466	132	101	144	127	136	181	218
9	161	88	117	144	396	134	100	128	123	140	124	196
10	152	100	112	230	359	123	96	121	110	170	123	89
11	162	99	119	230	313	118	103	116	100	178	163	108
12	181	90	116	240	598	186	99	110	96	223	161	72
13	210	94	106	230	632	209	91	108	93	273	163	98
14	222	115	100	206	267	149	96	102	111	237	163	142
15	210	123	104	153	189	138	106	95	118	218	134	154
16	200	128	104	153	160	127	92	93	390	159	185	174
17	203	132	100	172	143	125	99	170	287	125	211	168
18	205	145	98	210	136	120	99	900	184	165	212	156
19	215	142	99	210	134	112	106	300	153	183	189	166
20	203	131	120	190	139	113	116	189	120	214	183	188
21	177	130	113	250	130	113	103	192	108	219	206	194
22	201	145	279	330	136	109	87	270	104	237	185	194
23	440	150	192	255	222	114	99	177	122	185	174	195
24	149	158	142	222	308	119	103	160	147	195	177	180
25	121	182	131	225	239	113	111	144	132	231	178	152
26	144	171	119	222	184	104	106	131	104	258	156	139
27	137	154	121	258	169	102	117	119	91	600	96	1650
28	135	141	126	257	154	102	149	116	90	148	103	922
29	194	203	185	185	---	105	130	121	98	115	121	225
30	113	145	193	160	---	103	119	109	123	140	126	162
31	99	---	145	205	---	102	---	103	---	138	179	---
TOTAL	5527	3961	4243	6250	8758	3984	3252	6305	4248	5977	4885	6965
MEAN	178	132	137	202	313	129	108	203	142	193	158	232
MAX	440	208	279	330	1060	209	150	900	390	600	212	1650
MIN	99	88	98	136	130	102	87	93	90	95	88	72

CAL YR 1984 TOTAL 137161 MEAN 375 MAX 5420 MIN 74
WTR YR 1985 TOTAL 64355 MEAN 176 MAX 1650 MIN 72

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 mi².

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 02...	1400	162	266	8.2	13.5	11.4	110	3.7	350	>2400
FEB 14...	1215	365	255	7.4	.5	14.0	98	4.4	230	1600
APR 01...	1200	168	257	8.1	10.0	11.8	106	4.1	3500	920
JUN 04...	1340	120	271	7.8	22.0	9.7	111	E2.0	490	350
JUL 10...	1145	187	225	8.2	23.5	10.4	124	E1.6	490	540
AUG 05...	1230	170	278	8.2	23.0	8.9	103	<.9	490	920

DATE	HARD-NESS (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 02...	92	23	8.3	14	1.8	65	23	18	.10
FEB 14...	61	15	5.6	25	2.2	31	18	43	<.10
APR 01...	96	24	8.8	17	1.7	63	25	25	.10
JUN 04...	92	24	7.8	16	2.0	65	27	21	.10
JUL 10...	78	19	7.3	11	2.1	61	23	17	.10
AUG 05...	98	25	8.6	18	2.6	75	31	25	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 02...	8.3	140	.044	1.2	.150	.69	1.9	.160	2.5
FEB 14...	8.4	140	.016	1.6	.390	.95	2.5	.140	3.5
APR 01...	7.9	150	.045	1.5	.260	.77	2.2	.170	3.3
JUN 04...	8.1	140	.036	1.5	.110	.61	2.1	.160	3.7
JUL 10...	5.9	120	.032	.99	.180	.50	1.5	.170	3.2
AUG 05...	8.4	160	.029	.98	.170	.47	1.5	.230	3.6

01397400 SOUTH BRANCH RARITAN RIVER AT THREE BRIDGES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 02...	1400	<.5	<.1	1.3	10	1	<1	<10	30	1	<1
JUN 04...	1340	<.5	--	--	20	1	--	<10	--	1	--

DATE	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)	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)
OCT 02...	10	6	<10	4	7	280	5100	5	10	60	330
JUN 04...	10	--	--	4	--	240	--	3	--	70	--

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 02...	<.1	<.01	<1	<10	<1	<1	20	20	<1	<1	<1.0
JUN 04...	<.1	--	2	--	<1	--	50	--	2	--	--

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 02...	<.1	<1.0	<.1	.5	.4	<.1	<.1	<.1	<.1	<.1	<.1
JUN 04...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 02...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN 04...	--	--	--	--	--	--	--	--	--	--	--

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 highway bridge, 0.6 ft southwest of Reaville, 1.5 mi downstream from Third Neshanic River, and 2.2 mi upstream from Back Brook.

DRAINAGE AREA.--25.7 mi².

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 National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature, other than those published, were made during the year.

AVERAGE DISCHARGE.--55 years, 36.2 ft³/s, 19.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,900 ft³/s, Aug. 28, 1971, gage height, 13.84 ft, from high-water mark in gage house, from rating curve extended above 1,700 ft³/s on basis of slope-area measurement 0.7 mi downstream (adjusted to present site) at gage height 11.90 ft; no flow many days 1965, 1966, and part of July 17, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1730	1,940	7.63	Sept. 27	1415	*2,360	*8.13

Minimum discharge, 0.29 ft³/s, Sept. 21, 22, gage height, 2.14 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.8	4.5	32	7.9	22	25	2.8	73	4.1	26	1.2
2	4.4	3.8	3.7	54	16	21	14	7.5	16	3.8	8.0	1.0
3	2.2	3.1	6.8	43	11	17	12	271	12	4.5	5.5	.85
4	1.6	2.8	9.2	35	7.3	16	11	67	9.6	3.3	4.2	.69
5	1.4	41	6.2	38	6.4	27	10	38	50	2.8	3.4	.64
6	1.2	14	90	28	7.6	17	11	27	26	2.9	2.9	.59
7	.99	7.8	45	29	7.3	14	8.6	22	16	4.2	2.5	.49
8	.90	6.0	24	29	6.6	19	8.2	17	24	2.8	10	.75
9	1.6	5.4	18	17	9.5	17	7.8	14	18	2.9	4.1	2.9
10	1.3	5.1	16	16	9.0	14	7.2	12	14	2.4	3.0	3.0
11	1.1	5.1	15	15	6.2	13	7.2	10	10	2.0	2.6	1.4
12	1.1	4.8	13	15	424	40	6.8	8.5	9.6	1.5	2.3	.86
13	1.1	3.9	11	13	148	26	6.2	7.6	8.0	3.1	1.9	.67
14	1.1	3.4	9.3	12	58	20	5.9	6.9	7.0	2.4	1.9	.57
15	.84	3.2	12	11	38	17	6.2	5.8	6.2	4.6	1.5	.55
16	.85	3.2	11	8.1	28	15	6.4	6.4	36	3.5	1.2	.53
17	.79	2.8	11	8.2	23	15	5.7	24	21	2.2	1.1	.44
18	.87	2.8	9.9	9.3	22	13	5.1	288	12	1.5	1.3	.45
19	.89	3.9	9.9	9.0	24	11	5.3	39	9.1	1.3	1.4	.51
20	.87	2.9	12	7.1	24	11	5.7	24	7.9	1.2	2.0	.47
21	.98	2.5	10	8.3	20	9.7	5.0	37	6.9	1.2	2.8	.40
22	3.5	2.3	65	9.5	26	8.9	4.7	97	5.6	16	2.2	.39
23	27	2.3	33	9.1	50	13	4.2	35	5.0	3.0	1.8	.40
24	4.5	2.5	24	8.0	52	12	4.2	29	47	1.8	1.8	.66
25	3.0	2.3	24	7.5	45	12	4.5	21	16	1.3	7.6	.80
26	2.8	2.2	17	6.2	36	9.3	4.3	17	7.7	37	9.2	.74
27	2.4	2.2	16	5.1	34	8.9	3.7	14	6.2	23	3.2	685
28	2.1	2.3	22	5.1	25	8.8	3.6	12	6.1	6.1	2.0	65
29	46	10	64	5.1	---	8.5	3.4	11	6.0	3.5	1.4	27
30	7.4	5.8	39	4.6	---	7.8	3.0	8.6	4.7	2.9	1.5	18
31	4.8	---	29	4.3	---	7.6	---	8.1	---	53	1.4	---
TOTAL	132.68	163.2	680.5	501.5	1171.8	471.5	215.9	1188.2	496.6	205.8	121.7	816.95
MEAN	4.28	5.44	22.0	16.2	41.9	15.2	7.20	38.3	16.6	6.64	3.93	27.2
MAX	46	41	90	54	424	40	25	288	73	53	26	685
MIN	.79	2.2	3.7	4.3	6.2	7.6	3.0	2.8	4.7	1.2	1.1	.39
CFSM	.17	.21	.86	.63	1.63	.59	.28	1.49	.65	.26	.15	1.06
IN.	.19	.24	.99	.73	1.70	.68	.31	1.72	.72	.30	.18	1.18

CAL YR 1984 TOTAL 18044.38 MEAN 49.3 MAX 1330 MIN .79 CFSM 1.92 IN. 26.12
WTR YR 1985 TOTAL 6166.33 MEAN 16.9 MAX 685 MIN .39 CFSM .66 IN. 8.93

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 Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT										
03...	1400	2.2	450	8.5	14.0	12.8	126	E1.7	170	110
FEB										
14...	1330	56	250	7.2	1.5	13.5	97	E1.8	490	>2400
APR										
01...	1330	25	260	9.0	11.0	14.6	135	E2.4	1700	540
JUN										
13...	0945	8.3	332	7.1	17.0	10.4	109	<1.0	2200	>2400
JUL										
10...	1330	2.2	481	9.1	26.5	15.1	190	E1.9	260	540
AUG										
05...	1330	3.2	319	9.3	26.5	13.4	166	E1.7	790	240

DATE	HARD-NESS (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									
03...	160	43	12	24	2.9	88	71	35	<.10
FEB									
14...	70	18	6.2	17	2.4	23	28	34	<.10
APR									
01...	82	21	7.2	17	1.7	43	32	28	<.10
JUN									
13...	130	33	11	22	1.6	61	55	33	.10
JUL									
10...	170	43	15	28	1.9	86	82	52	.20
AUG									
05...	120	31	11	17	2.7	70	51	31	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
03...	5.3	250	.014	.47	<.050	.44	.91	.050	3.5
FEB									
14...	9.7	130	.016	2.9	.100	.26	3.2	.100	3.2
APR									
01...	8.9	140	.030	1.5	.130	.49	2.0	.070	4.6
JUN									
13...	11	200	.023	2.2	.120	.40	2.6	.060	2.6
JUL									
10...	1.2	270	.004	.05	.100	.53	.58	.040	4.4
AUG									
05...	7.3	190	.020	1.4	.070	.50	1.9	.090	3.7

01398000 NESHANIC RIVER AT REAVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 03...	1400	<.5	<10	2	<10	70	<1	<10	3
JUN 13...	0945	<.5	--	<1	<10	20	<1	10	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)	PHENOLS TOTAL (UG/L)
OCT 03...	150	2	20	<.1	<1	<1	10	<1
JUN 13...	300	3	30	.1	2	<1	160	1

01398045 BACK BROOK TRIBUTARY NEAR RINGOES, NJ

LOCATION.--Lat 40°25'41", long 74°49'52", Hunterdon County, Hydrologic Unit 02030105, 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.

DRAINAGE AREA.--1.98 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 161.6 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 17 to Feb. 11, Apr. 13 to May 1, June 29 to July 5, and Aug. 29 to Sept. 25. Records fair except those below 1.0 ft³/s, which are poor.

AVERAGE DISCHARGE.--8 years, 4.49 ft³/s, 30.80 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft³/s, Aug. 3, 1979, gage height, 5.05 ft, from rating curve extended above 200 ft³/s on basis of contracted-opening measurement at gage height 4.64 ft; minimum daily, 0.01 ft³/s, Feb. 19, 1979, Sept. 14, 22, 1981, and Oct. 1, 3-5, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1445	*585	*3.20	No other peak greater than base discharge.			

Minimum daily discharge, 0.02 ft³/s, many days in September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.10	.13	1.4	.25	1.0	3.1	.14	7.8	.10	1.0	.05
2	.06	.10	.13	3.4	.64	.91	1.1	.46	.54	.14	.30	.06
3	.04	.10	.23	2.2	.39	.72	.87	16	.38	.12	.15	.05
4	.04	.10	.25	1.5	.35	.75	.73	3.8	.32	.10	.10	.04
5	.04	.88	.18	1.9	.25	2.4	.65	1.6	2.4	.09	.09	.04
6	.04	.17	7.2	1.4	.30	1.0	.58	1.0	.88	1.1	.08	.03
7	.04	.11	1.7	1.6	.27	.81	.52	.83	.43	.38	.08	.02
8	.04	.10	.88	1.5	.26	1.2	.50	.62	.57	.23	.74	.09
9	.04	.08	.67	.95	.35	.98	.47	.51	.44	.21	.11	.14
10	.04	.09	.60	.70	.32	.80	.47	.46	.35	.18	.10	.11
11	.04	.09	.57	.62	.25	.73	.47	.44	.31	.16	.10	.09
12	.04	.09	.53	.58	225	3.2	.44	.40	.28	.16	.09	.06
13	.04	.08	.49	.56	104	1.6	.30	.38	.21	.25	.09	.05
14	.04	.08	.47	.50	3.7	1.1	.29	.36	.16	.23	.10	.04
15	.04	.08	.52	.45	2.7	.92	.34	.32	.13	.23	.09	.03
16	.04	.08	.47	.40	2.1	.78	.33	.33	.34	.26	.09	.03
17	.04	.08	.47	.32	1.2	.75	.30	.81	.21	.21	.10	.02
18	.04	.09	.47	.36	1.1	.65	.28	11	.16	.19	.10	.02
19	.05	.10	.52	.35	1.6	.55	.33	1.2	.12	.16	.10	.02
20	.06	.10	.56	.30	1.7	.57	.30	.66	.11	.15	.10	.02
21	.06	.10	.85	.32	1.5	.51	.28	3.2	.11	.15	.10	.02
22	.07	.09	3.2	.38	3.5	.47	.27	3.7	.10	.39	.09	.02
23	.17	.09	1.2	.35	6.3	.74	.26	1.3	.09	.12	.10	.02
24	.14	.10	.90	.33	4.6	.71	.25	1.0	.14	.11	.10	.02
25	.10	.10	.91	.30	2.9	.74	.24	.70	.11	.11	.22	.03
26	.09	.10	.70	.28	2.2	.56	.24	.54	.09	1.1	1.3	.30
27	.09	.10	.72	.23	1.8	.53	.23	.45	.09	.45	.11	67
28	.12	.10	2.1	.20	1.1	.53	.21	.43	.10	.26	.09	3.3
29	.45	.22	4.0	.18	---	.53	.18	.44	.09	.23	.08	1.4
30	.13	.14	1.6	.17	---	.50	.16	.39	.08	.21	.07	.98
31	.10	---	1.2	.16	---	.49	---	.38	---	16	.06	---
TOTAL	2.38	3.84	34.42	23.89	370.63	27.73	14.69	53.85	17.14	23.78	6.03	74.10
MEAN	.08	.13	1.11	.77	13.2	.89	.49	1.74	.57	.77	.19	2.47
MAX	.45	.88	7.2	3.4	225	3.2	3.1	16	7.8	16	1.3	67
MIN	.04	.08	.13	.16	.25	.47	.16	.14	.08	.09	.06	.02
CFSM	.04	.07	.56	.39	6.67	.45	.25	.88	.29	.39	.10	1.25
IN.	.04	.07	.65	.45	6.96	.52	.28	1.01	.32	.45	.11	1.39

CAL YR 1984 TOTAL 1216.46 MEAN 3.32 MAX 118 MIN .04 CFSM 1.68 IN. 22.85
WTR YR 1985 TOTAL 652.48 MEAN 1.79 MAX 225 MIN .02 CFSM .90 IN. 12.26

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--Estimated daily discharges: Feb. 26 to Mar. 5 Records good except those for period of no gage-height record, Feb. 26 to Mar. 5, which are fair. Several measurements of water temperature were made during the year. Recording rain-gage and gage-height telemeter at station.

AVERAGE DISCHARGE.--7 years, 15.2 ft³/s, 23.00 in/yr.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s, July 7, 1984, gage height, 8.08 ft; minimum, 0.22 ft³/s, Aug. 28, 1980, gage height, 1.61 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1630	564	5.07	Sept. 27	1250	*747	*5.86

Minimum daily discharge, 0.83 ft³/s Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	3.8	3.5	18	2.5	9.3	6.0	1.9	6.0	2.6	2.9	1.1
2	2.2	3.6	3.1	25	3.6	8.9	4.5	3.2	3.2	2.4	1.6	1.1
3	1.4	2.9	5.6	23	2.7	7.1	4.3	99	3.5	3.1	1.4	.96
4	1.3	2.7	5.6	22	2.1	6.7	4.1	39	3.3	2.4	1.3	.99
5	1.2	35	5.2	20	2.0	11	3.9	22	15	2.2	1.2	.94
6	1.2	15	53	14	2.3	7.4	4.6	15	6.5	2.1	1.1	.90
7	1.2	9.7	31	14	2.2	6.7	3.7	11	4.5	2.9	1.1	.83
8	1.3	7.2	19	13	1.9	7.6	3.6	8.2	4.9	1.9	3.1	.89
9	1.5	6.0	13	8.8	1.9	7.0	3.4	6.8	4.1	2.0	1.5	12
10	1.4	5.5	10	7.7	1.9	6.2	2.9	5.9	3.6	1.8	1.2	3.5
11	1.4	5.2	8.7	7.7	1.9	5.8	3.0	5.0	3.2	1.6	1.2	1.9
12	1.4	4.6	7.8	6.9	135	14	2.7	4.3	3.2	1.5	1.1	1.4
13	1.2	3.8	6.9	6.2	57	14	2.6	3.9	2.7	1.9	1.0	1.2
14	1.3	3.3	5.6	5.8	25	13	2.5	3.6	2.5	1.5	4.1	1.2
15	1.4	3.1	6.6	4.8	18	11	2.7	3.1	2.2	1.8	1.4	1.2
16	1.3	3.1	5.6	4.3	13	9.1	2.7	3.1	17	1.9	1.2	1.2
17	1.2	2.7	5.8	4.1	11	8.3	2.4	4.1	10	1.5	1.1	1.2
18	1.4	2.7	5.4	4.1	9.6	7.3	2.2	19	6.9	1.3	1.1	1.1
19	1.3	3.0	6.1	4.0	10	6.1	2.5	7.4	5.2	1.3	1.1	1.1
20	1.2	2.5	6.1	3.1	10	5.9	3.0	5.7	4.1	1.3	1.0	1.1
21	1.2	2.2	7.9	2.3	9.0	5.1	2.6	8.1	3.6	1.2	1.1	1.1
22	7.2	2.2	34	2.5	11	4.5	2.5	13	3.3	1.8	1.1	1.1
23	17	2.2	23	2.8	18	5.3	2.5	8.8	3.0	1.2	1.0	1.1
24	2.5	2.2	18	3.0	21	4.9	2.5	7.4	5.8	.95	1.1	1.2
25	1.8	2.2	14	2.7	19	4.5	2.5	6.0	3.9	.96	2.7	1.1
26	2.1	2.0	9.2	2.4	16	3.7	2.4	5.0	2.9	4.0	3.8	3.1
27	1.8	1.9	9.0	2.1	14	3.7	2.2	4.1	2.6	9.9	1.7	213
28	3.8	2.0	10	2.0	11	3.7	2.2	3.8	2.8	2.0	1.3	29
29	44	5.8	26	1.9	---	3.8	1.9	3.9	3.2	1.5	1.2	13
30	7.2	3.6	26	1.9	---	3.5	1.9	3.3	4.5	1.4	1.3	8.5
31	4.9	---	21	1.8	---	3.4	---	3.1	---	3.8	1.2	---
TOTAL	121.1	151.7	411.7	241.9	432.6	218.5	90.5	337.7	147.2	67.71	48.2	308.01
MEAN	3.91	5.06	13.3	7.80	15.4	7.05	3.02	10.9	4.91	2.18	1.55	10.3
MAX	44	35	53	25	135	14	6.0	99	17	9.9	4.1	213
MIN	1.2	1.9	3.1	1.8	1.9	3.4	1.9	1.9	2.2	.95	1.0	.83
CFSM	.43	.56	1.48	.87	1.71	.78	.34	1.21	.55	.24	.17	1.14
IN.	.50	.63	1.70	.00	1.79	.90	.37	1.40	.61	.28	.20	1.27

CAL YR 1984 TOTAL 7011.5 MEAN 19.2 MAX 405 MIN 1.2 CFSM 2.13 IN. 28.98
WTR YR 1985 TOTAL 2576.82 MEAN 7.06 MAX 213 MIN .83 CFSM .78 IN. 10.65

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 mi².

WATER-QUALITY RECORDS

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 10...	1240	E3.1	260	6.9	14.5	8.0	78	2.8	40	170
JAN 30...	1110	E4.0	56	7.3	.5	15.8	109	E2.2	20	33
APR 01...	1200	E6.8	232	7.5	9.5	11.8	105	E2.3	20	11
MAY 16...	1110	E4.2	212	7.0	15.0	8.4	84	4.4	110	220
JUL 09...	1100	E3.4	230	7.6	18.5	8.6	93	2.6	130	920
AUG 08...	1015	E4.3	174	6.3	20.5	8.4	94	3.8	16000	>2400

DATE	HARD-NESS (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 10...	78	19	7.3	17	2.2	51	19	26	<.10
JAN 30...	66	16	6.4	17	1.6	40	16	28	<.10
APR 01...	54	13	5.2	17	1.3	27	15	32	<.10
MAY 16...	68	17	6.3	14	1.6	42	17	24	.10
JUL 09...	73	18	6.8	15	2.0	48	17	25	.10
AUG 08...	--	--	--	--	2.2	42	14	18	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 10...	17	140	.167	2.7	.400	.59	3.3	.570	2.1
JAN 30...	17	130	.009	1.6	1.89	2.0	3.5	.400	1.8
APR 01...	14	110	.028	1.0	.820	1.2	2.3	.220	3.3
MAY 16...	17	120	.128	1.7	.770	1.3	3.0	.380	3.3
JUL 09...	17	130	.181	2.5	.200	.65	3.2	.540	2.9
AUG 08...	--	--	.103	1.2	.240	.90	2.1	.310	5.6

01398260 NORTH BRANCH RARITAN RIVER NEAR CHESTER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 10...	1240	<.5	.4	2.2	<10	<1	<1	<10	60	1	<1

DATE	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)	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)
OCT 10...	<10	4	<10	2	4	190	4400	<1	20	30	420

DATE	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)	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)
OCT 10...	<.1	<.01	3	<10	<1	<1	20	30	40	<1.0	<.1

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT 10...	<1.0	2.5	<.1	20	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 10...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

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. Water-quality samples collected at bridge 900 ft downstream from gage.

DRAINAGE AREA.--26.2 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929 (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.--Estimated daily discharges: Jan. 9-14, 17, 19, 23-31. Records fair except those for periods of ice effect, Jan. 9-14, 17, 19, 23-31, which are poor. Records given herein include diversion by small turbine at dam and returned to river 1,000 ft downstream from Ravine Lake Dam. Flow regulated occasionally by operation of waste gate in dam (no gate opening this year). Recording rain gage, with telemeter, 500 ft downstream of station. Several measurements of water temperature were made during the year. Recording rain-gage and gage-height telemeters at station.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

AVERAGE DISCHARGE.--62 years (water years 1922-75, 1978-85) 47.9 ft³/s, 24.83 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,390 ft³/s, Aug. 28, 1971, gage height, 7.28 ft, from rating curve extended above 2,000 ft³/s on basis of computation of peak flow over dam; no flow at times when Ravine Lake was filling.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stage of 7.6 ft, from floodmark, occurred July 23, 1919, discharge about 7,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1345	*1,430	*4.17	No other peak greater than base discharge.			

Minimum daily discharge, 4.8 ft³/s, Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	20	24	33	23	34	44	20	43	16	21	8.6
2	35	19	20	53	25	34	33	27	28	15	13	7.1
3	23	17	30	46	23	32	29	237	23	20	11	6.8
4	18	17	44	35	19	32	29	76	22	20	10	6.9
5	17	64	27	37	30	50	28	53	57	15	9.9	6.8
6	16	39	65	32	28	37	29	46	43	15	9.3	6.8
7	16	26	44	32	22	34	28	43	27	27	9.3	6.6
8	16	23	31	31	19	37	27	37	25	16	22	7.1
9	17	21	27	23	18	35	26	32	27	14	16	11
10	17	22	27	25	18	32	25	32	24	13	11	15
11	16	23	30	26	19	32	25	30	20	12	9.8	16
12	15	25	27	24	181	59	25	30	20	11	12	7.9
13	13	21	25	24	126	44	24	32	19	20	9.5	6.3
14	14	18	23	23	45	41	24	29	17	16	9.5	5.9
15	13	17	25	26	36	37	27	26	17	14	9.2	5.5
16	12	17	25	19	32	33	29	26	89	15	8.5	5.4
17	12	17	24	24	31	33	30	26	61	22	7.9	5.6
18	12	17	23	26	31	32	27	112	46	13	7.6	5.6
19	12	17	25	26	32	31	27	42	35	11	7.4	5.6
20	13	17	33	21	33	31	32	31	27	11	7.4	5.6
21	12	16	27	18	32	30	30	49	25	10	7.2	5.8
22	22	17	72	23	34	29	27	87	23	16	7.3	6.4
23	117	15	40	25	63	32	26	42	22	12	6.9	7.1
24	34	15	33	23	58	32	23	37	24	9.2	6.4	6.9
25	24	15	32	22	46	29	22	32	30	9.2	13	5.3
26	23	15	27	21	39	28	23	28	18	43	38	4.8
27	23	14	29	20	38	28	22	26	15	96	27	438
28	20	14	30	20	35	28	21	26	16	24	17	63
29	58	63	47	20	---	29	21	29	19	16	7.7	31
30	30	35	41	20	---	28	20	23	18	14	8.4	24
31	23	---	31	21	---	29	---	22	---	15	13	---
TOTAL	712	676	1008	819	1136	1052	803	1388	880	580.4	373.2	744.4
MEAN	23.0	22.5	32.5	26.4	40.6	33.9	26.8	44.8	29.3	18.7	12.0	24.8
MAX	117	64	72	53	181	59	44	237	89	96	38	438
MIN	12	14	20	18	18	28	20	20	15	9.2	6.4	4.8
CFSM	.88	.86	1.24	1.01	1.55	1.29	1.02	1.71	1.12	.71	.46	.95
IN.	1.01	.96	1.43	1.16	1.61	1.49	1.14	1.97	1.25	.82	.53	1.06

CAL YR 1984 TOTAL 26845 MEAN 73.3 MAX 1260 MIN 12 CFSM 2.80 IN. 38.12
WTR YR 1985 TOTAL 10172.0 MEAN 27.9 MAX 438 MIN 4.8 CFSM 1.06 IN. 14.44

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 mi².

WATER-QUALITY RECORDS

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 17...	1215	E24	255	8.4	13.0	12.3	116	E2.1	130	79
FEB 14...	1015	E93	--	6.1	.0	14.0	97	E2.0	260	>2400
APR 03...	1120	E54	219	8.4	5.0	14.4	115	2.4	80	46
MAY 29...	1130	E47	213	7.0	17.5	10.0	105	E1.6	330	1600
JUL 18...	1040	E31	240	7.6	22.0	8.8	100	E1.3	700	130
AUG 21...	1040	E15	255	6.9	21.0	8.3	93	<.9	170	350

DATE	HARD-NESS (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 17...	88	22	8.1	13	1.8	65	22	21	.10
FEB 14...	59	15	5.2	26	1.8	28	16	50	<.10
APR 03...	75	19	6.6	13	1.2	48	20	26	<.10
MAY 29...	75	19	6.6	12	1.5	48	19	24	.10
JUL 18...	80	20	7.3	13	1.9	57	21	22	.10
AUG 21...	91	23	8.2	15	2.0	68	21	24	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 17...	8.6	140	.008	.93	.070	.19	1.1	.080	2.6
FEB 14...	9.6	140	.013	1.1	.130	.77	1.9	.100	3.5
APR 03...	9.4	120	.029	.84	.070	.41	1.3	.070	2.6
MAY 29...	14	120	.030	1.2	.200	.37	1.5	.100	3.1
JUL 18...	14	130	.018	.98	.110	.38	1.4	.130	3.4
AUG 21...	13	150	.009	.90	.090	.33	1.2	.130	3.5

01399120 NORTH BRANCH RARITAN RIVER AT BURNT MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 29...	1130	<.5	10	<1	<10	40	<1	<10	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)	PHENOLS TOTAL (UG/L)
MAY 29...	210	3	30	<.1	2	<1	20	1

01399190 LAMINGTON (BLACK) RIVER AT SUCCASUNNA, NJ

LOCATION.--Lat 40°51'03", long 74°38'02", Morris County, Hydrologic Unit 02030105, on right bank, 10 ft upstream from bridge on Righter Road, 0.7 mi south of Succasunna, and 0.4 mi upstream from Succasunna Brook.

DRAINAGE AREA.--7.37 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and prefabricated concrete bumper-block control. Datum of gage is 692.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 20-22 and Feb. 2, 8-10. Records fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years, 11.5 ft³/s, 21.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft³/s, Jan. 24, 1979, gage height, 5.20 ft; minimum, 1.2 ft³/s, Sept. 11, 12, 1980, gage height, 2.27 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1515	*75	*4.28	No other peak greater than base discharge.			

Minimum discharge, 2.1 ft³/s, Sept. 26, gage height, 2.32 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	5.8	8.1	8.2	5.4	8.7	8.6	3.3	11	6.1	5.5	6.7
2	6.7	5.6	7.3	9.6	5.9	8.3	7.2	4.9	8.9	5.8	4.9	5.4
3	6.0	5.2	8.5	9.5	5.9	7.8	6.8	18	7.9	5.4	4.5	4.6
4	5.4	5.2	8.5	8.8	6.0	7.6	6.4	17	8.1	5.1	4.3	3.8
5	4.9	8.5	7.7	8.6	5.5	9.7	6.0	13	11	5.0	3.9	3.4
6	4.4	7.2	10	7.9	5.4	9.0	6.3	9.6	11	5.4	3.4	3.3
7	4.4	6.1	8.9	7.7	5.3	8.2	6.7	8.3	9.3	5.9	3.2	3.2
8	4.4	5.5	7.9	7.4	5.2	8.4	6.1	7.7	8.3	5.1	5.4	3.9
9	4.1	5.1	7.4	6.9	5.1	8.2	5.2	7.0	7.6	4.3	4.9	4.3
10	4.0	5.2	7.1	6.6	5.0	7.5	4.9	6.6	6.9	4.2	4.5	4.5
11	4.3	5.5	6.9	6.5	4.7	7.3	5.2	6.4	5.8	4.3	4.4	5.0
12	4.6	5.5	6.8	6.6	14	9.5	5.1	6.4	5.7	4.0	4.3	4.3
13	4.5	4.9	6.8	6.4	17	9.0	5.0	6.1	5.4	5.2	3.3	3.7
14	4.7	3.9	6.7	6.2	13	8.1	5.5	5.2	4.9	5.5	3.1	3.4
15	4.8	3.8	6.9	6.3	10	7.4	5.5	5.0	4.6	6.5	3.0	3.4
16	4.3	3.8	6.9	6.6	8.8	7.0	4.7	5.3	15	6.2	3.0	3.0
17	4.2	3.8	6.8	6.0	7.9	7.1	4.8	5.9	14	5.5	3.0	2.4
18	4.3	4.2	6.3	6.0	7.4	6.6	4.6	17	12	4.7	3.2	2.3
19	4.3	4.4	6.7	6.0	7.2	5.6	4.6	11	9.6	4.3	3.1	2.4
20	4.6	3.8	7.1	5.9	7.2	5.8	5.1	8.8	8.1	4.0	2.7	2.4
21	5.0	3.6	7.3	5.7	7.2	6.1	5.5	8.4	7.0	4.0	2.6	2.5
22	8.2	3.7	11	5.6	7.4	6.0	5.1	8.5	6.5	7.9	2.6	2.8
23	19	3.7	10	5.4	10	6.5	4.1	7.6	6.4	5.5	2.5	2.7
24	13	3.4	8.9	5.1	11	6.9	4.2	7.0	8.1	4.6	2.5	2.7
25	10	3.4	8.2	5.3	11	6.8	4.2	6.4	10	4.1	4.4	2.5
26	9.1	3.4	7.4	5.5	10	5.6	4.0	5.6	8.5	11	6.0	2.3
27	8.2	3.2	7.3	5.2	9.8	5.5	4.1	5.6	7.0	15	5.2	43
28	7.7	3.4	7.8	5.1	9.2	5.6	4.3	6.8	6.7	9.6	4.5	39
29	8.4	12	8.6	5.1	---	6.0	3.9	7.0	6.9	7.3	3.9	26
30	7.1	9.6	8.8	5.1	---	6.6	3.3	6.5	6.8	5.7	7.5	16
31	6.4	---	8.3	5.1	---	7.3	---	5.9	---	5.4	8.4	---
TOTAL	196.8	152.4	242.9	201.9	227.5	225.7	157.0	247.8	249.0	182.6	127.7	214.9
MEAN	6.35	5.08	7.84	6.51	8.12	7.28	5.23	7.99	8.30	5.89	4.12	7.16
MAX	19	12	11	9.6	17	9.7	8.6	18	15	15	8.4	43
MIN	4.0	3.2	6.3	5.1	4.7	5.5	3.3	3.3	4.6	4.0	2.5	2.3
CFSM	.86	.69	1.06	.88	1.10	.99	.71	1.08	1.13	.80	.56	.97
IN.	.99	.77	1.23	1.02	1.15	1.14	.79	1.25	1.26	.92	.64	1.08

CAL YR 1984 TOTAL 5952.8 MEAN 16.3 MAX 108 MIN 3.2 CFSM 2.21 IN. 30.05
WTR YR 1985 TOTAL 2426.2 MEAN 6.65 MAX 43 MIN 2.3 CFSM .90 IN. 12.25

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ

LOCATION.--Lat 40°50'07", long 74°38'40", Morris County, Hydrologic Unit 02030105, on left bank 15 ft upstream from bridge on Ironia Road, 1.0 mi below Succasunna Brook, 1.3 mi northwest of Ironia, and 4.4 mi northeast of Chester.

DRAINAGE AREA.--10.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

REVISED RECORDS.--WDR NJ-82-1: 1981(P).

GAGE.--Water-stage recorder and concrete block control. Datum of gage is 687.4 ft, above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 20 to Jan. 2 and Jan. 21 to Feb. 7. Records fair except those for period of no gage-height record, Nov. 20 to Jan. 2 and Jan. 21 to Feb. 7, which are poor. Water for municipal supply pumped from wells upstream of gage by Morris County Municipal Utilities Authority. Several measurements of water temperature, other than those published, were made during the year.

AVERAGE DISCHARGE.--10 years, 19.4 ft³/s, 24.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 389 ft³/s, July 7, 1984, gage height, 5.15 ft; maximum gage height, 5.27 ft, Jan. 25, 1979; minimum daily discharge, 1.5 ft³/s, Oct. 1, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	0015	*163	*4.66	No other peak greater than base discharge.			

Minimum daily discharge, 3.3 ft³/s, Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	11	16	14	8.8	12	12	5.3	15	8.4	9.3	16
2	17	11	12	17	9.0	12	8.6	7.8	10	7.6	8.1	9.5
3	15	9.9	14	19	9.0	10	8.1	44	8.0	7.7	7.0	7.6
4	12	9.7	15	15	8.8	10	8.0	41	8.0	7.4	6.3	6.1
5	9.8	20	14	13	8.5	15	8.5	17	15	7.2	6.0	5.1
6	9.0	20	17	11	8.3	13	8.7	11	19	7.7	5.1	4.7
7	8.7	14	15	11	8.0	11	8.2	9.2	11	11	4.6	4.5
8	8.7	11	12	10	8.1	11	9.0	8.3	9.2	9.5	7.1	4.7
9	8.6	9.9	12	8.9	8.1	11	9.6	8.2	8.4	7.8	8.8	5.7
10	8.0	10	11	8.6	8.2	9.9	9.1	9.1	7.6	6.7	7.2	6.3
11	7.9	11	10	8.4	8.5	9.6	9.2	9.5	7.5	7.2	6.8	7.4
12	7.9	11	10	8.6	19	15	9.3	9.8	7.4	6.5	7.7	6.9
13	7.6	9.7	10	8.2	47	13	9.4	9.7	7.3	9.0	6.3	6.0
14	7.3	8.0	10	8.5	30	11	9.7	8.7	6.4	9.6	5.0	5.1
15	7.3	7.2	11	8.0	19	9.7	9.6	8.2	6.1	13	4.5	4.7
16	6.5	7.3	10	8.6	17	9.0	9.4	8.5	28	13	4.2	4.6
17	6.0	7.2	9.8	8.4	16	9.0	9.3	9.0	41	12	4.3	4.0
18	6.3	7.4	10	8.0	15	8.5	8.8	51	28	9.9	4.2	3.6
19	6.3	8.6	10	8.0	15	8.1	8.8	29	19	8.7	4.3	3.4
20	7.0	7.3	11	8.8	14	8.3	9.6	10	13	7.5	4.0	3.4
21	8.0	6.6	12	8.5	14	8.0	9.5	9.9	11	7.5	3.8	3.3
22	12	6.0	18	7.8	13	8.1	8.9	12	9.6	7.6	3.8	3.5
23	61	5.6	15	7.5	19	8.6	7.2	8.7	9.6	8.4	3.5	3.7
24	42	5.4	14	7.8	25	8.8	7.2	7.8	11	5.8	3.4	3.8
25	28	5.1	13	8.0	22	8.5	7.2	7.3	14	4.7	4.7	3.7
26	23	5.0	12	8.0	16	8.7	7.4	7.3	11	15	8.8	3.5
27	19	4.9	11	7.8	15	9.1	7.9	7.2	8.8	32	9.2	64
28	16	5.0	14	7.8	13	9.2	7.1	7.2	8.4	22	7.6	120
29	19	20	15	7.7	---	8.8	6.5	7.1	9.1	13	6.4	54
30	17	18	16	8.4	---	8.6	5.5	7.4	9.0	9.5	6.9	32
31	14	---	15	8.5	---	8.8	---	7.0	---	8.2	23	---
TOTAL	435.9	292.8	394.8	298.8	422.3	311.3	257.3	403.2	376.4	311.1	201.9	410.8
MEAN	14.1	9.76	12.7	9.64	15.1	10.0	8.58	13.0	12.5	10.0	6.51	13.7
MAX	61	20	18	19	47	15	12	51	41	32	23	120
MIN	6.0	4.9	9.8	7.5	8.0	8.0	5.5	5.3	6.1	4.7	3.4	3.3
CFSM	1.29	.90	1.17	.88	1.39	.92	.79	1.19	1.15	.92	.60	1.26
IN.	1.49	.00	1.35	1.02	1.44	1.06	.88	1.38	1.28	1.06	.69	1.40

CAL YR 1984 TOTAL 10230.1 MEAN 28.0 MAX 296 MIN 4.9 CFSM 2.57 IN. 34.91
WTR YR 1985 TOTAL 4116.6 MEAN 11.3 MAX 120 MIN 3.3 CFSM 1.04 IN. 14.05

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by the New Jersey Department of Environmental Protection Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 10...	1050	7.3	350	6.9	15.0	5.7	57	E1.3	<20	46
JAN 30...	1000	5.7	414	7.5	.0	12.0	82	E2.0	<20	2
APR 01...	1100	15	306	7.4	9.0	9.0	79	>10	1300	>2400
MAY 16...	1230	8.6	446	7.0	17.0	4.5	47	E6.9	50	140
JUL 09...	0950	6.6	400	7.3	19.5	7.2	80	E2.0	50	350
AUG 08...	1130	6.6	307	6.7	21.5	4.8	55	<.9	3500	920

DATE	HARD-NESS (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 10...	100	25	9.7	30	2.4	84	20	40	<.10
JAN 30...	110	27	11	40	2.7	98	22	49	.10
APR 01...	83	20	8.0	30	2.3	69	20	35	<.10
MAY 16...	110	26	11	47	3.7	97	27	51	<.10
JUL 09...	91	20	10	43	2.9	93	23	44	.10
AUG 08...	81	18	8.7	39	3.2	79	21	44	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 10...	11	190	.089	1.7	.160	.72	2.4	.430	2.9
JAN 30...	12	220	.083	1.8	1.37	2.2	4.0	.470	3.4
APR 01...	10	170	.107	1.0	2.41	3.7	4.7	.650	4.7
MAY 16...	8.0	230	.710	3.7	1.78	2.6	6.3	1.00	4.9
JUL 09...	5.3	200	.209	3.2	.210	.77	4.0	.540	4.5
AUG 08...	6.0	190	.113	3.1	.270	.90	4.0	.660	5.6

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 10...	1050	<.5	<10	1	<10	60	<1	10	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)	PHENOLS TOTAL (UG/L)
OCT 10...	660	2	150	<.1	3	<1	20	<1

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 sample collected at bridge 1.1 mi downstream from gage at high flows.

DRAINAGE AREA.--32.8 mi².

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 National Geodetic Vertical Datum of 1929 (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.--Estimated daily discharges: Jan. 8 to Feb. 7. Records good except those from Dec. 22 to Jan. 4, for period of ice effect, Jan. 8 to Feb. 8, and from Feb. 23 to Mar. 22, which are fair. Flow regulated occasionally by pond above station. Several measurements of water temperature, other than those published, were made during the year.

AVERAGE DISCHARGE.--64 years, 56.1 ft³/s, 23.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft³/s, July 7, 1984, gage height, 5.94 ft, from floodmark, from rating curve extended above 380 ft³/s on basis of slope-area measurement at gage height 4.71 ft; minimum, 1.3 ft³/s, Oct. 4, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1130	*443	*3.19	No other peak greater than base discharge.			

Minimum discharge, 7.8 ft³/s, Sept. 21, gage height, 1.44 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	35	39	49	22	39	50	17	38	20	25	22
2	27	33	40	57	24	39	43	29	35	19	20	24
3	22	29	47	53	23	38	34	164	27	26	18	21
4	22	26	44	47	28	37	33	118	23	23	16	17
5	22	45	37	45	25	47	30	107	49	18	15	14
6	21	38	59	42	22	45	30	86	55	28	14	13
7	21	34	45	36	21	37	29	50	42	37	14	11
8	19	35	49	29	22	36	28	36	31	24	19	11
9	18	33	40	28	21	36	27	31	29	20	17	14
10	18	30	37	29	21	35	24	29	25	18	17	25
11	18	28	35	25	21	35	24	28	22	16	16	26
12	17	28	35	25	72	52	24	27	21	15	17	18
13	16	26	33	26	95	48	23	26	21	18	15	15
14	16	24	31	30	44	41	23	25	19	17	14	14
15	16	22	31	28	35	37	24	22	18	18	13	13
16	16	21	30	30	37	34	25	22	72	20	12	12
17	16	21	29	26	46	30	24	24	69	24	11	11
18	16	20	28	25	42	29	22	81	72	18	10	10
19	16	21	29	25	41	29	22	73	66	15	11	9.7
20	16	21	35	25	39	29	26	74	43	14	11	9.1
21	16	19	34	24	38	29	26	56	27	13	11	8.7
22	38	18	69	24	37	28	24	56	22	19	10	8.7
23	76	19	49	23	60	30	22	43	21	16	9.5	8.7
24	51	18	45	22	65	32	21	33	24	17	9.0	10
25	58	19	43	21	61	31	21	27	26	15	17	9.7
26	69	19	36	23	59	28	21	24	25	50	24	11
27	60	19	31	22	56	26	20	21	23	110	20	173
28	50	19	33	21	46	26	20	22	21	65	17	101
29	54	60	49	21	---	29	19	23	23	54	15	82
30	43	43	52	21	---	29	18	21	21	37	16	84
31	38	---	48	21	---	30	---	21	---	25	21	---
TOTAL	927	823	1242	923	1123	1071	777	1416	1010	829	474.5	806.6
MEAN	29.9	27.4	40.1	29.8	40.1	34.5	25.9	45.7	33.7	26.7	15.3	26.9
MAX	76	60	69	57	95	52	50	164	72	110	25	173
MIN	16	18	28	21	21	26	18	17	18	13	9.0	8.7
CFSM	.91	.84	1.22	.91	1.22	1.05	.79	1.39	1.03	.81	.47	.82
IN.	1.05	.93	1.41	1.05	1.27	1.21	.88	1.61	1.15	.94	.54	.91

CAL YR 1984 TOTAL 32296 MEAN 88.2 MAX 861 MIN 16 CFSM 2.69 IN. 36.63
WTR YR 1985 TOTAL 11422.1 MEAN 31.3 MAX 173 MIN 8.7 CFSM .95 IN. 12.95

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 the New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 10...	1400	18	246	7.4	14.5	9.7	94	<1.1	20	350
JAN 30...	1210	44	238	7.3	.0	13.2	90	<1.0	130	2
APR 01...	1340	51	216	7.6	8.5	12.0	105	2.6	220	920
MAY 29...	1000	23	238	7.1	19.5	10.0	110	E3.4	20	540
JUL 09...	1300	20	240	7.6	20.0	8.9	100	<.7	<20	240
AUG 08...	1300	21	239	6.9	21.0	9.2	104	<1.1	1100	1600

DATE	HARD-NESS (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 10...	72	17	7.2	18	1.9	55	18	26	.10
JAN 30...	73	17	7.4	21	1.9	53	17	30	<.10
APR 01...	60	14	6.0	17	1.4	41	16	25	<.10
MAY 29...	68	16	6.9	20	1.8	54	18	28	.10
JUL 09...	64	15	6.4	18	1.6	52	17	23	<.10
AUG 08...	69	16	7.1	21	2.0	60	15	29	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 10...	13	130	.006	1.4	.080	.39	1.8	.080	2.7
JAN 30...	15	140	.015	1.9	.840	.90	2.8	.140	2.3
APR 01...	12	120	.028	1.3	.320	.83	2.1	.120	3.7
MAY 29...	12	140	.012	2.0	.170	.53	2.5	.150	3.4
JUL 09...	11	120	.007	1.3	.120	.43	1.7	.140	4.6
AUG 08...	11	140	.006	1.3	.140	.55	1.9	.170	4.1

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 Pottersville Reservoir, and 1.5 mi west of Pottersville.

DRAINAGE AREA.--2.18 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR-NJ-84-1: 1975(P), 1979-83(P).

GAGE.--Water-stage recorder and rock outcrop control. Datum of gage is 451.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 15, 16, Jan. 26 to Feb. 19. Records good above 2.0 ft³/s and fair below, except those for period of no gage-height record, Jan. 15, 16, Jan 26 to Feb. 19, which are poor. 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.

AVERAGE DISCHARGE.--13 years, 3.88 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/s, July 7, 1984, gage height, 3.91 ft, from rating curve extended above 20 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.03 ft³/s, Aug. 28, 29, Sept. 3, 8, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1130	*92	*1.55	No peak greater than base discharge.			

Minimum discharge, 0.64 ft³/s Sept. 25, gage height, 0.42 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.3	1.4	2.0	1.6	2.1	2.7	1.4	2.4	.99	1.2	.94
2	2.1	1.3	1.3	3.9	1.7	2.0	1.9	2.5	1.3	.97	1.0	.91
3	1.5	1.3	2.3	2.4	1.6	1.9	1.9	16	1.3	1.4	.97	.89
4	1.4	1.2	1.9	2.1	1.4	2.0	1.8	3.6	1.2	1.1	.95	.86
5	1.3	3.3	1.5	2.2	1.6	3.5	1.8	2.6	3.8	1.1	.94	.84
6	1.2	1.3	4.5	2.0	1.8	2.1	1.9	2.2	1.8	2.1	.94	.83
7	1.2	1.1	2.2	1.9	1.7	1.9	1.9	2.0	1.4	1.4	.94	.82
8	1.2	1.1	1.9	1.9	1.6	2.1	1.9	1.7	1.6	1.1	1.2	.90
9	1.4	1.1	1.6	1.7	1.5	1.9	1.9	1.5	1.5	1.1	.97	.90
10	1.3	1.1	1.7	1.6	1.5	1.9	1.8	1.5	1.3	1.1	.95	3.0
11	1.3	1.1	1.6	1.7	1.4	1.9	1.8	1.4	1.2	.98	.94	1.2
12	1.3	1.1	1.4	1.7	5.4	4.6	1.8	1.4	1.3	.95	.92	.85
13	1.2	1.1	1.4	1.7	12	2.5	1.7	1.6	1.2	1.2	.90	.81
14	1.2	1.1	1.4	1.6	3.6	2.2	1.7	1.3	1.1	1.0	.90	.78
15	1.2	1.1	1.5	1.6	2.6	2.1	1.8	1.2	1.1	1.1	.88	.76
16	1.2	1.1	1.4	1.5	2.3	2.0	1.8	1.3	4.8	1.1	.87	.74
17	1.2	1.1	1.4	1.6	2.2	2.0	1.6	1.6	1.7	.94	.85	.73
18	1.2	1.1	1.4	1.7	2.3	1.9	1.5	3.9	1.4	.90	.87	.73
19	1.2	1.1	1.8	1.7	2.6	1.9	1.7	1.7	1.2	.89	.91	.72
20	1.3	1.1	1.6	1.6	3.4	1.9	1.9	1.6	1.1	.89	.90	.71
21	1.2	1.1	3.1	1.7	2.9	1.8	1.6	3.1	1.1	.87	.91	.71
22	3.7	1.1	3.9	1.7	3.5	1.8	1.5	2.9	1.0	1.3	.87	.72
23	3.0	1.1	1.9	1.7	6.1	2.0	1.5	1.8	1.0	.89	.84	.73
24	1.7	1.1	1.8	1.7	4.2	1.9	1.6	1.7	1.5	.85	.83	.76
25	1.4	1.1	1.8	1.7	3.1	1.9	1.6	1.5	1.1	.84	1.6	.71
26	1.7	1.1	1.6	1.5	2.5	1.8	1.5	1.4	1.0	4.8	1.4	1.1
27	1.4	1.1	1.8	1.5	2.4	1.8	1.4	1.4	1.0	4.6	.98	22
28	1.5	1.1	2.1	1.4	2.2	1.8	1.4	1.5	1.1	1.3	.93	2.0
29	2.4	4.0	3.2	1.4	---	1.9	1.4	1.4	1.1	1.1	.89	1.3
30	1.5	1.6	2.1	1.4	---	1.8	1.4	1.3	1.1	1.1	1.1	1.1
31	1.4	---	1.9	1.3	---	2.0	---	1.3	---	1.3	.99	---
TOTAL	47.7	39.5	60.4	55.1	80.7	64.9	51.7	71.3	44.7	41.26	30.34	50.05
MEAN	1.54	1.32	1.95	1.78	2.88	2.09	1.72	2.30	1.49	1.33	.98	1.67
MAX	3.7	4.0	4.5	3.9	12	4.6	2.7	16	4.8	4.8	1.6	22
MIN	1.2	1.1	1.3	1.3	1.4	1.8	1.4	1.2	1.0	.84	.83	.71
CFSM	.71	.61	.89	.82	1.32	.96	.79	1.06	.68	.61	.45	.77
IN.	.81	.67	1.03	.94	1.38	1.11	.88	1.22	.76	.70	.52	.85

CAL YR 1984 TOTAL 2231.8 MEAN 6.10 MAX 125 MIN 1.1 CFSM 2.80 IN. 38.08
WTR YR 1985 TOTAL 637.65 MEAN 1.75 MAX 22 MIN .71 CFSM .80 IN. 10.88

01399525 AXLE BROOK NEAR POTTERSVILLE, NJ
(Formerly published as Lamington (Black) River tributary No. 2 near Pottersville)

LOCATION.--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.

DRAINAGE AREA.--1.22 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year. Prior to October 1984, published as Lamington (Black) River tributary No. 2 near Pottersville.

GAGE.--Water-stage recorder. Wooden control since October 1982. Datum of gage is 172.74 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-5 and Jan. 20 to Feb. 11. Records fair except those below 1.0 ft³/s, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years, 2.27 ft³/s, 25.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 955 ft³/s, July 7, 1984, gage height, 6.30 ft, from floodmark, from rating extended above 400 ft³/s on basis of contracted-opening measurement of peak flow; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1130	*233	a*3.31	No other peak greater than base discharge.			

a From floodmark.

Minimum daily discharge, 0.03 ft³/s, July 25, Aug. 18, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.17	.81	1.4	.25	.55	1.2	.08	.75	.20	.19	.08
2	.20	.17	.73	6.7	.20	.52	.53	.45	.38	.14	.08	.07
3	.10	.18	3.0	2.5	.17	.50	.48	17	.30	.30	.07	.06
4	.08	.19	1.1	1.5	.14	.53	.50	2.2	.24	.17	.06	.05
5	.06	7.0	.73	1.8	.15	2.0	.50	1.1	1.6	.10	.05	.05
6	.07	.67	10	1.1	.16	.60	.49	.66	.48	.17	.05	.05
7	.07	.28	1.9	1.4	.14	.49	.52	.50	.35	.27	.05	.05
8	.08	.21	.86	1.1	.19	.67	.50	.50	.37	.11	.19	.05
9	.12	.21	.76	.68	.17	.51	.51	.51	.34	.10	.07	.07
10	.11	.29	.77	.53	.14	.49	.48	.52	.28	.08	.06	1.6
11	.10	.30	.73	.55	.15	.50	.52	.47	.19	.07	.06	.57
12	.10	.28	.62	.51	36	5.0	.49	.40	.18	.06	.06	.14
13	.10	.19	.54	.44	6.3	1.8	.45	.38	.11	.11	.04	.08
14	.10	.15	.39	.40	2.3	1.4	.45	.33	.09	.07	.05	.07
15	.09	.15	.60	.34	1.8	1.1	.48	.24	.08	.09	.04	.06
16	.07	.19	.45	.24	1.3	.90	.49	.29	11	.11	.04	.06
17	.08	.15	.57	.15	.96	.89	.42	.39	1.9	.07	.04	.06
18	.08	.16	.45	.18	1.0	.69	.42	1.4	.81	.05	.03	.06
19	.08	.31	1.1	.21	1.3	.55	.46	.49	.49	.05	.04	.06
20	.10	.23	.93	.18	.78	.62	.51	.42	.51	.04	.04	.06
21	.09	.19	2.8	.21	.65	.49	.44	19	.49	.04	.04	.06
22	.47	.19	7.2	.25	1.0	.49	.40	4.7	.39	.07	.04	.06
23	1.2	.18	1.4	.23	2.2	.54	.36	1.4	.35	.04	.03	.06
24	.15	.17	.89	.22	2.0	.48	.32	.98	1.1	.04	.03	.08
25	.19	.19	.85	.19	1.6	.49	.35	.73	.46	.03	.09	.09
26	.18	.19	.66	.16	1.1	.50	.28	.54	.34	2.8	.14	.12
27	.18	.19	.75	.14	1.0	.50	.18	.49	.30	2.8	.06	36
28	.67	.19	1.4	.14	.60	.50	.11	.49	.32	.20	.05	.46
29	4.9	5.4	5.6	.14	---	.50	.10	.49	.34	.09	.04	.22
30	.33	.96	2.1	.12	---	.51	.09	.51	.33	.08	1.2	.27
31	.16	---	1.0	.15	---	.52	---	.52	---	.19	.22	---
TOTAL	10.42	19.33	51.69	23.86	63.75	25.83	13.03	58.18	24.87	8.74	3.25	40.77
MEAN	.34	.64	1.67	.77	2.28	.83	.43	1.88	.83	.28	.10	1.36
MAX	4.9	7.0	10	6.7	36	5.0	1.2	19	11	2.8	1.2	36
MIN	.06	.15	.39	.12	.14	.48	.09	.08	.08	.03	.03	.05
CFSM	.28	.52	1.37	.63	1.87	.68	.35	1.54	.68	.23	.08	1.11
IN.	.32	.59	1.58	.73	1.94	.79	.40	1.77	.76	.27	.10	1.24

CAL YR 1984 TOTAL 976.84 MEAN 2.67 MAX 96 MIN .03 CFSM 2.19 IN. 29.79
WTR YR 1985 TOTAL 343.72 MEAN .94 MAX 36 MIN .03 CFSM .77 IN. 10.48

01399690 SOUTH BRANCH ROCKAWAY CREEK AT WHITEHOUSE, NJ

LOCATION.--Lat 40°37'24", long 74°46'01", Hunterdon County, Hydrologic Unit 02030105, on right upstream wingwall of bridge on U.S. Route 22, 0.6 mi north of Whitehouse Station, 0.9 mi west of Whitehouse, and 0.3 mi upstream from mouth.

DRAINAGE AREA.--13.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1964-67. March 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 113.52 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 22-26, Nov. 26, 27, Jan. 11-25, Feb. 3-11, May 28 to June 21, Aug. 2 to Sept. 26. Records fair except those for periods of ice effect, Jan. 11-25 and Feb.3-11, and for periods of no gage-height record, Oct. 22-26, Nov. 26, 27, May 28 to June 21, and Aug. 2 to Sept. 26, which are poor. Releases from Round Valley Reservoir enter stream 1,700 ft upstream of gage (see Raritan River basin, reservoirs in). Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years, 36.8 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,190 ft³/s, July 7, 1984, gage height, 15.89 ft; minimum, 0.18 ft³/s, Oct. 3, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 724 ft³/s, Sept. 27, gage height, 9.44 ft; minimum, 0.18 ft³/s, Oct. 3; minimum gage height, 3.62 ft, Apr. 27, 29, 30 and May 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	3.9	4.6	17	2.9	9.1	14	1.8	39	10	27	23
2	2.8	3.9	3.5	38	5.4	8.9	7.3	4.8	15	10	19	14
3	10	3.5	15	29	5.6	7.1	6.5	122	4.2	26	16	11
4	13	3.3	12	18	4.8	7.7	5.9	31	3.8	15	15	8.2
5	11	48	5.2	21	2.5	25	5.4	17	44	12	14	6.4
6	8.6	12	64	13	2.6	11	7.1	14	4.7	19	13	5.2
7	7.9	8.5	28	14	2.8	8.1	5.1	11	23	25	12	4.4
8	7.7	7.6	12	13	2.6	11	4.8	9.3	12	16	32	8.2
9	10	7.2	8.9	6.0	2.4	9.5	4.3	8.1	23	18	25	19
10	8.5	7.1	8.7	5.2	2.3	8.4	3.6	7.5	21	16	15	36
11	6.7	7.4	8.4	3.7	2.4	8.5	3.9	6.8	16	14	12	46
12	5.9	7.0	6.4	6.8	110	37	3.8	5.9	12	12	13	14
13	5.4	6.3	5.6	5.4	67	19	3.1	5.7	11	34	11	10
14	6.0	5.8	4.7	3.6	25	14	3.0	4.9	8.6	22	8.6	7.4
15	5.0	5.7	6.5	3.2	17	11	3.0	3.9	6.2	32	6.5	4.8
16	5.0	6.1	5.0	2.7	12	9.5	3.4	4.4	108	32	5.6	3.4
17	5.0	5.6	5.0	5.4	9.1	9.6	2.5	5.8	82	18	5.2	3.2
18	5.7	5.7	4.5	3.6	9.2	8.6	2.1	32	51	12	4.0	2.9
19	6.0	6.3	6.3	2.9	12	7.6	2.2	7.4	30	12	4.2	2.6
20	6.9	5.6	7.8	2.4	11	8.1	3.6	4.7	18	13	4.6	2.5
21	6.4	5.4	11	2.8	8.7	7.4	2.4	8.3	12	9.3	4.0	2.8
22	28	5.3	53	3.2	16	7.2	2.1	24	5.7	30	3.4	3.6
23	221	5.9	19	4.6	38	8.6	1.9	6.4	5.8	12	3.2	5.4
24	48	6.4	12	5.8	32	7.8	2.0	5.2	21	6.6	1.8	6.6
25	23	6.2	11	6.7	25	7.6	2.0	3.5	22	8.5	17	7.8
26	21	5.1	6.7	5.1	16	6.5	1.9	2.7	8.2	47	58	8.7
27	8.0	3.9	8.5	4.7	15	6.8	1.9	2.3	7.5	100	24	276
28	11	2.6	15	4.0	9.5	7.2	1.8	4.6	11	24	12	38
29	39	22	44	2.7	---	7.1	1.8	9.8	14	16	7.6	18
30	5.7	6.2	23	2.1	---	6.0	1.7	5.2	19	25	12	13
31	4.5	---	14	2.0	---	6.3	---	4.8	---	21	87	---
TOTAL	558.2	235.5	439.3	257.6	468.8	317.2	114.1	384.8	658.7	667.4	492.7	612.1
MEAN	18.0	7.85	14.2	8.31	16.7	10.2	3.80	12.4	22.0	21.5	15.9	20.4
MAX	221	48	64	38	110	37	14	122	108	100	87	276
MIN	2.8	2.6	3.5	2.0	2.3	6.0	1.7	1.8	3.8	6.6	1.8	2.5

CAL YR 1984 TOTAL 12493.1 MEAN 34.1 MAX 600 MIN 2.6
WTR YR 1985 TOTAL 5206.4 MEAN 14.3 MAX 276 MIN 1.7

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 mi².

WATER-QUALITY RECORDS

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 03...	1000	16	234	8.2	10.5	11.6	104	E1.6	70	540
FEB 14...	1045	124	--	7.7	.0	13.7	95	E1.9	220	920
APR 03...	1220	22	202	8.9	5.5	15.0	121	E1.5	70	23
MAY 21...	1230	16	194	6.9	17.5	9.5	100	<.8	1100	1600
JUL 10...	1000	--	--	8.4	22.5	10.4	121	E1.3	330	280
AUG 05...	1045	--	243	8.4	21.5	9.8	111	E1.6	310	350

DATE	HARD-NESS (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 03...	91	22	8.8	9.9	1.7	68	20	14	<.10
FEB 14...	56	14	5.1	14	2.1	29	19	26	<.10
APR 03...	76	19	7.0	9.1	1.3	54	22	15	<.10
MAY 21...	76	19	6.9	9.2	1.5	53	22	14	.10
JUL 10...	86	21	8.2	11	2.0	69	22	17	.10
AUG 05...	90	22	8.5	13	2.4	70	22	22	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 03...	13	130	.007	1.6	.050	.22	1.8	.120	1.4
FEB 14...	9.8	110	.011	1.4	<.050	.39	1.8	.120	3.7
APR 03...	11	120	.016	1.1	.090	.42	1.5	.090	2.6
MAY 21...	14	120	.028	1.3	.130	.37	1.6	.070	2.8
JUL 10...	9.1	130	.016	1.3	.150	.36	1.7	.180	2.3
AUG 05...	12	140	.015	1.5	.080	.31	1.8	.210	2.5

01399700 ROCKAWAY CREEK AT WHITEHOUSE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	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)
OCT 03...	1000	<.5	<.1	1.2	<10	1	<1	<10	30	<1	<1
MAY 21...	1230	<.5	--	--	20	<1	--	<10	40	1	--

DATE	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)	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)
OCT 03...	<10	5	<10	2	3	330	4700	3	<10	10	350
MAY 21...	10	--	--	3	--	330	--	11	--	20	--

DATE	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)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 03...	<.1	<.01	1	<10	<1	<1	20	20	<1	<1	<1.0
MAY 21...	<.1	--	1	--	<1	--	20	--	22	--	--

DATE	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)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 03...	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
MAY 21...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 03...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
MAY 21...	--	--	--	--	--	--	--	--	--	--	--

01399780 LAMINGTON (BLACK) 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 mi².

WATER QUALITY RECORDS

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT										
03...	1200	E70	235	8.5	10.5	12.3	111	E1.5	110	350
FEB										
14...	1300	E181	185	7.1	.5	12.6	88	--	230	>2400
APR										
03...	1030	E109	216	8.0	5.0	14.4	115	E1.5	50	4
MAY										
29...	1040	E48	224	7.2	18.0	8.7	92	E2.0	310	240
JUL										
18...	0950	E55	250	7.5	21.5	8.6	97	E1.6	230	920
AUG										
21...	0950	E24	258	6.7	27.0	7.4	93	<.8	490	540

DATE	HARD-NESS (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									
03...	83	20	8.0	13	1.6	62	19	19	<.10
FEB									
14...	49	12	4.7	17	2.3	26	17	30	<.10
APR									
03...	73	18	6.7	13	1.3	52	20	21	<.10
MAY									
29...	78	19	7.4	13	1.6	60	20	19	.10
JUL									
18...	79	19	7.6	15	1.9	69	19	23	.10
AUG									
21...	96	23	9.4	16	2.0	78	20	21	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
03...	12	130	.006	1.2	.080	.31	1.5	.070	2.0
FEB									
14...	9.0	110	.018	1.3	.290	.80	2.1	.110	--
APR									
03...	9.4	120	.023	1.2	.070	.38	1.5	.060	3.2
MAY									
29...	12	130	.014	1.2	.180	.33	1.5	.070	3.1
JUL									
18...	9.1	140	.025	.98	.040	.50	1.5	.140	2.8
AUG									
21...	8.0	150	.023	1.0	.090	.49	1.5	.130	3.6

01399780 LAMINGTON (BLACK) RIVER AT BURNT MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
OCT 03...	1200	<.5	<10	1	<10	30	<1	10

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 03...	2	270	2	20	<.1	<1	<1	10

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1936, nonrecording gage at site 30 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 10-13 and Jan. 21-28. Records good except those above 5,000 ft³/s, which are fair. Regulation by Round Valley Reservoir. Several measurements of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--62 years, 308 ft³/s unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,600 ft³/s, Aug. 28, 1971, gage height, 15.47 ft, from high-water mark in gage house, from rating curve extended above 15,000 ft³/s; minimum observed, about 3 ft³/s, Nov. 28, 1930, gage height, 1.72 ft, result of freezeup, minimum daily, 7.5 ft³/s, Sept. 26, 27, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 13	0045	*9,750	*9.98	Sept. 27	2045	7,010	8.76

Minimum discharge, 35 ft³/s, Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	117	134	245	122	199	230	80	218	88	169	70
2	133	112	119	451	149	191	178	105	148	80	93	62
3	101	102	168	400	134	171	150	1610	126	118	76	60
4	79	93	265	272	105	162	144	591	116	104	69	56
5	74	621	154	291	105	295	132	347	334	83	64	49
6	72	248	822	229	118	230	138	272	284	76	62	44
7	70	152	418	221	113	178	131	217	167	132	60	40
8	69	128	224	227	102	184	126	167	146	96	120	39
9	74	120	187	132	100	184	122	146	146	80	95	120
10	75	116	176	140	100	161	113	136	129	73	70	177
11	72	113	175	160	110	157	112	130	115	67	72	222
12	69	120	158	140	1580	484	112	122	111	59	62	86
13	66	105	144	150	1980	351	106	120	113	79	60	64
14	63	96	132	132	481	243	104	114	106	76	111	55
15	64	89	141	127	319	208	107	101	99	72	66	51
16	64	90	138	94	259	178	112	98	572	81	54	49
17	63	86	134	124	248	171	108	106	532	79	51	47
18	64	85	128	140	227	163	100	472	227	70	48	46
19	65	96	130	138	229	154	99	223	191	57	49	45
20	69	93	182	117	236	152	118	170	150	53	50	43
21	70	87	160	110	204	148	118	240	120	51	49	40
22	90	89	748	120	228	140	105	704	102	71	47	38
23	587	78	309	130	448	150	99	226	97	68	44	42
24	179	79	225	150	478	155	97	185	138	53	40	49
25	136	79	214	160	396	147	97	162	179	51	77	53
26	148	78	174	140	306	132	97	141	105	176	192	53
27	152	78	169	130	282	127	91	129	96	935	97	3240
28	127	79	194	120	229	127	86	124	94	185	66	687
29	689	326	459	126	---	132	86	136	99	128	60	276
30	190	191	375	111	---	129	83	118	112	121	63	234
31	137	---	242	109	---	128	---	112	---	152	110	---
TOTAL	3989	3946	7398	5336	9388	5731	3501	7604	5172	3614	2346	6137
MEAN	129	132	239	172	335	185	117	245	172	117	75.7	205
MAX	689	621	822	451	1980	484	230	1610	572	935	192	3240
MIN	63	78	119	94	100	127	83	80	94	51	40	38

CAL YR 1984 TOTAL 190397 MEAN 520 MAX15300 MIN 63
WTR YR 1985 TOTAL 64162 MEAN 176 MAX 3240 MIN 38

01400120 RARITAN RIVER AT RARITAN, NJ

LOCATION.--Lat 40°33'52", long 74°38'10", Somerset County, Hydrologic Unit 02030105, at bridge on South Branch-Raritan Road in Raritan, 1.7 mi upstream from Peters Brook, 3.5 mi northeast of South Branch, and 3.6 mi southeast of North Branch.

DRAINAGE AREA.--474 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 09...	1300	E207	215	8.7	15.5	11.5	113	3.3	20	220
JAN 23...	1100	E735	228	7.8	.0	14.1	97	2.4	34	2
MAR 19...	1130	E269	247	9.0	5.0	14.8	115	.9	2	<2
MAY 28...	1100	E200	246	7.8	24.0	7.6	91	1.5	330	330
JUL 01...	1030	E153	265	8.5	22.5	8.7	100	--	50	80
AUG 05...	1100	E167	265	8.3	25.0	8.2	98	.7	20	23

DATE	HARD-NESS (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 09...	81	20	7.5	11	1.5	59	24	15	.10
JAN 23...	89	22	8.2	14	1.6	55	26	22	.10
MAR 19...	85	21	7.8	15	1.4	52	26	25	<.10
MAY 28...	86	21	8.1	13	2.0	54	28	21	<.10
JUL 01...	90	22	8.5	14	1.8	64	25	22	.10
AUG 05...	96	24	8.8	14	2.4	69	29	23	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 09...	6.2	120	.017	.64	.090	.39	1.0	.070	1.9
JAN 23...	9.7	140	.014	1.4	.150	.48	1.8	.070	2.5
MAR 19...	6.7	130	.020	1.1	.060	.43	1.5	.060	--
MAY 28...	10	140	.019	1.4	.230	.58	2.0	.110	3.2
JUL 01...	7.0	140	.015	1.1	.110	.38	1.5	.110	3.4
AUG 05...	9.5	150	.015	.93	.120	.54	1.5	.160	2.8

01400120 RARITAN RIVER AT RARITAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 28...	1100	<.5	40	<1	<10	40	<1	10	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)	PHENOLS TOTAL (UG/L)
MAY 28...	220	6	50	<.1	2	<1	40	8

01400300 PETERS BROOK NEAR RARITAN, NJ

LOCATION.--Lat 40°35'35", long 74°40'00", 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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORDS.--May 1978 to current year.

REVISED RECORD.--WDR NJ-79-1: 1978(P).

GAGE.--Water-stage recorder. Datum of gage is 68.713 ft above National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--No estimated daily discharges. Records poor. Several measurements of water temperature were made during the year. Recording rain-gage and gage-height telemeter at station.

AVERAGE DISCHARGE.--7 years, 6.07 ft³/s, 19.67 in/yr.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,090 ft³/s, July 7, 1984, gage height, 8.15 ft; no flow part or all of some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1545	615	6.03	Sept. 10	1730	648	6.12
July 26	2345	502	5.42	Sept. 27	1135	*1,000	*7.76

No flow part of Apr. 16, May 8, 10, 15, June 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	.41	.61	5.0	3.9	.84	5.8	.09	4.1	.25	1.4	.32
2	2.2	.48	.45	14	5.3	.75	1.2	1.4	.21	.18	.51	.31
3	.22	.52	5.5	6.3	1.4	.50	.80	78	.15	.55	.31	.29
4	.15	.37	2.8	4.6	.39	.74	.67	4.3	.09	.24	.20	.25
5	.09	42	1.0	7.7	.32	4.5	.57	.95	22	.18	.22	.25
6	.18	3.3	55	4.6	.35	.76	1.4	.62	2.6	.19	.28	.22
7	.11	1.1	6.0	5.2	.35	.44	.49	.24	.40	.41	.26	.22
8	.12	.62	3.2	4.6	.32	.78	.40	.19	.96	.17	5.5	.26
9	.22	.53	2.1	1.9	.30	.57	.35	.31	.15	.16	.58	8.4
10	.23	.45	1.9	1.1	.38	.43	.30	.15	.08	.11	.40	47
11	.19	1.8	1.7	1.0	.76	.44	.35	.12	.05	.09	.31	2.3
12	.16	.98	1.2	.91	140	13	.28	.13	.05	.06	.30	.61
13	.15	.41	1.0	.78	12	3.7	.26	.09	.07	.52	.23	.42
14	.19	.40	.78	.69	5.2	2.0	.32	.11	.05	.19	7.1	.34
15	.17	.42	2.2	.70	3.1	1.2	.44	1.0	.08	.19	.59	.26
16	.15	.46	1.1	.40	1.4	.88	.31	1.1	34	.61	.40	.23
17	.16	.59	1.1	.49	.90	.96	.26	2.5	3.1	.21	.29	.22
18	.22	.41	.91	.52	.97	.84	.21	10	1.1	.08	.25	.22
19	.20	.59	2.6	.53	1.7	.70	.19	.93	.66	.06	.25	.21
20	.26	.34	2.7	.42	1.2	.80	.52	1.4	.51	.06	.25	.24
21	.26	.24	6.3	.29	.70	.67	.26	4.4	.42	.05	.28	.15
22	14	.23	15	.33	2.2	.59	.41	5.6	.34	1.8	.25	.16
23	9.7	.22	4.4	.36	5.9	1.3	.17	1.3	.31	.12	.23	.21
24	1.5	.21	3.0	.36	5.5	.85	.15	.90	3.7	.07	.21	.37
25	.38	.19	3.3	.40	4.3	.71	.15	.30	.76	.06	6.1	.23
26	1.8	.15	1.7	.34	3.0	.54	.15	.17	.39	38	43	6.4
27	.49	.48	2.0	.29	2.3	.58	.16	.11	.29	26	1.1	205
28	2.9	.23	7.1	.26	.97	.58	.15	2.3	.40	.92	.60	6.5
29	46	7.6	15	.27	---	.69	.14	1.7	.39	.61	.45	2.5
30	2.1	.92	6.3	.26	---	.52	.13	.18	.27	.82	.66	1.6
31	.61	---	4.3	.25	---	.63	---	.10	---	3.9	.38	---
TOTAL	87.31	66.65	162.25	64.85	205.11	42.49	16.99	120.69	77.68	76.86	72.89	285.69
MEAN	2.82	2.22	5.23	2.09	7.33	1.37	.57	3.89	2.59	2.48	2.35	9.52
MAX	46	42	55	14	140	13	5.8	78	34	38	43	205
MIN	.09	.15	.45	.25	.30	.43	.13	.09	.05	.05	.20	.15
CFSM	.67	.53	1.25	.50	1.75	.33	.14	.93	.62	.59	.56	2.27
IN.	.78	.59	1.44	.58	1.82	.38	.15	1.07	.69	.68	.65	2.54

CAL YR 1984 TOTAL 2601.43 MEAN 7.11 MAX 249 MIN .06 CFSM 1.70 IN. 23.10
WTR YR 1985 TOTAL 1279.46 MEAN 3.51 MAX 205 MIN .05 CFSM .84 IN. 11.36

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 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 58.37 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 10-18, Nov. 6-26, Jan. 1, Jan. 8 to Feb. 11. Records good above 0.5 ft³/s and fair below, except those for periods of estimated daily discharges, Nov. 6-26, and frozen well, Jan. 8 to Feb. 11, which are poor. Several measurements of water temperature were made during the year.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 455 ft³/s, May. 30, 1984, gage height 4.28 ft; no flow part or all of many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1620	218	3.28	Sept. 10	1710	330	3.76
June 16	1910	265	3.48	Sept. 27	1145	*452	*4.27

No flow part or all of Oct. 1-19, June 26 to July 3, and July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.11	.17	.79	.76	.35	1.4	.11	1.1	.04	.16	.06
2	.13	.14	.14	4.5	1.0	.36	.31	.86	.12	.04	.07	.06
3	.00	.11	1.4	1.2	.25	.24	.23	30	.24	.12	.06	.06
4	.00	.12	.39	.79	.07	.38	.21	1.2	.12	.04	.06	.06
5	.00	9.7	.19	1.5	.05	1.1	.20	.57	6.8	.04	.06	.06
6	.00	.35	15	.95	.05	.40	.25	.36	.39	.08	.05	.06
7	.00	.17	1.1	1.0	.05	.30	.17	.28	.15	.06	.05	.06
8	.00	.11	.54	.64	.05	.45	.17	.22	.35	.04	1.1	.11
9	.01	.08	.30	.23	.05	.33	.16	.19	.15	.04	.07	3.8
10	.00	.06	.29	.18	.05	.25	.13	.19	.12	.04	.06	14
11	.00	.31	.28	.17	.23	.23	.15	.18	.11	.03	.06	.42
12	.00	.11	.23	.16	35	3.1	.13	.17	.12	.03	.05	.12
13	.00	.06	.18	.15	4.0	.78	.13	.16	.11	.10	.05	.09
14	.00	.06	.17	.13	2.7	.46	.13	.14	.10	.03	1.7	.08
15	.00	.06	.30	.13	1.8	.34	.15	.13	.11	.02	.06	.07
16	.00	.07	.20	.07	1.5	.28	.16	.17	16	.11	.05	.07
17	.00	.09	.20	.09	1.1	.28	.13	.25	1.1	.05	.04	.07
18	.00	.09	.17	.10	.87	.23	.13	2.8	.41	.07	.04	.06
19	.01	.12	.39	.10	.68	.21	.13	.18	.20	.07	.04	.07
20	.02	.11	.31	.08	.45	.23	.24	.13	.16	.07	.04	.06
21	.02	.10	2.0	.06	.34	.20	.13	1.2	.13	.07	.07	.06
22	3.4	.09	3.8	.05	.62	.19	.13	.87	.12	.49	.04	.06
23	.87	.09	.70	.07	1.7	.32	.12	.29	.12	.04	.04	.06
24	.15	.11	.41	.07	1.7	.24	.11	.20	1.2	.04	.04	.14
25	.11	.10	.55	.08	1.3	.22	.11	.16	.09	.04	1.7	.06
26	.31	.10	.29	.07	.96	.17	.11	.13	.06	4.2	7.8	2.2
27	.11	.11	.38	.06	.78	.17	.11	.12	.06	1.1	.14	61
28	.88	.13	1.8	.05	.46	.18	.11	.36	.09	.08	.09	.78
29	6.7	1.7	4.0	.05	---	.21	.11	.19	.06	.06	.08	.23
30	.18	.22	1.2	.05	---	.17	.11	.12	.06	.32	.11	.15
31	.12	---	.69	.05	---	.27	---	.13	---	.94	.07	---
TOTAL	13.30	14.78	37.77	13.62	58.57	12.64	5.86	42.06	29.95	8.50	14.05	84.18
MEAN	.43	.49	1.22	.44	2.09	.41	.20	1.36	1.00	.27	.45	2.81
MAX	6.7	9.7	15	4.5	35	3.1	1.4	30	16	4.2	7.8	61
MIN	.00	.06	.14	.05	.05	.17	.11	.11	.06	.02	.04	.06
CFSM	.56	.64	1.58	.57	2.71	.53	.26	1.77	1.30	.35	.58	3.65
IN.	.64	.71	1.82	.66	2.83	.61	.28	2.03	1.45	.41	.68	4.07

CAL YR 1984 TOTAL 618.62 MEAN 1.69 MAX 63 MIN .00 CFSM 2.19 IN. 29.89
WTR YR 1985 TOTAL 335.28 MEAN .92 MAX 61 MIN .00 CFSM 1.19 IN. 16.20

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 (Finderive Avenue) at Manville, and 1.4 mi upstream from Millstone River.

DRAINAGE AREA.--490 mi².

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), 1972(P), 1973(P).

GAGE.--Water-stage recorder. Datum of gage is 20.61 ft above National Geodetic Vertical Datum of 1929. 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. Since 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.--Estimated daily discharges: Jan. 10 to Feb. 11. Records good except those for period of ice effect, Jan. 10 to Feb. 11, which are fair. 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 (see Raritan River basin, diversions). 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.

AVERAGE DISCHARGE.--67 years, (water years 1904-06, 1922-85), 765 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,300 ft³/s, Aug. 28, 1971, gage height, 23.8 ft, from floodmark (backwater from Millstone River), from rating curve extended above 14,000 ft³/s on basis of slope-area measurements at gage heights, 14.9 and 20.42 ft; minimum daily discharge, 17 ft³/s, Sept. 19, 1964 (does not include water diverted to Johns-Manville Plant).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	0015	*11,500	*13.33	No other peak greater than base discharge.			

Minimum discharge, 104 ft³/s, Jan. 9, gage height, 3.74 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	284	247	292	594	370	412	448	209	597	189	865	278
2	309	254	258	819	480	367	422	272	409	177	246	186
3	276	219	311	1020	430	305	325	3250	267	275	178	179
4	216	230	509	704	360	249	305	1830	226	274	162	211
5	233	1110	351	714	330	514	288	869	598	238	195	222
6	241	623	1400	588	340	530	289	615	819	244	231	235
7	245	368	1120	543	330	348	282	485	388	344	249	251
8	279	294	588	555	290	400	262	368	309	233	432	288
9	252	266	460	392	220	416	255	296	338	196	300	551
10	230	261	407	450	300	369	241	262	265	209	189	543
11	228	273	398	500	390	342	238	243	217	214	212	487
12	231	266	374	550	2380	717	245	222	198	233	230	227
13	255	231	338	520	4810	811	230	208	189	345	225	145
14	271	228	306	410	1580	543	221	202	184	324	400	169
15	266	235	315	370	1070	460	240	179	192	286	226	209
16	256	244	317	290	860	403	239	169	876	283	213	220
17	250	242	301	350	771	381	229	183	1360	194	268	242
18	255	246	293	425	738	360	223	1520	549	188	287	226
19	256	264	286	460	733	327	228	977	456	190	273	214
20	271	250	360	370	761	318	279	518	316	229	250	232
21	250	235	357	300	699	311	265	422	246	238	273	254
22	260	243	1200	370	707	294	227	1280	209	334	266	255
23	1250	253	846	490	1100	311	219	644	205	280	237	255
24	484	254	566	460	1620	335	217	499	274	203	227	269
25	299	283	515	410	1310	317	226	391	614	234	372	236
26	302	275	421	410	895	282	228	320	245	554	807	220
27	313	270	399	375	752	265	216	271	194	1790	328	5250
28	282	243	456	335	540	266	241	247	183	583	180	5120
29	1270	525	831	320	---	271	236	276	198	252	183	1040
30	421	459	953	290	---	270	215	228	231	221	195	657
31	286	---	624	255	---	261	---	206	---	293	291	---
TOTAL	10521	9391	16152	14639	25166	11755	7779	17661	11352	9847	8990	18871
MEAN	339	313	521	472	899	379	259	570	378	318	290	629
MAX	1270	1110	1400	1020	4810	811	448	3250	1360	1790	865	5250
MIN	216	219	258	255	220	249	215	169	183	177	162	145

CAL YR 1984 TOTAL 420691 MEAN 1149 MAX 16600 MIN 216
WTR YR 1985 TOTAL 162124 MEAN 444 MAX 5250 MIN 145

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.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 12...	1030	227	241	8.4	16.0	11.1	111	1.3	--	--
JAN 22...	1215	444	265	8.0	.0	14.6	100	3.0	13	<2
MAR 20...	1100	318	245	9.4	6.5	16.0	131	1.2	<20	<20
MAY 30...	1130	227	250	8.4	22.0	10.0	114	1.3	50	330
JUL 02...	1100	175	262	8.4	23.0	9.7	113	--	70	50
AUG 06...	1100	237	280	8.5	25.5	9.1	111	.7	170	50

DATE	HARD-NESS (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 12...	89	22	8.3	12	1.8	65	27	17	<.10
JAN 22...	100	25	9.1	19	1.7	61	30	30	.10
MAR 20...	85	21	7.8	14	1.4	54	26	25	<.10
MAY 30...	92	23	8.5	15	1.5	57	28	23	.10
JUL 02...	90	22	8.6	15	2.1	64	24	21	.10
AUG 06...	96	24	8.8	14	2.4	70	27	22	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 12...	4.9	130	.011	.87	.105	.20	1.1	.070	1.8
JAN 22...	11	160	.014	1.7	<.050	.38	2.1	.070	2.2
MAR 20...	6.3	130	.021	1.1	.100	.36	1.5	.060	2.6
MAY 30...	9.8	140	.022	1.3	.200	.37	1.7	.110	3.1
JUL 02...	6.3	140	.013	.91	.070	.38	1.3	.100	--
AUG 06...	8.7	150	.013	.80	.060	.43	1.2	.140	8.2

01400500 RARITAN RIVER AT MANVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 12...	1030	<.5	<10	1	<10	40	<1	10	<1
MAY 30...	1130	<.5	20	<1	<10	<20	<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)	PHENOLS TOTAL (UG/L)
OCT 12...	260	<1	30	<.1	4	<1	20	<1
MAY 30...	350	3	30	<.1	2	<1	30	<1

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 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960 to 1964, June 1981 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
FEB 13...	1300	E54	103	6.2	1.0	11.4	81	E2.3	20	>2400
MAR 19...	1240	E8.4	102	6.1	5.0	13.6	105	E1.6	<20	5
JUN 10...	1300	E7.7	104	6.4	20.0	7.9	--	1.2	90	>2400
JUL 01...	0930	E4.8	94	5.7	17.0	9.4	97	E2.1	120	>2400
AUG 06...	0940	E4.5	--	5.9	18.0	9.1	96	E1.2	80	1600

DATE	HARD-NESS (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)
FEB 13...	23	4.7	2.7	6.1	3.7	3.0	15	13	.10
MAR 19...	26	5.4	3.1	6.0	2.0	5.0	15	13	<.10
JUN 10...	27	5.7	3.2	5.1	1.6	11	10	9.9	.30
JUL 01...	27	5.7	3.2	4.7	1.9	12	9.0	10	.20
AUG 06...	27	5.8	3.1	4.6	--	13	9.8	9.7	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 13...	5.6	53	.048	1.5	.400	1.1	2.7	.420	4.0
MAR 19...	8.2	56	.007	1.5	.080	.34	1.8	.060	1.1
JUN 10...	10	52	.021	1.1	.220	.45	1.6	.110	3.1
JUL 01...	9.1	51	.010	1.1	.110	.33	1.4	.120	3.3
AUG 06...	9.5	--	.006	.91	.060	.39	1.3	--	2.7

01400540 MILLSTONE RIVER NEAR MANALAPAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 10...	1300	<.5	<10	1	<10	20	<1	70	<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)	PHENOLS TOTAL (UG/L)
JUN 10...	2700	3	60	<.1	8	<1	30	<1

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 mi².

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 24...	0945	--	256	6.9	.0	11.2	76	2.4	20	50
MAR 19...	0930	--	209	6.9	4.5	11.3	86	3.2	490	700
MAY 22...	1230	E44	196	7.0	20.5	5.2	58	6.2	2400	3500
JUL 16...	1130	E93	216	6.9	24.0	3.4	41	2.3	700	2200
AUG 08...	1245	E57	211	7.0	23.0	4.3	50	10	3500	16000

DATE	HARD-NESS (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 24...	51	12	5.0	18	3.6	8.0	23	30	.30
MAR 19...	46	11	4.6	14	3.2	7.0	25	25	.20
MAY 22...	40	9.6	3.9	15	3.9	10	21	21	.30
JUL 16...	48	12	4.5	17	4.3	20	20	23	.30
AUG 08...	44	11	4.1	15	4.4	12	25	21	.30

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 24...	10	110	.022	3.1	2.83	3.2	6.3	.370	2.6
MAR 19...	7.4	95	.031	1.9	1.56	2.3	4.2	.410	4.0
MAY 22...	7.7	88	.190	2.1	2.09	3.8	5.8	.680	5.1
JUL 16...	4.0	97	.380	4.7	.310	.81	5.5	.370	--
AUG 08...	8.3	96	.275	3.3	.920	1.7	4.9	.350	5.6

01400650 MILLSTONE RIVER AT GROVERS MILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 22...	1230	<.5	60	2	<10	60	<1	10	7

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)	PHENOLS TOTAL (UG/L)
MAY 22...	3500	18	150	<.1	6	<1	40	1

01401000 STONY BROOK AT PRINCETON, NJ

LOCATION.--Lat 40°19'59", long 74°40'56", Mercer County, Hydrologic Unit 02030105, at bridge on U.S. Highway 206, 1.6 mi southwest of Princeton, and 4.0 mi upstream from Carnegie Lake.

DRAINAGE AREA.--44.5 mi².

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 National Geodetic Vertical Datum of 1929 (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.

AVERAGE DISCHARGE.--32 years, 64.0 ft³/s, 19.54 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,960 ft³/s, Aug. 28, 1971, gage height, 14.26 ft, from rating curve extended above 4,000 ft³/s on basis of contracted-opening measurement of peak flow; no flow many days in August and September 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 13	0600	2190	7.27	Sept. 27	1745	*2,500	*7.87

Minimum discharge, 0.97 ft³/s, Oct. 16, Sept. 21, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	4.4	8.4	32	9.9	34	125	5.5	232	5.5	192	5.5
2	13	4.1	6.6	46	35	32	62	7.4	47	4.6	24	4.7
3	6.5	3.7	8.4	67	31	30	38	523	22	4.0	12	4.1
4	3.2	3.1	14	31	20	27	33	141	16	3.3	7.8	3.6
5	2.3	54	12	29	10	58	30	62	36	6.3	5.9	3.0
6	2.2	29	137	25	9.2	50	28	40	61	4.4	4.8	2.4
7	1.8	12	82	24	8.8	30	24	35	25	3.5	4.3	1.9
8	1.5	7.5	29	27	8.5	34	21	28	19	4.8	62	2.5
9	1.8	5.8	21	16	8.2	39	20	21	20	4.1	30	12
10	1.8	5.0	18	14	8.0	31	18	19	17	3.3	13	14
11	2.0	9.0	17	13	10	27	18	17	12	2.8	8.5	11
12	1.9	12	15	13	578	62	18	15	9.6	2.2	6.4	5.5
13	1.5	7.6	13	12	1620	74	16	13	8.8	2.3	5.0	3.8
14	1.5	5.4	12	11	319	40	14	12	7.4	1.7	4.2	2.5
15	1.7	4.6	13	11	59	32	15	11	6.2	1.6	3.6	1.9
16	4.1	3.9	13	6.4	39	27	15	8.5	26	19	3.0	1.6
17	3.4	3.8	12	7.6	30	26	15	10	22	8.7	2.4	1.5
18	1.8	4.4	12	8.6	28	25	12	204	12	4.6	1.9	1.4
19	1.3	4.9	12	8.7	31	21	10	59	9.7	3.0	1.9	1.3
20	1.2	5.1	13	7.2	37	20	11	28	8.0	2.0	2.1	1.1
21	1.3	4.4	15	6.3	31	20	11	23	8.1	1.5	3.3	1.0
22	1.7	4.0	51	6.5	38	17	10	83	5.9	2.3	3.1	1.0
23	4.6	3.6	40	7.7	100	22	9.3	36	4.8	2.3	2.8	1.0
24	5.6	3.9	25	9.3	113	30	8.8	36	14	4.0	2.1	1.5
25	5.2	3.8	26	9.7	89	35	8.4	28	57	3.1	10	1.2
26	4.6	3.6	21	10	60	27	9.2	21	13	48	203	5.0
27	4.7	4.2	21	8.2	61	22	8.5	17	7.9	47	38	993
28	4.1	3.6	28	7.4	42	21	7.2	14	6.8	17	16	182
29	9.2	12	74	7.4	---	21	6.8	12	7.5	8.2	9.9	46
30	11	13	50	7.0	---	19	6.0	10	7.1	5.3	7.5	28
31	6.3	---	32	6.5	---	17	---	8.9	---	52	6.3	---
TOTAL	118.3	245.4	851.4	495.5	3433.6	970	628.2	1548.3	748.8	282.4	696.8	1345.0
MEAN	3.82	8.18	27.5	16.0	123	31.3	20.9	49.9	25.0	9.11	22.5	44.8
MAX	13	54	137	67	1620	74	125	523	232	52	203	993
MIN	1.2	3.1	6.6	6.3	8.0	17	6.0	5.5	4.8	1.5	1.9	1.0
CFSM	.09	.18	.62	.36	2.76	.70	.47	1.12	.56	.20	.51	1.01
IN.	.10	.21	.71	.41	2.87	.81	.53	1.29	.63	.24	.58	1.12

CAL YR 1984 TOTAL 29234.4 MEAN 79.9 MAX 1670 MIN 1.2 CFSM 1.80 IN. 24.44
WTR YR 1985 TOTAL 11363.7 MEAN 31.1 MAX 1620 MIN 1.0 CFSM .70 IN. 9.50

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.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 29...	1315	7.0	272	7.7	.0	18.0	122	1.5	70	<20
MAR 26...	1330	26	228	9.5	9.5	17.4	151	1.5	<20	<20
JUN 04...	1300	16	201	7.8	21.5	9.5	108	1.0	170	2400
JUL 09...	1030	4.3	287	7.8	21.5	6.2	71	2.1	130	790
AUG 21...	1100	3.0	297	8.2	21.5	5.9	67	2.4	350	1600

DATE	HARD-NESS (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 29...	94	22	9.5	20	2.4	57	33	29	<.10
MAR 26...	68	16	6.8	16	1.7	39	28	26	<.10
JUN 04...	63	15	6.1	13	2.5	42	21	18	.10
JUL 09...	89	21	8.8	20	3.2	68	26	27	.10
AUG 21...	85	20	8.5	23	3.2	63	27	33	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 29...	3.1	150	.007	1.4	.130	.56	2.0	.090	2.4
MAR 26...	3.5	120	.013	.26	.050	.48	.74	.050	3.7
JUN 04...	9.1	110	.013	.95	.090	.64	1.6	.130	5.7
JUL 09...	1.3	150	.004	.07	.120	.48	.55	.080	4.6
AUG 21...	2.8	160	<.003	<.05	.090	.49	--	.070	3.4

01401000 STONY BROOK AT PRINCETON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 04...	1300	<.5	40	1	<10	70	1	10	7

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)	PHENOLS TOTAL (UG/L)
JUN 04...	160	3	40	<.1	4	<1	50	4

01401440 MILLSTONE RIVER AT KINGSTON, NJ

LOCATION.--Lat 40°22'24", long 74°37'15", Middlesex County, Hydrologic Unit 02030105, at bridge on Lincoln Highway in Kingston, 0.2 mi downstream from the outflow of Carnegie Lake, and 3.0 mi northwest of Plainsboro.

DRAINAGE AREA.--172 mi², includes 8.0 mi² which drains into Delaware and Raritan Canal.

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 29...	1445	--	260	7.3	3.0	13.4	99	2.1	490	490
MAR 26...	1030	--	212	9.6	8.0	12.8	107	2.7	<20	<20
JUN 06...	1330	--	170	7.3	21.5	7.8	89	2.1	5400	110
JUL 09...	1330	--	200	8.8	27.0	8.3	105	4.2	13	79
AUG 21...	1330	--	191	8.1	24.5	7.5	90	3.0	130	350

DATE	HARD-NESS (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 29...	65	15	6.6	22	3.4	25	27	36	.20
MAR 26...	59	14	5.8	16	2.2	31	26	26	.10
JUN 06...	47	11	4.7	11	2.8	27	22	16	.10
JUL 09...	55	13	5.4	13	3.1	34	22	19	.30
AUG 21...	50	12	4.9	12	3.3	35	18	18	.30

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 29...	8.3	130	.020	2.8	.920	1.6	4.4	.170	3.9
MAR 26...	1.7	110	.020	.88	.070	1.0	1.9	.100	4.2
JUN 06...	5.9	90	.066	.89	.450	1.2	2.1	.190	5.4
JUL 09...	.5	97	.029	.57	.140	.90	1.5	.070	6.1
AUG 21...	3.1	93	.020	.47	.290	.97	1.4	.120	6.3

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 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 29...	1030	5.5	259	7.4	.0	13.5	91	2.5	20	80
MAR 21...	1330	11	194	8.0	7.0	14.2	116	1.8	20	<20
MAY 23...	1230	15	182	7.5	17.0	9.1	94	5.2	--	--
JUL 08...	1330	2.6	289	8.4	22.5	9.0	104	1.4	80	2400
AUG 07...	1330	5.5	261	8.2	23.0	9.5	110	1.5	490	140

DATE	HARD-NESS (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 29...	92	22	8.9	15	2.3	53	34	23	<.10
MAR 21...	65	15	6.7	11	1.4	37	27	18	<.10
MAY 23...	60	14	6.0	10	2.0	34	22	14	<.10
JUL 08...	92	22	9.0	19	2.9	63	29	27	<.10
AUG 07...	80	19	7.8	15	3.3	50	28	22	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 29...	9.3	150	.022	2.2	.290	.82	3.0	.260	2.2
MAR 21...	5.9	110	.017	.86	.090	.40	1.3	.130	2.6
MAY 23...	12	100	.057	1.8	.190	.89	2.7	.170	4.8
JUL 08...	2.9	150	.031	.49	.140	.65	1.1	.320	4.4
AUG 07...	4.7	130	.026	1.9	.100	.70	2.6	.300	--

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 5-8 and Sept. 27-30. Records fair except those for periods of no gage-height record, Jan. 5-8 and Sept. 27-30, which are poor. Several measurements of water temperature were made during the year. Recording rain-gage and gage-height telemeter at station.

AVERAGE DISCHARGE.--5 years, 8.53 ft/³/s, 21.61 in/yr.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s, July 7, 1984, gage height, 11.76 ft; no flow many days in August and September 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1810, 13.5 ft, from floodmark, present datum, Aug. 28, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	1750	430	6.80	Aug. 26	0600	360	6.36
July 31	2025	469	7.02	Sept. 27	unknown	*679	a*8.09

a From maximum indicator.

Minimum discharge, 0.35 ft³/s, Oct. 6, 7, 8, 9, 14, Apr. 24, 25, 26; minimum gage height, 2.72 ft, Apr. 24, 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	.63	.83	8.4	12	3.5	16	.73	46	.86	19	.88
2	3.2	.59	.71	15	11	3.4	6.3	1.9	6.8	.81	3.6	.81
3	.75	.60	3.8	11	2.6	2.4	4.1	92	3.5	.79	1.5	.79
4	.49	.58	4.1	8.6	1.0	2.4	3.5	18	2.3	.74	.99	.72
5	.40	28	1.2	12	.95	13	2.9	9.4	24	.77	.89	.65
6	.37	4.3	48	8.9	.91	5.2	2.9	6.3	12	1.2	.79	.57
7	.35	1.2	12	9.4	.88	3.0	2.3	4.5	4.8	3.0	.81	.55
8	.36	.92	4.7	5.8	.77	5.8	2.0	3.2	8.4	.81	13	.56
9	.38	.83	2.6	3.0	.73	5.2	1.7	2.2	5.9	.77	1.9	2.6
10	.47	.80	2.3	2.3	.78	3.4	1.4	2.0	3.3	.65	1.0	2.6
11	.41	3.3	2.1	2.1	.80	2.8	1.5	1.6	1.9	.57	.95	.95
12	.38	2.9	1.6	2.1	136	13	1.4	1.2	1.6	.48	.83	.67
13	.41	1.0	1.4	1.7	50	7.4	1.2	1.1	1.1	.76	.72	.60
14	.38	.88	1.1	1.5	25	4.3	1.2	1.1	1.0	.92	2.4	.54
15	.41	.82	2.3	1.6	10	3.0	1.2	.97	.95	1.9	.80	.52
16	.42	.80	1.8	1.2	8.2	2.2	1.3	.99	9.8	1.4	.67	.49
17	.40	.77	1.7	.99	5.5	2.0	1.1	1.8	5.9	.66	.61	.48
18	.44	.74	1.5	1.0	3.1	1.9	.99	25	1.9	.50	.59	.45
19	.39	.89	2.0	1.0	3.3	1.5	1.0	4.7	1.2	.44	.60	.44
20	.40	.79	2.9	1.0	3.3	1.6	1.8	2.1	.96	.40	.73	.44
21	.47	.68	4.1	1.3	3.2	1.6	1.3	10	1.0	.38	.94	.41
22	.47	.63	23	2.0	4.6	1.6	1.1	28	.83	3.9	.79	.41
23	9.2	.63	8.3	1.3	14	2.9	1.1	6.2	.76	.56	.63	.40
24	1.4	.63	5.3	.99	14	2.5	1.0	4.9	28	.40	.54	2.0
25	.86	.60	6.0	.95	11	3.1	1.0	3.0	9.8	.36	7.6	.72
26	.64	.59	3.1	.86	8.4	1.7	.98	2.0	2.2	16	78	1.1
27	.65	.56	3.1	.73	8.0	1.5	.90	1.6	1.2	7.1	6.7	204
28	.58	.51	8.4	.67	4.9	1.6	.81	4.0	1.3	.95	2.2	14
29	13	5.3	27	.66	---	1.6	.80	4.9	1.6	.67	1.2	8.4
30	1.1	1.1	11	.61	---	1.3	.76	1.5	.98	.60	1.0	3.1
31	.76	---	7.0	.57	---	1.2	---	1.2	---	82	.97	---
TOTAL	42.44	62.57	204.94	109.23	344.92	107.6	65.54	248.09	190.98	131.35	152.95	250.85
MEAN	1.37	2.09	6.61	3.52	12.3	3.47	2.18	8.00	6.37	4.24	4.93	8.36
MAX	13	28	48	15	136	13	16	92	46	82	78	204
MIN	.35	.51	.71	.57	.73	1.2	.76	.73	.76	.36	.54	.40
CFSM	.26	.39	1.23	.66	2.29	.65	.41	1.49	1.19	.79	.92	1.56
IN.	.29	.43	1.42	.76	2.39	.75	.45	1.72	1.33	.91	1.06	1.74

CAL YR 1984 TOTAL 3913.78 MEAN 10.7 MAX 528 MIN .15 CFSM 2.00 IN. 27.16
WTR YR 1985 TOTAL 1911.46 MEAN 5.24 MAX 204 MIN .35 CFSM .98 IN. 13.27

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 mi².

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 National Geodetic Vertical Datum of 1929. 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 ft³/s, which are poor. 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.

AVERAGE DISCHARGE.--64 years, 374 ft³/s, 19.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,200 ft³/s, Aug. 28, 1971, gage height, 18.68 ft, from high-water mark; minimum, about 5 ft³/s, Sept. 16, 1923.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	0430	*3140	*8.31	No other peak greater than base discharge.			

Minimum discharge, 31 ft³/s, April 4, 21, 24, 25, 26, Sept. 7, 8; minimum gage height, 1.37 ft, April 4, 21, 24, 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	75	74	246	69	208	337	45	577	49	626	64
2	164	76	64	290	175	184	329	52	386	45	199	61
3	120	69	70	352	189	166	255	1240	247	39	126	54
4	87	73	103	272	159	157	203	1340	161	33	99	46
5	78	290	86	274	141	249	160	563	223	42	70	41
6	79	223	648	241	130	222	142	348	256	49	49	36
7	71	174	581	219	113	189	115	251	156	45	41	33
8	76	133	376	226	99	185	106	191	118	43	191	33
9	87	88	252	184	89	214	94	147	110	46	203	81
10	90	68	180	152	82	182	84	119	91	45	140	185
11	78	105	150	140	80	151	79	97	86	41	106	214
12	75	168	124	126	782	212	79	81	80	37	68	167
13	78	136	105	118	2350	266	77	71	62	39	52	122
14	85	119	89	112	1670	231	72	63	51	38	92	83
15	84	102	95	113	725	187	71	53	43	42	56	62
16	73	85	96	97	404	145	71	52	110	119	46	53
17	71	70	93	89	285	128	64	56	176	87	35	47
18	74	65	91	91	249	118	58	220	158	56	33	43
19	74	76	94	101	251	115	60	240	139	41	34	41
20	70	72	125	88	281	121	65	121	96	37	36	41
21	67	70	122	76	260	109	65	83	72	33	45	40
22	69	65	323	70	263	97	63	198	55	73	53	39
23	116	63	276	68	374	96	60	177	46	45	58	38
24	116	61	219	67	405	118	56	132	99	34	60	52
25	105	58	210	68	374	154	55	102	142	32	101	56
26	85	58	173	68	318	145	63	82	111	249	709	53
27	78	64	160	66	291	127	61	65	84	252	512	1490
28	82	66	191	62	238	115	56	67	69	155	263	2830
29	132	111	392	59	---	107	52	106	63	101	137	1380
30	111	94	348	56	---	103	48	77	55	73	90	586
31	86	---	270	55	---	100	---	74	---	157	70	---
TOTAL	2759	2977	6180	4246	10846	4901	3100	6513	4122	2177	4400	8071
MEAN	89.0	99.2	199	137	387	158	103	210	137	70.2	142	269
MAX	164	290	648	352	2350	266	337	1340	577	252	709	2830
MIN	67	58	64	55	69	96	48	45	43	32	33	33
CFSM	.34	.38	.77	.53	1.50	.61	.40	.81	.53	.27	.55	1.04
IN.	.40	.43	.89	.61	1.56	.71	.45	.94	.59	.31	.63	1.16

CAL YR 1984 TOTAL 165502 MEAN 452 MAX 6810 MIN 57 CFSM 1.75 IN. 23.86
WTR YR 1985 TOTAL 60292 MEAN 165 MAX 2830 MIN 32 CFSM .64 IN. 8.69

01402540 MILLSTONE RIVER AT WESTON, NJ

LOCATION.--Lat 40°31'47", long 74°35'19", Somerset County, Hydrologic Unit 02030105, at bridge on Wilhouski Street in Weston, 50 ft upstream from Royce Brook, 0.8 mi southwest of Alma White College, and 1.9 mi north of Millstone.

DRAINAGE AREA.--271 mi^2, includes approximately 13 mi^3 which drains into Delaware and Raritan canal.

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN										
28...	1100	65	--	7.4	.5	14.8	102	1.2	<20	50
MAR										
21...	1030	105	248	7.9	6.0	13.6	108	2.6	20	<20
JUN										
06...	1030	252	198	7.3	18.0	6.6	70	3.7	9200	9200
JUL										
08...	1030	36	322	7.7	23.5	8.9	105	3.4	200	200
AUG										
07...	1030	43	250	7.5	23.0	8.3	96	2.8	<200	500

DATE	HARD-NESS (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									
28...	86	21	8.1	23	4.0	33	42	33	.20
MAR									
21...	70	17	6.7	16	2.5	31	33	27	.10
JUN									
06...	60	15	5.5	13	2.5	30	27	20	.10
JUL									
08...	95	25	7.8	22	4.5	49	41	33	.30
AUG									
07...	68	17	6.2	16	4.0	38	28	24	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
28...	10	160	.028	2.1	3.75	4.0	6.1	1.35	3.4
MAR									
21...	6.4	130	.066	1.8	.670	1.4	3.2	.370	3.2
JUN									
06...	9.6	110	.132	2.1	.390	1.3	3.4	.480	5.3
JUL									
08...	6.2	170	.066	2.7	.140	.93	3.6	.430	5.4
AUG									
07...	6.4	120	.016	1.6	.100	.93	2.5	.320	4.5

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to September 1974, January 1980 to current year.

REVISED RECORDS.--WRD NJ 69: 1967, 1968.

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Datum of gage is 66.98 ft above National Geodetic Vertical Datum of 1929. Prior to September 1974 at same site at datum 0.79 ft higher.

REMARKS.--Estimated daily discharges: Jan. 3 to Feb. 22, Mar. 3-13, and Mar. 25 to Apr. 7. Records fair except for periods of no gage-height record, Mar. 3-13 and Mar. 25 to Apr. 7, and period of ice effect, Jan. 3 to Feb. 22, which are poor. Some regulation from storm-water detention basin 542 ft upstream of gage since 1980. Several measurements of water temperature were made during the year. Recording rain gage and gage-height telemeters at station.

AVERAGE DISCHARGE.--13 years (water years 1967-74, 1981-85), 2.41 ft³/s, 27.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft³/s, Aug. 28, 1971, gage height, 7.80 ft, present datum, from high-water mark, from rating curve extended above 203 ft³/s on basis of slope-area measurement of peak flow; no flow part of or all of some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 125 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 5	0625	125	3.67	Aug. 26	0300	269	4.61
Feb. 12	1435	137	3.76	Sept. 27	1125	*309	*4.82
July 31	1730	178	4.07				

No flow Jan. 30, 31, Feb. 1, May 21.

REVISIONS.--The peak discharges and annual maximum (*) reported for water years 1980-1984 have been revised as shown in the following table. They supersede figures published in the reports for 1980-84.

Water year	Date	Time	Discharge (ft³/s)	Gage height (ft)	Water year	Date	Time	Discharge (ft³/s)	Gage height (ft)
1980	Mar. 21, 1980	1420	*215	*4.32	1984	Dec. 04, 1983	1055	121	3.63
	Apr. 09, 1980	1210	116	3.59		Dec. 13, 1983	1745	137	3.76
	Apr. 28, 1980	1315	132	3.72		Dec. 22, 1983	1150	160	3.94
1981	May 11, 1981	2140	*173	*4.04		Dec. 28, 1983	1750	115	3.58
1982	Oct. 27, 1981	2205	169	4.00		Feb. 15, 1984	0535	111	3.55
	Jan. 04, 1982	0935	*259	*4.56		Apr. 05, 1984	0510	154	3.89
	Feb. 03, 1982	0210	122	3.64		May 29, 1984	1700	162	3.95
	Apr. 03, 1982	1905	119	3.62		May 30, 1984	0355	213	4.30
	July 20, 1982	1010	116	3.59		July 07, 1984	0735	*915	*6.32
	Sept. 23, 1982	0415	121	3.63		July 21, 1984	0935	345	4.98
1983	Mar. 21, 1983	1110	155	3.90		July 27, 1984	0850	187	4.13
	Apr. 03, 1983	0810	119	3.62					
	Apr. 10, 1983	1135	164	3.97					
	Apr. 16, 1983	0800	207	4.26					
	June 06, 1983	1640	*478	*5.45					
	July 30, 1983	2115	114	3.57					

01402600 ROYCE BROOK TRIBUTARY NEAR BELLE MEAD, NJ--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	.45	.29	2.3	.21	.56	2.6	.15	6.4	.14	1.9	.15
2	2.0	.49	.21	5.6	5.4	.50	.88	1.6	.78	.10	.59	.12
3	.45	.32	2.7	2.3	1.0	.50	.54	29	.47	.32	.33	.10
4	.26	.26	.74	.73	.07	.62	.45	3.4	.37	.09	.23	.06
5	.18	20	.47	1.0	.05	2.6	.37	1.7	9.7	.10	.20	.04
6	.14	2.1	23	.77	.06	7.6	.58	1.3	1.8	.33	.20	.04
7	.12	1.0	4.1	.86	.06	.42	.46	1.0	.91	.30	.20	.02
8	.13	.78	1.9	.40	.05	.78	.34	.76	2.4	.10	7.3	.04
9	.34	.70	1.2	.32	.05	.58	.28	.73	.88	.10	.52	12
10	.19	.60	1.0	.19	.01	.41	.23	.61	.60	.08	.31	2.8
11	.14	1.8	.91	.70	.30	.37	.30	.56	.42	.08	.23	.67
12	.13	.89	.71	.15	39	6.0	.26	.42	.35	.05	.19	.29
13	.10	.55	.64	.13	16	1.4	.21	.37	.28	.42	.16	.16
14	.07	.37	.54	.12	5.0	.55	.19	.33	.22	.33	2.3	.11
15	.04	.34	1.0	.12	3.3	.43	.21	.25	.20	.26	.22	.07
16	.04	.36	.62	.07	2.3	.37	.24	.34	4.6	.41	.20	.05
17	.03	.25	.59	.08	1.7	.51	.18	1.5	1.1	.12	.16	.03
18	.03	.29	.55	.09	1.6	.42	.16	6.2	.74	.08	.13	.03
19	.04	.48	.84	.09	2.1	.37	.22	1.1	.37	.08	.13	.03
20	.07	.24	.78	.07	1.9	.44	1.1	.63	.37	.05	.15	.02
21	.09	.20	3.4	.05	1.3	.29	.28	7.3	.28	.03	.58	.01
22	9.0	.19	8.0	.06	2.1	.29	.50	4.0	.19	.99	.15	.01
23	9.2	.18	2.6	.06	3.8	.86	.43	1.4	.19	.13	.09	.04
24	1.4	.17	1.5	.06	6.0	.59	.23	.93	8.3	.04	.05	1.2
25	.66	.13	1.7	.07	5.4	.48	.28	.63	.85	.05	6.1	.38
26	.83	.12	1.0	.06	2.5	.36	.24	.45	.40	11	36	8.6
27	.46	.12	1.0	.05	1.6	.39	.18	.40	.28	2.3	2.9	95
28	1.2	.15	2.9	.04	.72	.39	.19	1.7	.36	.49	.67	10
29	12	2.7	9.4	.04	---	.47	.13	.99	.39	.31	.39	5.2
30	1.0	.39	5.3	.04	---	.36	.15	.45	.41	.20	.31	1.7
31	.68	---	2.1	.04	---	.43	---	.36	---	20	.22	---
TOTAL	43.42	36.62	81.69	16.66	103.58	30.34	12.41	70.56	44.61	39.08	63.11	138.97
MEAN	1.40	1.22	2.64	.54	3.70	.98	.41	2.28	1.49	1.26	2.04	4.63
MAX	12	20	23	5.6	39	7.6	2.6	29	9.7	20	36	95
MIN	.03	.12	.21	.04	.01	.29	.13	.15	.19	.03	.05	.01
CFSM	1.17	1.02	2.20	.45	3.08	.82	.34	1.90	1.24	1.05	1.70	3.86
IN.	1.35	1.14	2.53	.52	3.21	.94	.38	2.19	1.38	1.21	1.96	4.31

CAL YR 1984 TOTAL 1109.32 MEAN 3.03 MAX 92 MIN .01 CFSM 2.53 IN. 34.39
WTR YR 1985 TOTAL 681.05 MEAN 1.87 MAX 95 MIN .01 CFSM 1.56 IN. 21.11

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 mi² (includes 11 mi² which drains into the Delaware and Raritan Canal).

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929. 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 1,120 ft upstream at datum 18.06 ft higher.

REMARKS.--Estimated daily discharges: Feb. 8-10 and May 15-20. Records good. 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. Gage-height telemeter at station.

AVERAGE DISCHARGE.--46 years, (water years 1904-08, 1945-85), 1,279 ft³/s, adjusted for diversion by Elizabethtown Water Co. since 1944, and change in contents in Spruce Run Reservoir since 1964 and Round Valley Reservoir since 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,100 ft³/s, Aug. 28, 1971, elevation, 37.47 ft, from floodmark; minimum daily, 37 ft³/s, Sept. 6, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Elevation (ft)	Date	Time	Discharge (ft³/s)	Elevation (ft)
Sept. 28	0215	*14,100	*26.62	No other peak greater than base discharge.			

Minimum discharge, 42 ft³/s, Sept. 6, elevation, 16.23 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247	168	268	805	265	600	668	88	1080	102	1480	200
2	373	186	225	1080	463	545	676	167	762	80	328	111
3	283	136	277	1370	429	485	481	4340	451	141	155	80
4	182	140	498	937	321	433	412	3570	311	142	101	93
5	182	1530	334	952	284	689	350	1470	759	102	89	82
6	162	794	2180	784	288	698	325	960	1050	113	82	77
7	161	431	1840	706	272	502	297	717	468	215	86	83
8	198	314	958	730	212	485	262	526	345	131	404	101
9	180	240	687	460	171	542	237	393	343	89	357	396
10	159	207	528	466	215	463	211	325	245	89	168	556
11	156	256	469	507	233	394	198	283	181	73	150	517
12	150	312	420	446	2110	823	205	238	154	74	120	253
13	170	241	352	471	6830	1020	193	204	125	163	74	110
14	199	211	303	416	3180	702	180	180	99	162	296	77
15	215	200	320	399	1570	565	194	156	78	148	111	86
16	158	214	327	246	992	457	189	137	818	227	77	93
17	142	188	298	310	768	415	153	150	1450	168	88	113
18	150	187	289	369	690	378	136	1380	575	115	104	89
19	171	213	283	402	666	333	132	960	454	78	92	76
20	165	199	385	296	710	327	177	494	288	88	83	87
21	151	177	386	177	633	307	165	434	199	75	116	89
22	204	167	1540	247	633	281	155	1680	128	218	104	94
23	1340	186	1100	356	1050	301	136	736	108	152	88	94
24	459	188	735	315	1440	348	121	532	237	74	93	138
25	258	201	678	293	1250	353	126	394	652	83	278	117
26	219	187	527	280	986	313	126	307	238	598	1730	99
27	201	219	479	247	881	276	90	238	160	1900	788	6860
28	203	202	583	237	715	264	101	206	135	617	332	8660
29	1440	514	1220	235	---	262	113	290	119	208	188	2560
30	393	447	1310	195	---	261	103	194	156	124	155	1200
31	223	---	861	175	---	251	---	164	---	327	208	---
TOTAL	8894	8855	20660	14909	28257	14073	6912	21913	12168	6876	8525	23191
MEAN	287	295	666	481	1009	454	230	707	406	222	275	773
MAX	1440	1530	2180	1370	6830	1020	676	4340	1450	1900	1730	8660
MIN	142	136	225	175	171	251	90	88	78	73	74	76

CAL YR 1984 TOTAL 561448 MEAN 1534 MAX 20600 MIN 134
WTR YR 1985 TOTAL 175233 MEAN 480 MAX 8660 MIN 73

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 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 240.48 ft above National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--No estimated daily discharges. Records fair. Several measurements of water temperature were made during the year. Recording rain gage and gage-height telemeters at station.

AVERAGE DISCHARGE.--6 years, 3.01 ft³/s, 20.54 in/yr.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 816 ft³/s, May 11, 1981, gage height, 5.60 ft; no flow part or all of each day Sept. 19-30, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 225 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 26	2320	464	5.01	Sept. 10	1700	490	5.07
Aug. 26	0250	228	4.33	Sept. 27	1125	*727	*5.55

Minimum discharge, 0.04 ft³/s, Aug. 2, 17, 18, 19, 20, 21, 22, 23, 24, 25, gage height, 2.23 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	.10	.25	5.1	.75	1.2	5.3	.14	1.9	.09	.33	.12
2	.75	.12	.15	17	1.3	1.2	1.5	1.4	.12	.09	.11	.12
3	.19	.10	3.3	6.5	.86	1.1	1.1	56	.11	.12	.08	.13
4	.14	.10	1.1	4.9	.66	1.2	.91	4.2	.10	.08	.08	.13
5	.14	18	.59	6.4	.60	4.3	.80	2.0	13	.07	.09	.13
6	.13	.62	26	4.3	.77	1.3	1.1	1.3	1.2	.07	.12	.12
7	.18	.15	2.4	4.7	.60	1.2	.80	.93	.34	.07	.13	.12
8	.14	.12	1.2	4.2	.51	1.4	.79	.58	.60	.06	1.7	.15
9	.14	.11	1.2	2.3	.54	1.2	.70	.32	.34	.06	.15	1.0
10	.14	.11	1.3	1.2	.45	1.1	.60	.31	.20	.06	.43	25
11	.14	.43	1.5	.92	.41	1.1	.66	.21	.13	.07	.30	.79
12	.14	.25	1.4	.93	50	13	.56	.14	.13	.07	.10	.23
13	.14	.14	1.4	.91	15	3.0	.45	.13	.12	.14	.09	.16
14	.14	.19	1.3	.85	3.8	2.1	.50	.11	.11	.09	1.1	.14
15	.13	.17	1.5	.79	1.8	1.6	.61	.10	.12	.09	.11	.12
16	.13	.20	1.4	.42	1.3	1.3	.60	.11	23	.29	.08	.12
17	.13	.16	1.4	.60	1.2	1.4	.46	.21	2.9	.11	.07	.12
18	.13	.15	1.4	.70	1.3	1.1	.45	11	1.2	.11	.07	.11
19	.13	.24	2.2	.70	2.3	.85	.45	.60	.52	.12	.06	.12
20	.13	.16	2.0	.55	1.8	.92	.71	.21	.24	.13	.04	.13
21	.13	.14	6.2	.66	1.8	.80	.45	2.1	.16	.14	.05	.15
22	4.6	.13	16	.64	6.6	.80	.47	2.3	.12	.84	.04	.19
23	2.8	.13	4.0	.54	8.7	1.2	.44	.65	.12	.09	.04	.21
24	.15	.14	2.9	.68	5.1	.98	.34	.46	1.7	.08	.04	.41
25	.10	.13	3.1	.66	3.0	.85	.44	.22	.19	.08	2.2	.37
26	.27	.13	1.8	.42	1.9	.72	.31	.13	.10	29	25	2.0
27	.12	.13	2.1	.34	1.6	.75	.23	.12	.09	14	.33	97
28	1.0	.14	4.7	.29	1.3	.81	.21	.98	.10	.22	.15	1.1
29	14	3.0	19	.25	---	.92	.17	.48	.10	.12	.12	.42
30	.19	.50	6.1	.19	---	.74	.14	.12	.09	.08	.21	.29
31	.12	---	4.4	.22	---	.80	---	.11	---	.82	.13	---
TOTAL	27.38	26.19	123.29	68.86	115.95	50.94	22.25	87.67	49.15	47.46	33.55	131.20
MEAN	.88	.87	3.98	2.22	4.14	1.64	.74	2.83	1.64	1.53	1.08	4.37
MAX	14	18	26	17	50	13	5.3	56	23	29	25	97
MIN	.10	.10	.15	.19	.41	.72	.14	.10	.09	.06	.04	.11
CFSM	.44	.44	2.00	1.12	2.08	.82	.37	1.42	.82	.77	.54	2.20
IN.	.51	.49	2.30	1.29	2.17	.95	.42	1.64	.92	.89	.63	2.45

CAL YR 1984 TOTAL 1538.47 MEAN 4.20 MAX 122 MIN .10 CFSM 2.11 IN. 28.76
WTR YR 1985 TOTAL 783.89 MEAN 2.15 MAX 97 MIN .04 CFSM 1.08 IN. 14.65

01403160 WEST BRANCH MIDDLE BROOK NEAR SOMERVILLE, NJ

LOCATION.--Lat 40°36'28", long 74°35'11", Somerset County, Hydrologic Unit 02030105, on left bank 150 ft upstream from bridge on Tullo Road, 2.4 mi northeast of Somerville, and 1.4 mi upstream from confluence with East Branch Middle Brook.

DRAINAGE AREA.--3.83 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to February 1986 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 226.12 ft above National Geodetic Vertical Datum of 1929 (levels by Bridgewater Township).

REMARKS.--Estimated daily discharges: Jan. 21 to Feb. 21, 1985, Apr. 23 to May 21, 1985 and Feb. 24-28, 1986. Records good except those for periods of no gage-height record, Jan. 21 to Feb. 21, 1985, Apr. 23 to May 21, 1985, Feb. 24-28, 1986, and those below 1.0 ft³/s, which are fair. Several measurements of water temperature were made during the year.

COOPERATION.--Gage-height record collected in cooperation with Bridgewater Township.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 823 ft³/s, Sept. 27, 1985, gage height, 4.30 ft, from rating curve extended above 300 ft³/s; no flow many days in 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 26	2250	401	3.23	Sept. 27	1130	*823	*4.30
Sept. 10	1655	384	3.18				

No flow many days.

October 1985 to February 1986: Maximum discharge, 401 ft³/s, Nov. 16, gage height, 3.23; no flow Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.98	.48	1.1	4.9	1.0	3.1	6.8	2.0	3.3	.61	1.0	.43
2	1.2	.52	.83	14	2.3	2.9	2.8	60	.79	.57	.54	.41
3	.55	.45	4.7	6.2	1.2	2.3	2.3	40	.60	.77	.46	.38
4	.49	.42	2.3	4.8	.86	2.6	2.1	20	.49	.53	.43	.35
5	.49	21	1.4	5.9	1.3	6.9	2.0	11	14	.47	.39	.33
6	.48	1.8	30	3.9	.80	2.9	2.3	7.0	3.2	.54	.38	.31
7	.50	.97	4.9	4.2	.50	2.4	1.9	4.0	2.0	.54	.38	.29
8	.51	.77	2.7	3.7	.35	3.2	1.7	2.0	4.0	.47	2.7	.39
9	.60	.97	2.2	2.2	.42	2.7	1.6	1.5	3.3	.44	.51	1.8
10	.58	1.6	2.5	1.9	.35	2.3	1.5	1.4	2.4	.41	.59	23
11	.57	2.2	2.3	1.8	1.0	2.1	1.5	1.2	1.9	.34	.62	2.1
12	.62	1.5	2.0	1.7	55	14	1.5	1.1	1.6	.32	.34	.81
13	.58	1.1	1.7	1.6	25	5.9	1.3	.95	.68	.57	.30	.62
14	.57	1.0	1.5	1.5	7.0	3.9	1.3	.84	.62	.37	1.9	.55
15	.56	.98	2.1	1.5	4.5	3.2	1.5	.75	.57	.38	.35	.47
16	.57	1.2	1.7	1.0	3.2	2.7	1.5	1.0	24	.62	.30	.44
17	.57	1.1	1.8	1.1	2.8	2.7	1.3	5.0	6.4	.33	.29	.34
18	.57	1.1	1.6	1.2	3.2	2.4	1.2	11	2.8	.30	.29	.32
19	.61	1.5	2.3	1.2	4.0	2.0	1.3	3.0	1.9	.29	.34	.30
20	.68	1.1	2.3	.93	4.6	2.1	1.7	1.4	1.3	.29	.29	.30
21	.66	1.0	5.5	.60	3.1	1.9	1.5	7.5	1.1	.28	.33	.29
22	6.0	.95	14	.47	6.6	1.7	1.7	4.0	.89	.97	.29	.30
23	3.8	.96	3.9	.80	13	2.2	1.7	1.9	.85	.29	.28	.30
24	.63	.99	3.1	.72	8.5	2.1	1.3	1.6	3.2	.28	.26	.56
25	.40	.91	3.2	.92	5.9	1.9	1.5	1.2	1.3	.27	4.0	.35
26	.67	.89	2.2	.80	4.9	1.5	1.3	.90	.82	31	25	1.9
27	.47	.79	2.5	.70	4.4	1.5	1.2	.74	.73	12	1.1	104
28	1.5	.93	4.5	.50	3.3	1.6	1.0	.85	.86	.92	.68	3.8
29	15	5.1	16	.45	---	1.8	.95	2.5	.82	.65	.53	1.9
30	.83	1.4	5.7	.40	---	1.6	.88	.77	.71	.54	.73	1.3
31	.59	---	4.2	.35	---	1.6	---	.69	---	1.8	.51	---
TOTAL	42.83	55.68	136.73	71.94	169.08	91.7	52.13	197.79	87.13	58.16	46.11	148.64
MEAN	1.38	1.86	4.41	2.32	6.04	2.96	1.74	6.38	2.90	1.88	1.49	4.95
MAX	15	21	30	14	55	14	6.8	60	24	31	25	104
MIN	.40	.42	.83	.35	.35	1.5	.88	.69	.49	.27	.26	.29
CFSM	.36	.49	1.15	.61	1.58	.77	.45	1.67	.76	.49	.39	1.29
IN.	.42	.54	1.33	.70	1.64	.89	.51	1.92	.85	.56	.45	1.44

CAL YR 1984 TOTAL 2816.07 MEAN 7.69 MAX 206 MIN .23 CFSM 2.01 IN. 27.35
WTR YR 1985 TOTAL 1157.92 MEAN 3.17 MAX 104 MIN .26 CFSM .83 IN. 11.25

01403160 WEST BRANCH MIDDLE BROOK NEAR SOMERVILLE, NJ--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.57	12	1.2	3.4							
2	1.1	.66	14	1.2	8.1							
3	7.7	.85	6.8	7.0	5.5							
4	3.2	.79	5.4	3.0	5.1							
5	7.9	22	5.0	9.1	15							
6	3.0	2.7	5.4	3.4	11							
7	1.9	1.8	4.9	2.2	6.2							
8	1.4	1.3	5.4	1.6	5.3							
9	1.2	1.2	5.3	1.4	4.8							
10	1.2	1.2	5.1	1.6	4.6							
11	1.1	1.1	5.1	1.4	4.5							
12	.90	1.3	6.3	1.4	3.8							
13	1.0	1.5	6.0	1.4	3.6							
14	.91	1.8	6.4	1.1	3.1							
15	.90	3.1	3.9	.58	3.0							
16	.79	66	3.6	.61	2.7							
17	.58	64	3.5	.69	3.3							
18	.57	8.0	2.8	.97	34							
19	.57	5.7	2.3	4.6	27							
20	.57	4.8	2.0	12	38							
21	.57	4.0	2.2	4.6	45							
22	.65	26	1.8	3.3	19							
23	.62	9.7	2.0	2.9	11							
24	.67	6.0	2.4	2.2	9.6							
25	.80	4.6	2.3	41	7.5							
26	.68	19	1.6	109	6.5							
27	.54	19	1.4	35	5.8							
28	.47	53	1.6	9.8	4.5							
29	.47	20	1.4	5.8	---							
30	.47	13	1.1	5.1	---							
31	.50	---	1.1	4.2	---							
TOTAL	44.13	364.67	130.1	279.35	300.9							
MEAN	1.42	12.2	4.20	9.01	10.7							
MAX	7.9	66	14	109	45							
MIN	.47	.57	1.1	.58	2.7							
CFSM	.37	3.19	1.10	2.35	2.79							
IN.	.43	3.54	1.26	2.71	2.92							

CAL YR 1985 TOTAL 1461.58 MEAN 4.00 MAX 104 MIN .26 CFSM 1.04 IN. 14.20

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 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to 1969, 1971 to 1973, 1978 and November 1981 to present. Published as "at Bound Brook" (sta. 01403000) 1964-66, and as "below Calco Dam at Bound Brook" (sta. 01403060) 1967-69.

REMARKS.--Instantaneous discharges are determined at Raritan River below Calco Dam at Bound Brook (sta. 01403060).

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 19...	1200	220	325	7.7	6.5	2.2	12.6	102	3.6	K1000	780
FEB 20...	1100	717	255	7.4	3.0	5.0	13.4	99	1.8	K36	86
JUN 21...	1030	208	272	7.6	22.0	2.7	9.0	103	1.4	240	K68
AUG 30...	1100	141	302	7.8	24.5	3.5	9.3	112	2.0	K6100	1700

DATE	HARD-NESS (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 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)	SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV 19...	110	28	8.8	20	3.0	62	44	31	.20	9.1	180
FEB 20...	76	19	6.9	20	2.5	38	30	35	.10	11	150
JUN 21...	84	22	7.1	21	2.6	48	36	27	<.10	9.9	160
AUG 30...	100	28	8.0	25	4.0	51	45	29	.20	8.2	180

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 19...	17	10	75	1.7	1.50	2.6	.310	.180	.270	--
FEB 20...	10	19	91	1.9	.860	1.9	.200	.060	--	3.2
JUN 21...	11	6.2	78	2.1	.150	.70	.250	.200	.200	--
AUG 30...	10	3.8	79	9.5	<.010	.90	.270	.020	<.010	--

01403300 RARITAN RIVER AT QUEENS BRIDGE AT BOUND BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 19...	1200	30	1	40	<.5	<1	<1	<3	4	86	1
FEB 20...	1100	20	<1	41	<.5	<1	<1	<3	3	62	2
JUN 21...	1030	40	2	38	<.5	<1	5	<3	4	110	2
AUG 30...	1100	30	1	43	<.5	1	<1	<3	6	120	1

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	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)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 19...	<4	65	.1	<10	1	<1	<1	220	<6	10
FEB 20...	<4	81	<.1	<10	4	<1	<1	140	<6	13
JUN 21...	<4	58	.3	<10	4	<1	<1	160	<6	8
AUG 30...	16	51	.3	<10	3	<1	<1	240	<6	13

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 mi².

WATER-DISCHARGE RECORDS

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).

GAGE.--Water-stage recorder. Datum of gage is 184.44 ft above National Geodetic Vertical Datum of 1929. 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.--Estimated daily discharges: Jan. 11 to Feb. 11 and Apr. 7-9. Records fair except those for period of ice effect, Jan. 11 to Feb. 11, and for period of no gage-height record, Apr. 7-9, which are poor. Several measurements of water temperature were made during the year. Recording rain gage and gage-height telemeters at station..

AVERAGE DISCHARGE.--6 years, 9.89 ft³/s, 21.56 in/yr.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft³/s, Aug. 2, 1973, gage height, 16.1 ft, from rating curve extended above 600 ft³/s on basis of slope-area measurement of peak flow, site and datum then in use; no flow part or all of some days in September 1981.

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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 29	0050	380	3.12	July 26	2355	778	4.20
Nov. 5	0700	418	3.24	Aug. 26	0335	811	4.28
May 3	0755	270	2.76	Sept. 27	1220	*835	*4.34

Minimum discharge, 1.2 ft³/s Sept. 15, 16, 18, 19, 21-23; gage height, 093 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	2.3	3.6	8.6	5.1	4.9	12	2.3	6.9	2.6	3.5	1.5
2	3.1	2.3	2.9	15	12	4.7	4.8	6.7	2.7	2.5	2.0	1.5
3	1.7	2.2	13	9.1	3.3	4.0	4.0	107	2.5	3.1	1.9	1.5
4	1.6	2.0	6.6	7.3	3.1	5.2	3.9	19	2.6	2.5	1.9	1.4
5	1.5	63	4.3	8.6	3.0	11	3.6	11	33	2.6	1.9	1.4
6	1.5	12	57	5.7	3.0	4.9	3.7	8.2	5.7	3.1	1.8	1.5
7	1.5	4.1	15	5.9	2.7	4.3	3.5	6.9	3.5	3.1	1.8	1.4
8	1.6	3.0	7.6	5.4	2.6	5.4	3.4	5.7	4.7	2.2	5.4	2.0
9	1.6	2.7	5.8	4.2	2.5	4.5	3.2	5.0	3.4	2.3	1.9	1.6
10	1.6	2.7	5.5	3.7	2.3	4.2	3.0	4.7	2.9	2.3	1.8	6.0
11	1.6	17	4.9	3.5	2.1	3.9	3.1	4.4	2.5	2.2	3.2	2.4
12	1.5	7.6	4.4	4.0	52	22	2.9	4.3	2.5	2.1	2.3	1.4
13	1.5	4.1	3.9	4.0	23	8.4	2.7	4.6	2.3	4.1	1.6	1.3
14	1.7	3.1	3.4	3.1	9.9	6.1	2.6	3.3	2.3	2.3	1.5	1.3
15	1.8	3.1	4.4	3.6	6.9	5.1	3.0	3.1	2.3	2.3	1.5	1.3
16	1.7	3.0	3.5	3.0	5.3	4.6	3.2	3.3	42	3.8	1.5	1.3
17	1.7	2.8	3.5	2.7	4.7	4.6	2.7	3.4	8.1	2.0	1.5	1.3
18	1.9	2.7	3.2	2.6	4.8	4.3	2.5	19	7.9	1.9	1.4	1.3
19	1.8	2.9	4.8	2.5	6.0	3.9	4.3	4.3	4.3	1.9	1.4	1.3
20	1.9	2.5	4.1	2.4	5.8	3.9	6.7	3.3	3.4	1.9	1.4	1.3
21	1.8	2.4	9.5	2.1	5.4	3.6	3.3	24	3.1	1.9	1.5	1.3
22	18	2.4	23	2.2	13	3.6	2.9	21	2.7	5.5	1.4	1.3
23	15	2.3	7.3	2.3	23	4.1	2.8	6.3	2.6	1.9	1.3	1.3
24	2.7	2.4	5.3	2.4	17	3.7	2.5	5.2	13	1.8	1.3	6.0
25	1.8	2.3	5.7	2.5	11	3.7	2.7	4.4	3.9	1.9	11	1.6
26	2.4	2.2	4.3	2.5	8.7	3.3	2.6	3.8	2.7	48	93	6.1
27	2.0	2.2	4.7	2.4	7.1	3.1	2.4	3.4	2.6	56	2.9	180
28	2.8	2.4	7.8	2.4	5.2	3.2	2.5	6.3	3.3	4.2	1.9	17
29	44	19	23	2.3	---	3.6	2.3	4.5	5.6	2.6	1.6	3.2
30	3.4	4.6	9.9	2.3	---	3.3	2.3	3.0	4.8	2.2	2.2	2.3
31	2.4	---	7.5	2.2	---	3.3	---	2.8	---	5.0	1.7	---
TOTAL	133.0	187.3	269.4	130.5	250.5	158.4	105.1	314.2	189.8	181.8	161.0	254.1
MEAN	4.29	6.24	8.69	4.21	8.95	5.11	3.50	10.1	6.33	5.86	5.19	8.47
MAX	44	63	57	15	52	22	12	107	42	56	93	180
MIN	1.5	2.0	2.9	2.1	2.1	3.1	2.3	2.3	2.3	1.8	1.3	1.3
CFSM	.69	1.00	1.39	.68	1.44	.82	.56	1.62	1.02	.94	.83	1.36
IN.	.79	1.12	1.61	.78	1.50	.95	.63	1.88	1.13	1.09	.96	1.52

CAL YR 1984 TOTAL 5281.7 MEAN 14.4 MAX 407 MIN 1.4 CFSM 2.31 IN. 31.54
WTR YR 1985 TOTAL 2335.1 MEAN 6.40 MAX 180 MIN 1.3 CFSM 1.03 IN. 13.94

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 193.87 ft above National Geodetic Vertical Datum of 1929 (levels by Somerset County).

REMARKS.--Estimated daily discharges: Oct. 28 to Nov. 15, July 6-17, and Aug. 9-25. Records fair except those periods of no gage-height record, Oct. 28 to Nov. 15, July 6-17, and Aug. 9-25, 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. Recording rain-gage and gage-height telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

AVERAGE DISCHARGE.--5 years, 2.56 ft³/s, 22.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 484 ft³/s, July 7, 1984, gage height, 2.56 ft; no flow part or all of many days in 1980 and 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 3, 1973, reached a stage of 5.4 ft, present datum, from floodmarks, discharge, 2,840 ft³/s, by computation of flow over dam, embankment, and road.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 26	2300	*374	*2.35	Sept. 27	1140	308	2.21
Aug. 26	unknown	282	2.15				

Minimum discharge, 0.10 ft³/s, July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.39	.48	.83	3.0	.74	1.9	3.4	.42	1.9	.84	1.1	.43
2	1.2	.45	.60	4.2	1.2	1.7	1.7	.78	.91	.66	.59	.38
3	.74	.40	2.5	2.8	.80	1.4	1.2	28	.89	.68	.48	.38
4	.49	4.0	1.8	2.6	.82	1.7	1.1	5.2	.78	.55	.42	.38
5	.47	1.0	1.2	2.6	.89	2.9	1.1	3.2	7.3	.47	.33	.37
6	.52	.61	15	1.9	.82	1.7	1.1	2.4	2.2	.58	.29	.32
7	.55	.40	3.7	2.1	.53	1.7	.82	1.8	1.3	.50	.26	.32
8	.61	.35	2.3	1.8	.53	2.0	.75	1.5	1.3	.48	.76	.42
9	.69	.30	1.7	1.3	.51	1.7	.69	1.5	1.1	.45	.60	.57
10	.74	.70	1.7	1.2	.51	1.5	.70	1.3	1.0	.40	.40	2.6
11	.82	2.7	1.6	1.2	.53	1.4	.66	1.2	.84	.35	.38	1.1
12	.86	1.7	1.4	1.2	13	5.6	.62	.98	.77	.30	.35	.56
13	.44	.90	1.3	1.1	5.4	3.0	.67	1.0	.68	.50	.30	.48
14	.52	.70	1.1	1.1	2.9	2.4	.52	.86	.61	.30	.50	.44
15	.60	.62	1.4	1.0	2.2	2.0	.63	.73	.59	.60	.40	.44
16	.89	.97	1.2	.83	1.8	1.7	.68	.77	10	.40	.35	.43
17	1.2	.81	1.2	.97	1.6	1.7	.54	.82	3.3	.30	.20	.36
18	1.2	.82	1.1	.90	1.6	1.5	.52	5.6	2.9	.21	.25	.32
19	1.4	.97	1.5	.91	2.1	1.4	.70	1.4	1.5	.19	.30	.32
20	1.4	.77	1.6	.87	2.1	1.3	1.2	1.1	1.1	.16	.33	.35
21	1.3	.68	2.7	.57	2.0	1.2	.76	5.1	.86	.16	.30	.32
22	1.1	.61	5.6	.57	4.3	1.1	.67	5.4	.71	.68	.28	.30
23	4.8	.61	2.5	.74	6.4	1.3	.60	2.3	.67	.21	.25	.33
24	.50	.56	2.0	.72	4.3	1.2	.52	1.8	3.5	.13	.20	1.1
25	.33	.24	2.0	.79	3.1	1.1	.59	1.5	1.2	.10	13	.54
26	.31	.21	1.5	.73	2.8	.97	.56	1.2	.76	22	2.2	1.3
27	.27	.21	1.7	.68	2.4	.92	.48	1.0	.66	8.5	1.1	43
28	.22	.24	2.3	.57	1.9	.95	.44	1.5	.71	1.0	.71	2.2
29	3.1	3.6	6.7	.50	---	1.1	.41	1.6	2.2	.70	.58	1.1
30	1.2	1.1	3.1	.44	---	.96	.39	1.0	1.8	.56	.47	.85
31	.50	---	2.8	.45	---	1.0	---	.90	---	1.7	.44	---
TOTAL	29.36	27.71	77.63	40.34	67.78	52.00	24.72	83.86	54.04	44.66	28.12	62.01
MEAN	.95	.92	2.50	1.30	2.42	1.68	.82	2.71	1.80	1.44	.91	2.07
MAX	4.8	4.0	15	4.2	13	5.6	3.4	28	10	22	13	43
MIN	.22	.21	.60	.44	.51	.92	.39	.42	.59	.10	.20	.30
CFSM	.61	.59	1.59	.83	1.54	1.07	.52	1.73	1.15	.92	.58	1.32
IN.	.70	.66	1.84	.96	1.61	1.23	.59	1.99	1.28	1.06	.67	1.47

CAL YR 1984 TOTAL 1307.37 MEAN 3.57 MAX 79 MIN .21 CFSM 2.27 IN. 30.98
WTR YR 1985 TOTAL 592.23 MEAN 1.62 MAX 43 MIN .10 CFSM 1.03 IN. 14.03

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 Watchung Avenue Bridge, and 2.9 mi upstream from confluence with Green Brook.

DRAINAGE AREA.--5.51 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 172.24 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 21-24 and Feb. 24 to Mar. 13. Records good except those for periods of no gage-height record, Jan. 21-24 and Feb. 24 to Mar. 13, which are fair. Occasional regulation from Watchung and Best Lakes directly upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 10.4 ft³/s, 25.64 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,420 ft³/s, July 14, 1975, gage height, 10.40 ft, from rating curve extended above 500 ft³/s on basis of slope-area measurements of peak flow; no flow all or part of Sept. 13, 18-20, 1982.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 2, 1973, reached a stage of 14.5 ft, from floodmark, discharge, 11,400 ft³/s, from slope-area measurements of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 29	0055	300	3.83	Aug. 26	0330	*1,440	*6.77
Nov. 5	0645	389	4.21	Sept. 27	1155	1,420	6.73
July 26	2305	1,370	6.65				

Minimum discharge, 0.83 ft³/s Oct. 17, 18, July 24, 25, 26, Aug. 18, 24, 25, gage height, 0.80 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.1	4.1	9.3	3.6	6.0	11	1.0	6.5	3.0	5.1	1.6
2	3.2	2.1	3.3	13	5.3	5.2	6.0	1.8	3.4	2.5	2.4	1.5
3	1.6	1.8	9.4	10	3.6	3.9	4.9	79	2.8	2.6	1.8	1.4
4	1.1	1.7	7.3	8.5	3.1	5.2	4.6	16	2.5	2.2	1.6	1.2
5	.99	44	4.9	9.4	3.1	9.6	4.3	9.8	26	1.9	1.4	1.1
6	.94	6.0	48	7.4	3.2	4.8	4.5	7.8	8.9	2.3	1.3	1.0
7	.95	3.8	12	7.4	2.8	4.8	3.7	6.7	2.4	2.8	1.3	.98
8	.96	2.9	8.1	7.5	2.9	6.4	3.6	5.5	4.4	1.8	4.0	1.1
9	1.0	2.6	6.7	5.7	2.9	5.2	3.4	4.8	4.0	1.6	2.0	1.4
10	1.1	2.4	6.4	5.0	2.7	4.4	3.2	4.6	3.3	1.5	1.4	7.0
11	1.0	11	6.1	4.9	2.6	4.0	3.2	4.2	2.7	1.2	1.4	4.2
12	1.1	7.5	5.2	4.8	44	20	3.1	3.9	2.6	1.1	1.7	1.7
13	1.1	4.1	4.8	4.5	21	10	2.9	3.8	2.4	1.6	1.2	1.4
14	1.2	3.2	4.3	4.3	10	7.3	2.9	3.2	2.1	1.3	1.4	2.2
15	1.1	2.7	5.3	4.3	8.1	6.5	3.0	2.8	2.0	1.3	1.2	1.4
16	1.0	3.1	4.6	4.2	6.8	5.9	3.2	2.7	33	2.3	1.0	1.2
17	.95	2.5	4.4	4.1	6.1	5.8	2.8	3.3	10	2.1	.90	1.7
18	1.1	2.4	4.1	3.7	6.2	5.2	2.6	29	8.3	1.3	.88	1.1
19	1.3	2.7	4.6	3.7	7.2	4.7	3.0	6.4	5.2	1.0	.89	.97
20	1.2	2.3	5.1	3.6	7.5	4.7	4.4	4.6	3.9	.95	.92	.94
21	1.3	2.1	7.3	3.2	6.9	4.3	3.2	15	3.4	.91	1.0	.93
22	9.7	1.9	19	2.9	12	4.1	2.8	18	2.8	2.2	1.0	.92
23	13	1.9	8.3	3.6	19	4.7	11	7.7	2.6	1.2	.92	.95
24	2.7	2.0	6.9	3.4	12	4.5	4.8	6.5	8.6	.89	.85	2.1
25	1.8	1.8	7.1	3.2	10	4.1	6.5	5.3	4.9	.84	6.1	1.7
26	2.2	1.8	5.7	3.0	9.2	3.6	3.8	4.5	2.9	80	113	19
27	2.0	1.8	6.2	2.8	8.0	3.5	1.1	3.9	2.5	37	4.5	163
28	2.4	1.9	7.8	2.7	6.0	3.7	1.1	5.0	2.7	4.3	2.8	9.2
29	32	19	22	2.6	---	4.2	1.0	6.4	5.3	2.9	2.2	4.8
30	4.1	5.7	10	2.3	---	3.5	.99	3.7	6.4	2.6	1.9	3.7
31	2.6	---	8.6	2.4	---	3.7	---	3.2	---	5.2	1.8	---
TOTAL	98.89	150.8	267.6	157.4	235.8	173.5	116.59	280.1	178.5	174.39	169.86	241.39
MEAN	3.19	5.03	8.63	5.08	8.42	5.60	3.89	9.04	5.95	5.63	5.48	8.05
MAX	32	44	48	13	44	20	11	79	33	80	113	163
MIN	.94	1.7	3.3	2.3	2.6	3.5	.99	1.0	2.0	.84	.85	.92
CFSM	.58	.91	1.57	.92	1.53	1.02	.71	1.64	1.08	1.02	.99	1.46
IN.	.67	1.02	1.81	1.06	1.59	1.17	.79	1.89	1.21	1.18	1.15	1.63

CAL YR 1984 TOTAL 4696.74 MEAN 12.8 MAX 344 MIN .67 CFSM 2.32 IN. 31.71
WTR YR 1985 TOTAL 2244.82 MEAN 6.15 MAX 163 MIN .84 CFSM 1.12 IN. 15.16

01405000 LAWRENCE BROOK AT FARRINGTON DAM, NJ

LOCATION.--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.

DRAINAGE AREA.--34.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1927 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1432: 1959(P).

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 25.8 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 5-30. Records fair except those for estimated daily discharges, which are poor. Records given herein include flow over dam and through blowoff gates. No gate openings during the year. Flow regulated by Farrington Lake, capacity, 655,250,000 gal. Several measurements of water temperature were made during the year.

COOPERATION.--Water-stage recorder inspected by and records of gate openings furnished by employees of City of New Brunswick.

AVERAGE DISCHARGE.--58 years, 38.8 ft³/s, 15.32 in/yr, adjusted.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,920 ft³/s, July 21, 1975, gage height, 26.93 ft, from rating curve extended above 1,100 ft³/s on basis of weir formula; no flow at times when gates in dam were closed and water was below spillway.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1600	*535	*25.30	No other peak greater than base discharge.			

Minimum daily discharge, 2.4 ft³/s Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	36	22	36	21	23	74	8.5	81	8.0	19	7.3
2	47	38	17	41	50	22	39	11	33	7.1	10	7.3
3	23	34	25	40	32	20	29	214	16	6.6	8.1	7.1
4	15	32	35	33	24	18	23	109	12	6.0	6.9	6.7
5	12	100	23	40	20	36	19	48	37	6.3	5.9	5.9
6	11	48	125	35	23	26	17	33	34	8.4	5.3	4.7
7	10	26	72	31	20	21	15	26	16	8.8	5.1	3.1
8	10	20	38	30	17	24	14	19	15	7.6	49	2.4
9	10	17	30	23	16	23	12	16	14	7.1	25	5.3
10	11	16	28	20	15	20	12	13	11	6.4	12	34
11	11	35	25	20	17	19	12	11	9.4	5.5	12	17
12	9.9	52	24	22	127	38	13	11	9.1	5.1	8.6	10
13	9.3	26	22	18	185	34	12	10	8.4	5.3	7.3	8.2
14	9.7	19	18	15	93	27	11	9.9	7.2	5.2	40	7.1
15	10	17	23	16	59	22	13	8.9	6.9	5.6	18	6.5
16	11	17	23	14	43	19	15	8.4	40	31	9.3	5.9
17	12	15	21	15	35	18	12	8.8	61	14	7.7	5.5
18	12	16	20	15	32	17	11	14	21	9.4	6.4	5.4
19	12	20	22	16	33	16	11	11	14	7.7	6.3	5.2
20	20	17	23	15	36	15	15	8.9	11	6.5	6.7	5.1
21	25	15	24	27	34	15	15	10	9.6	5.6	8.0	4.8
22	31	15	67	50	33	15	12	54	8.3	7.0	9.6	4.7
23	66	15	39	30	39	19	11	21	7.5	6.5	8.1	4.8
24	61	15	30	14	40	20	11	16	15	5.4	6.9	7.2
25	49	15	33	15	37	21	11	12	23	4.9	32	8.2
26	41	15	26	14	35	18	11	10	10	77	105	7.8
27	40	15	29	14	33	17	10	8.9	8.2	56	28	278
28	39	15	38	13	26	16	10	13	8.4	17	12	122
29	65	45	69	12	---	16	9.3	29	8.6	10	8.5	40
30	55	29	47	12	---	15	9.2	14	8.8	8.6	6.7	26
31	44	---	37	14	---	15	---	9.7	---	9.9	6.9	---
TOTAL	811.9	795	1075	710	1175	645	488.5	797.0	564.4	375.5	500.3	663.2
MEAN	26.2	26.5	34.7	22.9	42.0	20.8	16.3	25.7	18.8	12.1	16.1	22.1
MAX	66	100	125	50	185	38	74	214	81	77	105	278
MIN	9.3	15	17	12	15	15	9.2	8.4	6.9	4.9	5.1	2.4
(†)	+0.3	-0.1	+0.1	-0.2	+0.1	0	-0.3	0	0	+0.3	-0.3	+0.3
MEAN‡	26.5	26.4	34.8	22.7	42.1	20.8	16.0	25.7	18.8	12.4	15.8	22.4
CFSM‡	0.77	0.77	1.01	0.66	1.22	0.60	0.47	0.75	0.55	0.36	0.46	0.65
IN.‡	0.89	0.85	1.17	0.76	1.27	0.70	0.52	0.86	0.61	0.41	0.53	0.73

CAL YR 1984 TOTAL 18438.9 MEAN 50.4 MAX 685 MIN 9.3 MEAN‡ 50.3 CFSM‡ 1.46 IN.‡ 19.92
WTR YR 1985 TOTAL 8600.8 MEAN 23.6 MAX 278 MIN 2.4 MEAN‡ 23.6 CFSM‡ 0.69 IN.‡ 9.31

† Change in contents, in cubic feet per second, in Farrington Lake.
‡ Adjusted for change in contents.

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 mi².

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
FEB 13...	0950	550	166	5.4	.0	12.5	87	3.8	<20	>2400
MAR 27...	0945	36	215	6.5	8.0	12.6	106	E1.3	<20	5
MAY 20...	0930	21	250	6.0	15.0	7.5	74	E1.9	70	79
JUL 01...	1045	14	280	5.8	18.0	8.8	92	E2.0	330	1600
AUG 06...	1130	12	283	5.9	20.0	6.1	67	2.7	220	350

DATE	HARD-NESS (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)
FEB 13...	23	6.0	1.9	18	3.9	2.0	18	32	.10
MAR 27...	44	12	3.3	16	2.8	2.0	40	25	.10
MAY 20...	60	18	3.6	20	3.9	9.0	42	27	.20
JUL 01...	71	23	3.4	18	4.0	22	43	25	.30
AUG 06...	75	24	3.6	24	1.5	17	45	34	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 13...	3.3	84	.034	.85	.550	1.1	2.0	.840	4.3
MAR 27...	8.9	110	.012	.70	2.50	2.6	3.3	.110	3.1
MAY 20...	10	130	.040	4.1	.450	.86	4.9	.090	3.3
JUL 01...	10	140	.027	5.3	.140	E.12	--	.070	4.2
AUG 06...	11	150	.380	5.1	.730	1.2	6.3	.140	4.0

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 mi².

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
FEB 13...	1120	95	94	5.8	1.0	11.6	83	3.0	80	>2400
MAR 27...	1150	--	116	6.2	8.0	12.4	105	<.9	<20	<2
JUN 10...	1200	--	116	6.6	21.0	7.8	88	1.7	170	920
JUL 01...	1230	--	114	5.9	18.0	9.7	101	E1.8	80	>2400
AUG 06...	1020	--	106	5.4	18.5	9.8	104	<.5	70	350

DATE	HARD-NESS (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)
FEB 13...	19	4.3	2.1	5.5	3.6	3.0	15	12	.10
MAR 27...	32	7.4	3.4	5.4	2.0	3.0	24	12	.20
JUN 10...	35	8.2	3.5	5.3	2.2	9.0	20	10	.30
JUL 01...	33	7.6	3.3	4.8	2.3	7.0	20	11	.30
AUG 06...	36	8.5	3.5	4.5	3.3	7.0	23	11	.30

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 13...	4.9	49	.037	1.1	.400	1.6	2.6	.460	4.6
MAR 27...	9.4	66	.009	.98	.120	.21	1.2	.040	1.9
JUN 10...	11	66	.035	.76	.220	.83	1.6	.150	7.3
JUL 01...	8.3	62	.010	.66	.200	.39	1.1	.180	3.7
AUG 06...	10	68	.006	.62	.080	.38	1.0	.150	4.1

01405340 MANALAPAN BROOK AT FEDERAL ROAD NEAR MANALAPAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 10...	1200	<.5	<10	1	<10	50	<1	10	<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)	PHENOLS TOTAL (UG/L)
JUN 10...	3600	5	90	<.1	9	<1	40	<1

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929 (levels by Duhernal Water System). January 1957 to September 1966 at datum 17.72 ft higher.

REMARKS.--No estimated daily discharges. Records good. Discharge given herein includes flow through waste gates when open. No gate openings this year. Some regulation by Lake Manalapan, Helmetta Pond, and DeVoe Lake. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 64.6 ft³/s, 21.55 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft³/s, May 30, 1968, elevation, 19.90 ft, waste gates open; no flow part or all of some days in many years when gates were closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 504 ft³/s, Feb. 14, elevation, 18.84 ft; minimum, 8.2 ft³/s, July 25, 26, elevation, 17.81 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	35	44	47	28	39	62	21	69	15	42	25
2	62	33	39	49	50	39	70	21	77	16	54	23
3	52	31	38	52	58	39	47	98	38	18	31	22
4	38	31	45	48	42	36	40	184	27	19	22	21
5	32	75	45	49	34	43	38	81	29	30	18	21
6	30	106	109	49	34	45	35	45	31	25	16	21
7	29	60	139	46	32	37	32	37	25	20	14	20
8	29	47	74	46	29	38	30	31	24	19	31	19
9	29	42	53	37	28	40	29	27	25	17	37	31
10	29	41	48	30	28	37	28	26	24	17	28	95
11	29	45	46	29	28	34	28	24	22	17	22	69
12	29	74	44	28	69	42	29	23	19	14	19	36
13	28	63	42	30	308	58	28	22	20	14	25	27
14	27	47	40	29	402	46	27	21	19	19	30	22
15	27	40	41	30	108	39	28	19	17	16	23	18
16	27	39	44	26	69	35	29	17	50	21	19	18
17	26	38	42	27	57	34	28	18	79	17	18	17
18	26	36	40	27	53	32	26	22	44	17	16	16
19	27	39	40	29	52	31	26	22	31	16	20	14
20	27	40	44	29	54	32	26	20	27	12	42	14
21	27	37	44	37	49	32	26	22	25	10	40	14
22	27	35	68	58	45	31	25	42	24	12	42	13
23	33	34	64	37	53	33	25	28	21	13	34	13
24	41	34	49	26	58	39	26	26	22	12	28	16
25	41	34	47	27	54	41	25	23	26	9.6	40	17
26	36	34	44	27	50	37	26	21	29	24	118	18
27	34	34	43	26	47	34	25	18	25	44	53	74
28	33	34	50	25	42	31	23	19	28	35	30	211
29	40	47	76	25	---	32	23	32	43	24	26	226
30	45	55	64	24	---	31	22	30	18	19	23	61
31	38	---	50	25	---	32	---	24	---	18	28	---
TOTAL	1039	1340	1656	1074	1961	1149	932	1064	958	579.6	989	1212
MEAN	33.5	44.7	53.4	34.6	70.0	37.1	31.1	34.3	31.9	18.7	31.9	40.4
MAX	62	106	139	58	402	58	70	184	79	44	118	226
MIN	26	31	38	24	28	31	22	17	17	9.6	14	13
CFSM	.82	1.10	1.31	.85	1.72	.91	.76	.84	.78	.46	.78	.99
IN.	.95	1.22	1.51	.98	1.79	1.05	.85	.97	.88	.53	.90	1.11

CAL YR 1984 TOTAL 31057 MEAN 84.9 MAX 1190 MIN 24 CFSM 2.09 IN. 28.39
WTR YR 1985 TOTAL 13953.6 MEAN 38.2 MAX 402 MIN 9.6 CFSM .94 IN. 12.75

01405440 MANALAPAN BROOK AT BRIDGE STREET AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'26", long 74°23'26", Middlesex County, Hydrologic Unit 02030105, at bridge on Bridge Street in Spotswood, 150 ft downstream from Cedar Brook, and 400 ft below DeVoe Lake Dam.

DRAINAGE AREA.--43.9 mi².

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 23...	1000	E43	129	5.4	.0	12.0	82	E1.6	50	2
MAR 27...	1040	37	121	5.7	10.0	12.6	112	--	<20	17
MAY 20...	0950	29	117	5.4	16.0	9.5	96	E1.3	<20	130
JUL 01...	1140	20	132	4.2	20.0	9.6	105	E1.6	50	210
AUG 06...	1240	20	114	4.7	20.0	9.8	107	<1.0	<20	540

DATE	HARD-NESS (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 23...	33	6.9	3.9	9.2	2.4	4.0	24	18	.10
MAR 27...	31	6.6	3.5	6.8	1.9	2.0	25	14	.10
MAY 20...	36	8.8	3.4	8.9	2.5	2.0	24	14	<.10
JUL 01...	38	8.5	4.0	5.9	2.1	1.0	34	12	.10
AUG 06...	33	7.5	3.5	6.0	2.8	1.0	26	12	.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 23...	8.9	76	.012	1.4	.560	1.0	2.4	.100	1.1
MAR 27...	6.4	65	.006	1.0	.140	.41	1.4	.050	1.8
MAY 20...	5.6	68	.004	.78	.230	.61	1.4	.050	2.3
JUL 01...	6.8	74	.003	.84	.140	.37	1.2	.020	2.1
AUG 06...	5.3	64	<.003	.66	.060	.28	.94	.030	2.2

01405500 SOUTH RIVER AT OLD BRIDGE, NJ

LOCATION.--Lat 40°24'22", long 74°22'08", Middlesex County, Hydrologic Unit 02030105, on right abutment of Duhernal Dam, 0.6 mi south of Old Bridge, 2.3 mi upstream from Deep Run, and 9.1 mi upstream from mouth.

DRAINAGE AREA.--94.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1939 to current year.

REVISED RECORDS.--WSP 1902: 1957. WDR NJ-82-1: 1975-80(P).

GAGE--Water-stage recorder above concrete dam. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 25, Oct. 29 to Nov. 25. Records good except those for periods when waste gates were open, Oct. 25, Oct. 29 to Nov. 25, which are fair. Records include flow over dam and through waste gates when open. Flow past this station is affected by pumpage from well fields for industrial use by Duhernal Water System. Some regulation by Duhernal Lake, capacity, 138,000,000 gal, Lake Manalapan, DeVoe Lake, and several small ponds in headwater tributaries. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years, 142 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft³/s, Sept. 15, 1944, elevation, 11.71 ft, waste gates open; maximum gage height, 11.73 ft, Aug. 28, 1971; no flow on days when waste gates were closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 13	1800	*1,260	*10.76	Sept. 28	1400	*1,260	*10.76

No flow part of Nov. 25 when waste gates were closed and water was below spillway.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	75	116	131	66	101	172	45	188	37	156	51
2	192	71	92	132	165	100	193	45	232	33	161	42
3	161	69	88	149	174	100	132	253	108	30	74	38
4	103	68	117	129	122	93	107	523	64	28	44	35
5	78	223	113	134	96	107	94	227	64	44	34	32
6	67	255	282	144	93	127	83	143	82	53	30	28
7	63	160	368	123	85	101	75	112	62	40	27	26
8	61	92	186	122	76	94	70	90	53	35	66	26
9	61	86	145	105	72	107	68	72	54	32	126	51
10	65	83	125	83	71	96	65	63	52	31	66	214
11	63	90	116	78	70	87	64	57	45	30	45	158
12	61	180	109	77	191	107	64	53	40	27	39	88
13	59	120	101	80	909	168	64	47	45	26	46	54
14	56	91	95	78	780	131	61	45	39	25	73	43
15	55	81	97	80	255	104	62	41	35	29	98	36
16	55	78	107	72	180	88	65	38	139	39	47	33
17	56	75	98	68	155	83	64	38	262	38	35	31
18	57	73	91	68	145	79	60	49	141	39	29	29
19	57	76	91	71	142	77	55	56	95	31	37	28
20	59	78	107	72	149	74	58	45	66	26	124	28
21	59	75	105	56	137	74	64	45	53	24	105	27
22	59	72	188	56	129	70	60	116	45	28	149	26
23	76	70	176	58	152	76	57	82	40	47	90	27
24	104	70	133	60	166	97	57	59	41	38	56	32
25	88	69	125	63	157	107	56	51	61	27	86	37
26	76	69	119	66	144	99	56	43	57	55	251	36
27	77	69	108	62	133	82	54	38	46	221	137	291
28	74	69	139	59	116	77	50	38	44	137	74	972
29	81	115	217	58	---	74	48	79	62	59	51	557
30	97	164	177	57	---	71	47	80	50	39	44	168
31	84	---	142	57	---	69	---	54	---	35	51	---
TOTAL	2395	2966	4273	2648	5130	2920	2225	2727	2365	1383	2451	3244
MEAN	77.3	98.9	138	85.4	183	94.2	74.2	88.0	78.8	44.6	79.1	108
MAX	192	255	368	149	909	168	193	523	262	221	251	972
MIN	55	68	88	56	66	69	47	38	35	24	27	26

CAL YR 1984 TOTAL 82218 MEAN 225 MAX 3090 MIN 49
WTR YR 1985 TOTAL 34727 MEAN 95.1 MAX 972 MIN 24

RESERVOIRS IN RARITAN RIVER BASIN

01396790 SPRUCE RUN RESERVOIR.--Lat 40°38'30", long 74°55'19", 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 mi². PERIOD OF RECORD, November 1963 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

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, 11,640,000,000 gal, Apr. 2, 1970, elevation, 274.38 ft; minimum observed, 3,100,000,000 gal, Oct. 18, 1983, elevation, 246.68 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 10,100,000,000 gal, July 1, elevation, 270.84 ft; minimum observed, 6,050,000,000 gal, Sept. 26, elevation, 258.96 ft.

REVISED RECORDS.--WDR NJ-84-1: (M).

REVISIONS.--Reservoir contents for water year 1984 as published in the 1984 report were found to be in error. The corrected figures are in the table below.

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 mi². PERIOD OF RECORD, March 1966 to current year. Nonrecording gage read daily. Datum of gage is National Geodetic Vertical Datum of 1929.

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, 48,390,000,000 gal, Sept. 30, elevation, 375.99 ft; minimum observed, 47,290,000,000 gal, Jan. 26, elevation, 374.67 ft.

REVISIONS.--Reservoir contents for water year 1984 as published in the 1984 report were found to be in error. The corrected figures are in the table below.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 (revised)

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
	01396790 SPRUCE RUN RESERVOIR			01397050 ROUND VALLEY RESERVOIR		
Sept. 30.....	249.71	3,700	-	366.02	40,600	-
Oct. 31.....	248.36	3,500	-10.0	366.00	40,600	0
Nov. 30.....	253.33	4,300	+41.3	367.18	41,400	+41.3
Dec. 31.....	263.54	7,470	+158	369.93	43,600	+110
CAL YR 1983....	-	-	-12.5	-	-	+27.5
Jan. 31.....	266.41	8,420	+47.4	371.97	45,200	+79.9
Feb. 29.....	272.19	10,650	+119	373.35	46,300	+58.7
Mar. 31.....	273.10	11,060	+20.5	374.00	46,800	+25.0
Apr. 30.....	272.76	10,900	-8.2	374.67	47,300	+25.8
May 31.....	273.26	11,150	+12.5	375.58	48,080	+38.9
June 30.....	273.09	11,060	-4.6	375.76	48,180	+5.2
July 31.....	273.00	11,000	-3.0	375.33	47,830	-17.5
Aug. 31.....	272.03	10,590	-20.5	375.08	47,680	-7.5
Sept. 30.....	268.15	9,100	-76.8	374.82	47,420	-13.4
WTR YR 1984....	-	-	+23.0	-	-	+28.8

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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
	01396790 SPRUCE RUN RESERVOIR			01397050 ROUND VALLEY RESERVOIR		
Sept. 30.....	268.15	9,100	- 374.82	47,420	-	
Oct. 31.....	265.11	7,980	-55.9	374.95	47,550	+6.5
Nov. 30.....	263.08	7,270	-36.6	374.70	47,300	-12.9
Dec. 31.....	265.00	7,950	+33.9	374.86	47,460	+8.0
CAL YR 1984....	-	-	+2.7	-	-	+16.4
Jan. 31.....	262.17	7,010	-46.9	374.68	47,290	-8.5
Feb. 28.....	263.79	7,580	+31.5	374.87	47,470	+9.9
Mar. 31.....	265.50	8,090	+25.4	374.94	47,540	+3.5
Apr. 30.....	265.26	8,030	-3.1	374.84	47,440	-5.2
May 31.....	269.40	9,530	+74.9	375.21	47,760	+16.0
June 30.....	270.84	10,100	+29.4	375.12	47,710	-2.6
July 31.....	268.16	9,100	-49.9	375.02	47,620	-4.5
Aug. 31.....	264.03	7,660	-71.9	375.19	47,750	+6.5
Sept. 30.....	262.01	6,950	-36.6	376.00	48,400	+33.5
WTR YR 1985....	-	-	-8.8	-	-	+4.2

* 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 sta 01397000), at the Hamden Pumping Station, for storage in Round Valley Reservoir. Records provided by New Jersey Water Supply Authority.
REVISIONS.--The figures of diversions as published in the 1984 report were in error. The correct figures are in the table below.

01400490 Johns-Manville Products Corporation diverts water 1,500 ft upstream from the gaging station on Raritan River at Manville (sta 01400500) for industrial processes and cooling purposes. The effluent is then mixed with that from the Borough of Manville sewage treatment plant and discharged into the Raritan River 600 ft downstream from the Millstone River. Records provided by the Johns-Manville Products Corporation.
REVISED RECORDS.--WDR NJ-84-1: 1983.

01400509 Elizabethtown Water Company diverts water from the Raritan and Millstone Rivers just upstream from the mouth of the Millstone River. Records given herein represent the total diversion from both rivers. Records provided by the Elizabethtown Water Company.

01400836 Water is diverted from Carnegie Lake (Millstone River) to the Delaware and Raritan Canal at the aqueduct 2.3 mi upstream from the gaging station on the Delaware and Raritan Canal (sta 01460500). Records provided by New Jersey Water Supply Authority.
REVISIONS.--The figures of diversions as published in the 1984 report were in error. The correct figures are in the table below.

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. Records provided by the New Jersey Water Supply Authority.
REVISIONS.--The figures of diversions as published in the 1984 report were in error. The correct figures are in the table below.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MONTH	01396920 HAMDEN PUMPING STATION		01400490 JOHNS-MANVILLE PRODUCTS CORPORATION	01400509 ELIZABETHTOWN WATER COMPANY	01400836 CARNEGIE LAKE		01402910 TEN MILE LOCK DIVERSION	
October	a0	0	3.6	144	a3.5	17.8	a9.0	37.5
November	a28.9	0	3.2	141	a0	32.4	a0	46.6
December	a73.5	0	2.8	144	a0	45.4	a0	0
CAL YR 1984	b60.5	0	3.7	141	b2.1	23.5	b1.7	14.4
January	a63.7	0	2.8	153	a0	30.4	a0	0
February	a32.6	0	3.1	159	a0	27.8	a0	0
March	a0	0	2.8	155	a2.5	31.7	a0	0
April	a0	0	3.3	107	a9.8	28.3	a0	11.6
May	a0	0	3.5	165	a28.5	29.2	a0	13.6
June	a0	0	3.4	165	a30.2	29.8	a21.0	22.6
July	a0	0	3.4	172	a54.2	8.7	a1.9	63.5
August	a0	0	3.2	180	a42.9	10.5	a22.9	47.8
September	a0	0	2.6	154	a18.2	2.4	a43.4	54.5
WTR YR 1985	a16.6	0	3.1	153	a15.8	24.5	a8.2	24.8

a Corrected figures for water year 1984.
b Corrected figures for calendar year 1983.

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. Water-quality samples collected at bridge on Swimming River Road, 800 ft downstream from gaging station.

DRAINAGE AREA.--49.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1922 to current year.

REVISED RECORDS.--WDR NJ-83-1. Drainage area. WSP 891: 1939.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 30.00 ft above National Geodetic Vertical Datum of 1929. 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.--No estimated daily discharges. Records fair. 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 Monmouth Consolidated Water Co.

AVERAGE DISCHARGE.--63 years, 80.4 ft³/s, 22.51 in/yr, adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,910 ft³/s, Oct. 27, 1943, gage height, 8.96 ft, site and datum then in use, from rating curve extended above 1,000 ft³/s on basis of weir formula; no flow some days in many years.

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 ft³/s.

EXTREMES OF CURRENT YEAR.--Maximum discharge, 1,370 ft³/s, Feb. 12, gage height, 6.04 ft; no flow Apr.31 to May 2 and May 15 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	6.0	8.6	21	.21	24	25	.00	.00	.00	.00	.00
2	29	5.5	7.4	21	4.5	24	27	.00	.00	.00	.00	.00
3	29	4.2	7.1	23	9.8	22	20	11	.00	.00	.00	.00
4	20	3.4	9.8	20	9.1	19	17	41	.00	.00	.00	.00
5	16	21	9.3	24	8.2	25	14	25	.00	.00	.00	.00
6	13	35	90	21	9.9	24	12	16	.00	.00	.00	.00
7	9.7	24	52	18	9.2	20	8.5	12	.00	.00	.00	.00
8	8.3	17	26	16	7.9	22	7.8	9.1	.00	.00	.00	.00
9	7.8	13	20	13	6.4	22	6.8	5.7	.00	.00	.00	.00
10	7.0	12	18	9.1	5.0	20	6.0	3.5	.00	.00	.00	.00
11	5.8	11	16	8.2	4.3	18	5.0	1.9	.00	.00	.00	.00
12	4.5	24	15	7.8	277	29	4.8	.70	.00	.00	.00	.00
13	3.5	20	13	7.5	465	32	4.2	.25	.00	.00	.00	.00
14	2.7	15	12	6.1	88	27	3.7	.02	.00	.00	.00	.00
15	1.9	11	13	6.0	54	24	4.0	.00	.00	.00	.00	.00
16	1.1	9.6	13	4.5	38	18	4.8	.00	.00	.00	.00	.00
17	.64	7.5	12	3.7	32	17	4.4	.00	.00	.00	.00	.00
18	.38	6.0	11	3.7	28	17	3.9	.00	.00	.00	.00	.00
19	.27	6.4	10	3.7	27	14	3.3	.00	.00	.00	.00	.00
20	.21	6.0	12	3.6	28	13	2.9	.00	.00	.00	.00	.00
21	.12	4.7	10	2.8	24	12	3.0	.00	.00	.00	.00	.00
22	.04	3.8	19	1.8	24	11	2.3	.00	.00	.00	.00	.00
23	.37	3.3	18	1.0	31	12	1.8	.00	.00	.00	.00	.00
24	1.3	2.9	15	.57	37	14	1.4	.00	.00	.00	.00	.00
25	2.1	2.5	15	.42	37	15	1.2	.00	.00	.00	.00	.00
26	2.3	2.1	13	.41	36	13	1.1	.00	.00	.00	.00	.00
27	2.4	1.8	13	.32	36	12	.52	.00	.00	.00	.00	.00
28	2.4	1.7	19	.22	28	12	.17	.00	.00	.00	.00	.00
29	5.3	6.4	29	.15	---	11	.01	.00	.00	.00	.00	.00
30	7.5	8.8	25	.09	---	10	.00	.00	.00	.00	.00	.00
31	6.9	---	21	.06	---	9.3	---	.00	---	.00	.00	---
TOTAL	198.03	295.6	572.2	248.74	1364.51	562.3	196.60	126.17	.00	.00	.00	.00
MEAN	6.39	9.85	18.5	8.02	48.7	18.1	6.55	4.07	.00	.00	.00	.00
MAX	29	35	90	24	465	32	27	41	.00	.00	.00	.00
MIN	.04	1.7	7.1	.06	.21	9.3	.00	.00	.00	.00	.00	.00
(†)	44.3	42.4	42.4	37.7	45.0	32.7	33.0	38.4	41.1	30.5	41.9	51.8
MEAN‡	50.7	52.3	60.9	45.7	93.7	50.8	39.6	42.5	41.1	30.5	41.9	51.8
CFSM‡	1.03	1.06	1.24	.93	1.91	1.03	.80	.86	.84	.62	.85	1.05
IN‡	1.19	1.19	1.43	1.07	1.98	1.19	.90	1.00	.94	.72	.99	1.17

CAL YR 1984 TOTAL 29530.02 MEAN 80.7 MAX 1510 MIN .04 MEAN‡ 121 CFSM‡ 2.46 IN‡ 33.40
WTR YR 1985 TOTAL 3564.15 MEAN 9.76 MAX 465 MIN .00 MEAN‡ 52.0 CFSM‡ 1.06 IN‡ 14.35

† Diversion and change in contents in Swimming River Reservoir, in cubic feet per second.
‡ Adjusted for diversion and change in contents.

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 21-31 and Feb. 18, 19. Records good except those above 20 ft³/s, which are fair, and those for periods of no gage-height record, Jan. 21-31 and Feb. 18, 19, which are poor. Diversion above station by Monmouth Consolidated Water Co. for municipal supply (records given herein) and by farmers for irrigation. Several measurements of water temperature were made during the year.

COOPERATION.--Water-stage recorder inspected by and records of diversion provided by Monmouth Consolidated Water Co.

AVERAGE DISCHARGE.--19 years, 14.6 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 601 ft³/s, May 30, 1984, gage height, 5.69 ft; maximum gage height, 7.84 ft, Dec. 26, 1969; no flow many days during many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 277 ft³/s, Sept. 27, gage height, 4.68 ft; no flow part of Oct. 4, May 6, 22, 23, June 2, July 6, 22, 26, Aug. 8, 12, 13, 15, 22, Sept. 3, 4, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	1.4	9.9	13	16	5.9	18	3.3	21	4.0	4.3	2.1
2	13	2.8	9.5	15	21	7.0	8.5	3.1	4.0	3.9	2.4	1.9
3	4.3	5.7	11	15	15	5.9	6.8	31	3.6	4.2	1.8	1.5
4	1.4	5.9	10	13	12	9.1	6.1	10	2.8	3.1	1.6	1.0
5	3.9	13	5.9	15	11	18	5.8	6.3	5.1	4.0	1.6	3.9
6	3.6	6.1	54	13	12	15	5.6	3.4	4.5	4.0	1.3	5.5
7	3.6	1.9	20	14	11	14	5.0	1.7	3.1	2.6	3.8	7.2
8	4.5	3.5	16	14	11	16	5.2	1.8	4.8	2.2	7.1	7.5
9	3.8	5.0	14	12	10	15	4.8	2.9	3.9	2.4	2.9	17
10	4.4	5.0	13	12	10	14	4.3	3.1	2.7	2.1	2.3	9.8
11	4.7	7.2	13	13	11	10	4.9	2.6	2.0	1.8	1.9	3.2
12	5.0	18	13	13	64	18	6.4	2.3	2.5	1.4	12	1.9
13	4.8	5.0	12	13	48	13	6.2	2.5	2.2	1.5	2.3	1.4
14	4.7	4.5	12	12	21	9.3	6.4	2.2	1.9	2.0	7.1	1.6
15	4.8	7.6	14	13	17	7.9	7.1	2.3	1.8	1.8	5.0	1.4
16	4.7	10	13	11	15	7.2	9.7	2.2	44	3.7	3.2	1.1
17	4.7	9.5	12	12	14	7.7	9.5	3.0	26	3.9	1.8	1.1
18	4.9	9.6	12	12	13	7.3	5.6	4.1	12	1.8	1.7	.94
19	5.0	11	13	12	14	6.7	5.4	2.2	5.9	1.3	3.3	.92
20	5.2	9.7	13	11	14	7.5	6.7	1.9	3.7	1.1	2.4	1.2
21	5.5	9.4	13	13	11	6.9	5.7	1.8	4.0	1.0	3.2	3.2
22	5.4	9.3	17	12	8.8	6.6	6.8	3.4	3.3	4.2	2.9	3.2
23	7.4	9.0	14	11	11	9.8	6.0	2.5	3.2	1.4	2.0	2.7
24	7.6	9.0	13	10	11	9.6	4.9	2.6	17	.93	1.4	4.7
25	3.3	9.0	15	10	9.3	8.7	5.0	2.4	9.0	.90	19	2.4
26	4.5	9.0	13	11	8.1	7.4	4.0	2.0	3.5	7.5	9.7	8.0
27	6.9	9.0	16	9.6	8.0	7.1	4.5	1.6	4.3	18	4.1	118
28	6.5	9.1	18	9.2	6.2	7.3	7.6	2.6	5.3	10	3.2	27
29	7.2	10	17	9.0	---	7.2	5.4	4.6	5.2	4.8	2.7	9.8
30	2.3	6.1	14	8.8	---	6.8	3.7	3.1	4.8	2.6	2.4	6.5
31	1.5	---	13	9.4	---	7.2	---	3.0	---	3.4	2.2	---
TOTAL	161.1	231.3	453.3	371.0	433.4	299.1	191.6	121.5	217.1	107.53	122.6	257.66
MEAN	5.20	7.71	14.6	12.0	15.5	9.65	6.39	3.92	7.24	3.47	3.95	8.59
MAX	13	18	54	15	64	18	18	31	44	18	19	118
MIN	1.4	1.4	5.9	8.8	6.2	5.9	3.7	1.6	1.8	.90	1.3	.92
(†)	7.9	4.0	0	0	1.5	4.7	5.9	6.2	6.0	6.2	6.2	4.6

CAL YR 1984 TOTAL 8099.6 MEAN 22.1 MAX 431 MIN 1.0
WTR YR 1985 TOTAL 2967.19 MEAN 8.13 MAX 118 MIN .90

† Diversion, in cubic feet per second, from Shark River by Monmouth Consolidated Water Co., for municipal supply.

01407705 SHARK RIVER NEAR NEPTUNE CITY, 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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 23...	1240	9.5	167	6.6	.0	12.0	82	<.5	<20	<2
MAR 19...	0950	6.4	157	6.3	3.0	11.5	85	E1.2	20	14
MAY 20...	1040	1.9	150	6.5	13.0	9.1	86	E1.3	70	240
JUL 15...	1130	2.5	162	5.6	20.0	8.4	93	E1.3	220	>2400
AUG 12...	1050	12	124	5.9	21.5	8.6	97	E1.7	3500	>2400

DATE	HARD-NESS (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 23...	40	13	1.9	13	2.0	18	20	23	.10
MAR 19...	40	13	1.8	11	2.1	17	23	22	<.10
MAY 20...	43	14	1.9	9.8	2.2	22	21	19	.10
JUL 15...	44	15	1.7	8.8	2.7	25	20	18	.10
AUG 12...	34	11	1.7	8.9	2.4	7.0	22	16	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 23...	12	96	.008	.22	.180	.47	.69	.070	1.7
MAR 19...	12	95	.003	.22	.150	.28	.50	.040	2.1
MAY 20...	13	94	.005	.17	.170	.41	.58	.040	2.4
JUL 15...	13	94	.013	.27	.120	.52	.79	.050	3.0
AUG 12...	8.6	75	.020	.46	.170	.85	1.3	.160	9.3

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°12'13", long 74°03'58", Monmouth County, Hydrologic Unit 02030104, on left bank 50 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 Carlies Avenue, 600 ft downstream from gaging station.

DRAINAGE AREA.--6.46 mi².

WATER-DISCHARGE RECORDS

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 and concrete control. Datum of gage is 13.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those above 150 ft³/s, which are poor. Division above station by Monmouth Consolidated Water Co. for municipal supply (records given herin) 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 Monmouth Consolidated Water Co.

AVERAGE DISCHARGE.--19 years, 10.3 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORDS.--Maximum discharge, 1,830 ft³/s, Sept. 12, 1971, from rating curve extended above 150 ft³/s; maximum gage height, 7.00 ft, December 16, 1974; no flow June 7, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 272 ft³/s, Sept. 27, from rating curve extended above 150 ft³/s, gage height 3.26 ft; minimum, 0.72 ft³/s, July 13, 15, 16, gage height, 1.27 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	3.4	3.7	4.9	12	3.4	16	2.0	27	2.0	7.0	1.8
2	12	3.4	3.4	7.2	18	4.2	4.7	2.3	4.1	2.0	2.2	1.7
3	5.1	3.2	7.8	5.6	6.9	3.5	3.6	37	2.6	2.3	1.8	1.5
4	3.8	3.2	6.6	4.6	4.3	3.7	3.4	8.9	2.0	1.8	1.6	1.4
5	3.3	11	4.6	8.2	3.5	6.7	3.2	4.3	5.5	4.8	1.6	1.3
6	3.0	5.0	51	4.9	3.6	3.9	3.1	3.5	4.2	2.3	1.2	1.1
7	3.0	3.6	9.0	4.4	3.4	3.4	2.8	3.2	2.2	1.8	2.4	1.0
8	2.9	3.4	5.5	4.2	3.3	4.9	2.8	2.6	4.6	1.6	11	1.2
9	3.1	3.4	4.7	3.5	3.2	3.8	2.7	2.4	3.1	1.7	3.1	8.6
10	3.2	3.4	4.4	3.3	3.2	3.4	2.6	2.2	2.2	1.7	2.0	4.6
11	3.2	11	4.2	3.5	3.5	3.3	3.0	2.2	1.8	1.4	1.8	2.4
12	3.0	24	3.9	3.5	63	12	2.8	2.1	2.4	1.2	2.0	1.8
13	3.0	5.9	3.8	3.5	26	5.7	2.6	2.1	2.0	.94	1.6	1.7
14	3.0	4.2	3.7	3.5	8.3	4.1	2.6	2.0	1.6	1.1	8.0	1.5
15	2.9	3.7	5.8	3.6	6.0	3.6	2.7	1.8	1.5	1.0	2.4	1.4
16	2.3	3.6	4.2	3.1	5.0	3.8	3.0	1.8	51	2.7	1.6	1.4
17	2.8	3.4	3.9	3.2	4.5	3.4	2.6	1.9	25	3.6	1.6	1.2
18	2.9	3.4	3.7	3.3	4.3	3.1	2.5	4.2	10	1.6	1.4	1.2
19	2.9	4.6	5.2	3.4	4.6	3.0	2.6	2.3	4.8	1.1	3.4	1.2
20	2.9	3.5	4.6	3.2	4.6	3.1	4.1	1.9	2.9	1.1	2.2	1.2
21	3.1	3.4	6.0	3.8	4.8	2.9	3.0	1.6	2.3	1.0	6.0	1.2
22	3.2	3.3	8.4	3.6	4.4	2.8	2.9	6.9	2.0	6.8	3.2	1.3
23	7.9	3.2	4.5	3.0	5.3	4.3	2.8	3.1	2.0	1.9	2.1	1.5
24	8.7	3.3	4.0	3.0	5.1	3.5	2.5	2.7	21	1.1	1.8	3.6
25	4.7	3.2	5.6	3.1	4.5	3.3	2.6	2.1	12	1.1	23	2.1
26	4.9	3.2	3.8	3.2	4.1	2.9	2.6	1.9	3.2	19	9.5	7.5
27	4.0	3.2	8.4	2.8	3.9	2.8	2.3	1.8	2.5	22	4.2	98
28	3.7	3.2	11	2.8	3.5	2.8	2.3	4.1	3.0	3.9	2.6	12
29	6.8	12	7.1	2.7	---	2.8	2.1	6.0	2.5	2.3	2.1	3.9
30	4.0	4.6	5.0	2.7	---	2.8	2.1	2.4	2.1	2.1	1.8	3.0
31	3.6	---	4.8	2.9	---	2.9	---	2.0	---	3.5	1.6	---
TOTAL	135.9	152.9	212.3	118.2	226.8	119.8	98.6	125.3	213.1	102.44	117.8	173.3
MEAN	4.38	5.10	6.85	3.81	8.10	3.86	3.29	4.04	7.10	3.30	3.80	5.78
MAX	13	24	51	8.2	63	12	16	37	51	22	23	98
MIN	2.3	3.2	3.4	2.7	3.2	2.8	2.1	1.6	1.5	.94	1.2	1.0
(†)	0.1	0	0	0	0	0	0	0.2	0.6	0	0	0

CAL YR 1984 TOTAL 5703.5 MEAN 15.6 MAX 583 MIN 2.1
WTR YR 1985 TOTAL 1796.44 MEAN 4.92 MAX 98 MIN .94

† Diversion, in cubic feet per second, from Jumping Brook, for municipal supply, by Monmouth Consolidated Water Co.

01407760 JUMPING BROOK NEAR NEPTUNE CITY, 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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 23...	1130	3.0	178	5.8	.0	11.8	81	<.7	<20	<2
MAR 19...	1100	2.8	162	5.5	4.5	12.2	93	<.9	<20	<2
MAY 20...	1115	1.9	148	5.4	16.0	9.0	91	<.8	<20	130
JUL 15...	1200	1.2	145	4.3	22.5	8.1	94	<.6	130	1600
AUG 12...	1140	1.9	109	5.3	22.5	8.8	101	E1.0	<20	920

DATE	HARD-NESS (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 23...	32	8.6	2.6	16	2.2	2.0	29	30	<.10
MAR 19...	31	8.3	2.5	15	2.1	1.0	32	28	<.10
MAY 20...	31	8.1	2.5	13	2.5	2.0	27	23	<.10
JUL 15...	31	8.5	2.3	9.8	3.0	4.0	24	21	<.10
AUG 12...	29	7.9	2.2	9.1	2.5	2.0	24	16	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 23...	9.5	99	.005	.29	.220	.59	.88	.060	1.6
MAR 19...	8.6	97	<.003	.27	.100	.31	.58	<.020	1.7
MAY 20...	9.0	86	<.003	.09	.200	.38	.47	.020	2.8
JUL 15...	9.7	81	.004	.08	.320	.55	.63	.030	4.6
AUG 12...	8.4	71	.008	.30	.250	.70	1.0	.030	3.7

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY 20...	1115	<.5	140	<1	<10	20	1	10	2

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY 20...	130	4	70	<.1	5	<1	100	6

01407997 MARSH BOG BROOK AT SQUANKUM, NJ

LOCATION.--Lat 40°10'01", long 74°09'33", Monmouth County, Hydrologic Unit 02040301, at bridge on Squankum-Yellow Brook Road in Squankum, and 0.2 mi upstream from mouth.

DRAINAGE AREA.--4.91 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-74, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
FEB 19...	0940	3.3	--	6.2	3.0	10.8	--	E2.6	<20	79
APR 02...	1140	3.5	190	6.2	7.5	9.6	81	3.7	130	280
JUN 10...	0950	1.2	190	6.7	18.0	6.5	69	2.5	80	1600
JUL 15...	1030	.94	187	6.0	21.5	6.1	69	2.7	5400	>2400
AUG 12...	0945	3.8	131	5.7	21.0	7.1	80	E1.6	2200	>2400

DATE	HARD-NESS (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)
FEB 19...	30	9.3	1.7	10	2.3	5.0	24	17	<.10
APR 02...	29	9.0	1.7	18	2.3	1.0	24	32	.10
JUN 10...	44	14	2.1	13	--	29	20	22	.10
JUL 15...	61	20	2.6	5.9	4.7	35	25	11	.20
AUG 12...	38	12	2.0	7.3	2.6	5.0	30	10	.20

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 19...	11	78	.005	.17	.530	.83	1.0	.060	2.7
APR 02...	9.5	97	.012	.12	2.25	3.0	3.1	.550	4.1
JUN 10...	12	--	.038	.20	2.58	3.0	3.2	.290	7.3
JUL 15...	13	100	.054	.92	.810	1.2	2.1	.130	7.1
AUG 12...	6.1	73	.036	.69	.690	1.2	1.9	.260	6.5

01407997 MARSH BOG BROOK AT SQUANKUM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 10...	0950	<.5	<10	<1	<10	<20	<1	<10	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)	PHENOLS TOTAL (UG/L)
JUN 10...	5400	6	50	<.1	10	<1	40	<1

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 North bound bridge on State Highway 547 (Squankum Park Road) in Squankum, and 0.4 mi downstream from Marsh Bog Brook.

DRAINAGE AREA.--44.0 mi².

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 National Geodetic Vertical Datum of 1929. Prior to Aug. 13, 1940, water-stage recorder at site 80 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--54 years, 75.4 ft³/s, 23.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,940 ft³/s, Sept. 21, 1938, gage height, 12.45 ft, from floodmark, site then in use, from rating curve extended above 900 ft³/s on basis of contracted-opening measurement of peak flow; minimum, 8.1 ft³/s, Aug. 6, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 13	0600	842	6.65	Sept. 28	0215	*984	*7.14

Minimum discharge, 21 ft³/s July 15, 16, 25 and Sept. 21, 22, gage height, 2.46 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	41	44	55	55	47	87	30	139	26	106	26
2	81	41	41	60	108	50	57	30	50	25	39	25
3	51	39	46	63	68	47	49	175	34	25	32	25
4	42	38	56	57	50	45	46	92	31	24	30	24
5	39	87	45	66	45	59	44	56	33	36	29	23
6	37	65	162	58	46	50	43	47	38	29	28	23
7	35	50	86	55	43	45	41	47	30	26	28	23
8	35	45	65	55	41	52	40	41	34	24	63	23
9	37	43	57	49	40	49	40	37	34	24	38	76
10	37	42	54	47	39	44	40	35	29	23	31	100
11	36	44	53	49	41	42	41	33	27	23	29	36
12	36	82	51	48	201	72	41	31	27	23	67	30
13	34	55	50	48	400	65	40	31	27	23	35	27
14	34	47	48	48	108	53	38	30	24	23	74	26
15	34	44	53	49	80	49	40	28	23	22	43	24
16	34	43	50	44	66	47	40	29	119	27	31	24
17	34	40	49	45	58	45	38	28	83	74	29	23
18	34	40	48	46	56	44	36	44	59	28	27	23
19	34	45	50	46	57	42	37	32	51	25	103	23
20	34	42	55	45	57	42	37	28	35	23	77	23
21	33	42	52	38	53	42	37	28	31	23	67	22
22	34	40	78	43	54	41	35	52	29	35	55	22
23	76	38	58	44	60	47	34	33	27	24	38	22
24	67	37	51	45	61	46	33	35	38	22	32	32
25	52	37	57	45	58	48	34	29	64	22	70	29
26	45	37	50	44	54	43	34	27	33	76	56	33
27	43	40	53	41	52	42	32	25	29	77	41	436
28	41	39	76	41	48	41	32	26	30	41	33	377
29	57	70	74	41	---	42	32	60	29	33	30	82
30	47	51	60	41	---	41	31	30	27	31	28	60
31	42	---	55	41	---	40	---	27	---	31	29	---
TOTAL	1334	1404	1827	1497	2099	1462	1209	1276	1264	968	1418	1742
MEAN	43.0	46.8	58.9	48.3	75.0	47.2	40.3	41.2	42.1	31.2	45.7	58.1
MAX	81	87	162	66	400	72	87	175	139	77	106	436
MIN	33	37	41	38	39	40	31	25	23	22	27	22
CFSM	.98	1.06	1.34	1.10	1.70	1.07	.92	.94	.96	.71	1.04	1.32
IN.	1.13	1.19	1.54	1.27	1.77	1.24	1.02	1.08	1.07	.82	1.20	1.47

CAL YR 1984 TOTAL 37500 MEAN 102 MAX 1190 MIN 32 CFSM 2.32 IN. 31.70
WTR YR 1985 TOTAL 17500 MEAN 47.9 MAX 436 MIN 22 CFSM 1.09 IN. 14.80

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 3.89 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1977 gage located on upstream side of bridge. Nov. 17, 1977 to Dec. 19, 1984 gage located on the downstream side of bridge.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 3 and Jan. 16-31. Records good except those for periods of no gage-height record, Dec. 19 to Jan. 3 and Jan. 16-31 which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 63.6 ft³/s, 24.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft³/s, Nov. 8, 1977, gage height, 9.28 ft, from rating extended above 500 ft³/s; minimum, 11 ft³/s, many days in August and September, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	0145	*359	6.75	No other peak greater than base discharge.			

Minimum discharge, 17 ft³/s, July 25, gage height, 2.30 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	42	45	41	44	40	70	27	72	26	47	21
2	83	40	39	45	90	43	65	26	76	25	52	21
3	68	38	41	47	71	41	48	95	41	24	38	21
4	50	37	52	45	53	40	42	125	29	24	24	20
5	40	64	44	53	40	54	39	90	34	23	21	19
6	36	74	117	50	38	50	38	50	39	27	20	18
7	34	56	110	45	36	42	36	52	30	26	24	18
8	33	45	75	42	35	43	34	38	33	23	51	18
9	34	41	54	37	38	44	34	33	35	23	41	45
10	34	40	46	35	33	41	33	31	29	23	28	91
11	34	51	43	35	34	39	33	29	25	25	23	62
12	34	88	41	36	81	58	34	28	24	22	40	33
13	34	62	40	35	185	64	33	27	23	21	34	25
14	34	50	38	35	157	54	32	26	23	21	48	22
15	33	44	43	36	110	45	33	25	22	21	42	21
16	34	42	43	33	69	40	35	24	66	26	25	20
17	34	40	41	34	55	39	33	25	95	24	22	20
18	34	38	39	34	50	38	31	33	82	21	21	19
19	34	42	37	34	49	36	31	31	114	20	22	19
20	34	41	41	33	49	37	33	26	47	19	31	19
21	35	38	39	28	48	37	33	31	31	18	42	18
22	35	37	58	31	47	36	32	38	27	26	43	18
23	61	37	47	32	50	41	36	32	25	21	35	19
24	77	36	38	33	53	43	32	33	44	18	27	26
25	71	36	43	33	51	42	31	28	107	18	51	29
26	55	36	37	33	48	40	31	25	65	41	67	28
27	46	36	40	31	45	37	29	24	37	65	44	155
28	43	36	57	30	42	36	28	29	31	53	29	319
29	55	59	56	31	---	36	28	67	30	31	24	159
30	52	57	48	30	---	35	27	35	28	24	23	98
31	46	---	41	30	---	35	---	27	---	23	22	---
TOTAL	1380	1383	1533	1127	1701	1306	1074	1210	1364	802	1061	1421
MEAN	44.5	46.1	49.5	36.4	60.8	42.1	35.8	39.0	45.5	25.9	34.2	47.4
MAX	83	88	117	53	185	64	70	125	114	65	67	319
MIN	33	36	37	28	33	35	27	24	22	18	20	18
CFSM	1.28	1.32	1.42	1.04	1.74	1.21	1.03	1.12	1.30	.74	.98	1.36
IN.	1.47	1.47	1.63	1.20	1.81	1.39	1.14	1.29	1.45	.85	1.13	1.51

CAL YR 1984 TOTAL 30381 MEAN 83.0 MAX 663 MIN 31 CFSM 2.38 IN. 32.38
WTR YR 1985 TOTAL 15362 MEAN 42.1 MAX 319 MIN 18 CFSM 1.21 IN. 16.37

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 1.9 mi downstream from Union Branch, and 2.6 mi northwest of Toms River.

DRAINAGE AREA.--123 mi².

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 27 to Mar. 5. Records good except those for period of no gage-height record, Jan. 27 to Mar. 5, which are fair. Several measurements of water temperature, other than those published, were made during the year.

AVERAGE DISCHARGE.--57 years, 215 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/s, Sept. 23, 1938, gage height, 12.50 ft, from floodmark, from rating curve extended above 1,500 ft³/s; minimum, 46 ft³/s, many days in August and September 1966, gage height, 2.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 339 ft³/s, Sept. 30, gage height, 5.30 ft; minimum, 51 ft³/s, Sept. 7, gage height, 2.78 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	169	155	172	135	160	153	118	135	101	108	78
2	186	160	149	166	182	158	169	142	160	92	144	77
3	193	150	147	165	206	155	164	171	152	91	174	70
4	193	147	157	170	209	151	153	213	121	87	167	66
5	170	163	155	175	202	164	144	243	114	80	96	65
6	154	182	206	173	178	169	141	245	123	84	84	63
7	143	187	226	167	162	153	133	189	114	85	84	56
8	137	178	233	162	149	148	124	166	112	72	130	60
9	158	162	224	155	147	148	120	146	122	74	138	69
10	135	154	194	142	143	145	117	132	115	71	126	90
11	132	163	179	145	136	138	116	171	102	74	105	105
12	128	197	168	140	186	152	118	133	95	68	112	101
13	126	190	161	142	281	165	116	116	92	72	96	78
14	123	181	153	138	305	168	114	104	87	70	82	73
15	122	166	153	140	325	155	114	98	85	65	85	70
16	121	157	155	136	295	145	119	93	115	83	76	66
17	121	149	150	135	262	139	118	92	182	86	72	64
18	121	146	147	135	222	132	113	104	189	78	74	63
19	119	147	147	136	197	127	110	101	183	74	75	63
20	120	148	155	135	187	126	111	92	163	69	78	62
21	122	144	153	122	181	126	108	94	130	66	86	60
22	123	144	169	125	177	123	108	131	114	81	101	60
23	153	140	175	124	179	129	107	108	104	75	98	63
24	182	139	171	126	182	137	105	99	109	68	86	72
25	206	138	168	128	183	142	104	97	172	62	94	72
26	190	134	159	130	181	142	105	88	179	86	125	70
27	177	134	160	128	176	136	105	89	164	130	117	172
28	170	132	176	125	167	131	102	97	125	137	98	248
29	175	151	185	124	---	130	98	139	119	117	84	269
30	178	158	186	122	---	128	97	135	110	101	82	331
31	174	---	179	121	---	126	---	118	---	87	82	---
TOTAL	4707	4710	5295	4404	5535	4448	3606	4064	3887	2586	3159	2856
MEAN	152	157	171	142	198	143	120	131	130	83.4	102	95.2
MAX	206	197	233	175	325	169	169	245	189	137	174	331
MIN	119	132	147	121	135	123	97	88	85	62	72	56
CFSM	1.24	1.28	1.39	1.15	1.61	1.16	.98	1.07	1.06	.68	.83	.77
IN.	1.42	1.42	1.60	1.33	1.67	1.35	1.09	1.23	1.18	.78	.96	.86

CAL YR 1984 TOTAL 106643 MEAN 291 MAX 1800 MIN 110 CFSM 2.37 IN. 32.25
WTR YR 1985 TOTAL 49257 MEAN 135 MAX 331 MIN 56 CFSM 1.10 IN. 14.90

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 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
28...	1100	133	62	6.1	7.0	1.0	12.0	98	.6	K8	200
MAR											
21...	1130	128	65	5.8	7.0	1.5	12.0	98	.2	<4	K260
JUN											
26...	1445	179	59	5.2	19.0	4.0	8.2	89	1.5	660	1200
AUG											
28...	1045	101	66	6.0	20.5	1.0	7.9	87	.9	K80	1600

DATE	HARD-NESS (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 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)
NOV										
28...	11	2.5	1.1	5.5	1.0	4	9.0	9.0	<.10	5.4
MAR										
21...	11	2.6	1.2	5.0	1.1	3	10	9.1	<.10	3.9
JUN										
26...	13	3.3	1.1	4.2	.80	2	11	7.2	<.10	4.3
AUG										
28...	11	2.7	1.1	5.1	1.1	3	9.0	8.6	<.10	5.1

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
NOV										
28...	36	21	7.5	51	.55	.150	1.9	.020	<.010	<.010
MAR										
21...	35	11	3.8	48	.46	.150	.40	.040	<.010	<.010
JUN										
26...	34	23	11	56	.35	.110	.80	.090	.060	.010
AUG										
28...	35	11	3.0	71	.45	.090	1.8	.040	.020	<.010

01408500 TOMS RIVER NEAR TOMS RIVER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 28...	1100	70	<1	29	<.5	<1	1	<3	<1	160	2
MAR 21...	1130	150	<1	34	<.5	<1	<1	<3	8	220	1
JUN 26...	1445	130	<1	39	<.5	2	<1	<3	1	190	8
AUG 28...	1045	60	<1	26	<.5	<1	<1	<3	6	110	<1

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	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)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 28...	<4	38	<.1	<10	<1	<1	<1	16	<6	13
MAR 21...	<4	39	<.1	<10	3	<1	<1	18	<6	18
JUN 26...	6	47	.4	<10	<1	<1	<1	21	<6	29
AUG 28...	<4	28	<.1	<10	2	<1	<1	18	<6	19

01409280 WESTECUNK CREEK AT STAFFORD FORGE, NJ

LOCATION.--Lat 39°40'00", long 74°19'12", Ocean County, Hydrologic Unit 02040301, 75 ft downstream from dam, 0.2 mi south of Stafford Forge, 1.2 mi downstream from Log Swamp Branch, and 2.0 mi west of Staffordville.

DRAINAGE AREA.--15.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year. Occasional low-flow measurements, water years 1969-73, at site 400 ft downstream.

REVISED RECORDS.--WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6.36 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 6, 1981, water-stage recorder and wooden control at site 50 ft upstream at datum 9.42 ft higher.

REMARKS.--Estimated daily discharges: Jan. 10-30 and Mar. 5 to Apr. 17. Records fair except those for periods of no gage-height record, Jan. 10-30 and Mar. 5 to Ar. 17, which are poor. Flow regulated by dam 75 ft upstream. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 33.0 ft³/s, 28.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 256 ft³/s, July 4, 1978, gage height, 3.70 ft; no flow part of May 17, 1974, Sept. 7, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 9	1915	a*89	*11.39	No other peak greater than base discharge.			

a Probably due to removal of stop logs at lake upstream.

Minimum daily discharge, 2.7 ft³/s, Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	25	25	27	24	19	25	19	21	13	17	16
2	30	25	23	28	30	23	24	18	20	13	16	17
3	28	23	24	29	30	23	23	25	19	13	14	13
4	26	23	24	31	27	24	22	28	19	12	14	2.7
5	26	25	23	32	25	29	23	25	22	12	13	6.0
6	26	25	31	32	26	27	22	22	28	12	13	9.3
7	25	25	30	31	25	25	21	21	25	12	12	9.4
8	25	24	26	30	24	27	22	20	24	11	21	11
9	26	25	26	27	22	27	23	19	25	27	20	13
10	26	25	26	25	21	26	22	18	23	21	15	14
11	26	26	25	25	22	25	21	19	21	14	14	12
12	26	32	25	24	26	29	21	19	21	12	15	11
13	26	30	25	24	31	32	21	18	22	10	20	9.9
14	26	27	25	23	29	27	21	18	20	7.6	22	9.9
15	25	26	25	23	27	25	23	18	20	9.0	22	9.8
16	25	25	25	22	25	24	22	18	21	12	19	9.6
17	25	25	24	22	25	24	21	19	25	12	16	9.6
18	26	25	24	21	24	24	20	25	23	15	14	9.5
19	26	26	24	20	23	23	20	23	21	14	19	9.5
20	25	26	25	19	23	23	19	19	19	9.0	22	9.2
21	25	25	25	18	22	23	19	19	18	8.7	23	9.0
22	25	25	27	18	22	23	19	22	18	9.2	23	9.0
23	25	25	26	17	22	24	19	22	18	4.5	21	9.5
24	26	24	25	16	23	25	19	23	18	9.3	19	11
25	29	23	26	17	23	27	19	22	16	8.4	19	9.7
26	27	23	25	16	22	26	20	21	15	22	18	9.9
27	26	23	26	17	22	25	20	20	13	34	17	31
28	25	23	26	17	19	24	19	19	13	23	19	45
29	25	25	26	18	---	23	19	23	14	17	21	35
30	26	25	26	19	---	23	19	23	13	15	23	28
31	26	---	26	20	---	24	---	21	---	15	16	---
TOTAL	806	754	789	708	684	773	628	646	595	426.7	557	408.5
MEAN	26.0	25.1	25.5	22.8	24.4	24.9	20.9	20.8	19.8	13.8	18.0	13.6
MAX	30	32	31	32	31	32	25	28	28	34	23	45
MIN	25	23	23	16	19	19	19	18	13	4.5	12	2.7
CFSM	1.65	1.59	1.61	1.44	1.54	1.58	1.32	1.32	1.25	.87	1.14	.86
IN.	1.90	1.78	1.86	1.67	1.61	1.82	1.48	1.52	1.40	1.00	1.31	.96

CAL YR 1984 TOTAL 15512 MEAN 42.4 MAX 173 MIN 23 CFSM 2.68 IN. 36.52
WTR YR 1985 TOTAL 7775.2 MEAN 21.3 MAX 45 MIN 2.7 CFSM 1.35 IN. 18.31

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 mi².

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT										
16...	0940	E20	49	6.2	15.0	9.8	96	E1.2	<20	<2
JAN										
22...	1200	E24	42	4.6	1.5	13.2	94	E1.0	<20	<2
MAR										
21...	1315	E23	38	4.7	9.0	10.8	93	<1.0	<20	<2
MAY										
23...	1040	E43	35	4.1	19.0	8.4	93	<1.2	<20	14
JUL										
16...	0940	E20	32	4.4	25.0	7.8	95	<1.0	20	540
AUG										
22...	0940	E14	28	4.5	21.0	8.9	100	E.1	<20	350

DATE	HARD-NESS (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									
16...	9	2.5	.77	3.1	.80	4.0	5.2	6.4	<.10
JAN									
22...	7	1.5	.75	3.3	.70	1.0	6.5	5.5	<.10
MAR									
21...	7	1.5	.74	2.5	.70	1.0	6.9	4.9	<.10
MAY									
23...	6	1.4	.63	2.7	.40	1.0	5.0	4.5	<.10
JUL									
16...	6	1.5	.64	2.4	.60	2.0	5.2	3.9	<.10
AUG									
22...	7	1.5	.71	2.2	.90	2.0	4.5	3.9	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
16...	4.7	26	.003	.14	.100	.44	.58	.030	3.3
JAN									
22...	4.7	24	.007	.28	<.050	1.0	1.3	.030	3.4
MAR									
21...	3.0	21	.003	.17	.070	.44	.61	.030	3.2
MAY									
23...	2.3	18	.005	.07	.100	.54	.61	.030	6.4
JUL									
16...	2.9	18	.007	.13	.120	.70	.83	.030	7.9
AUG									
22...	2.8	18	.003	<.05	.090	.46	--	.040	5.4

01409387 MULLICA RIVER AT OUTLET OF ATSION LAKE, AT ATSION, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 16...	0940	<.5	50	<1	<10	<20	1	<10	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)	PHENOLS TOTAL (UG/L)
OCT 16...	1300	2	40	.1	1	<1	20	<1

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 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929.

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. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 109 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft³/s, Feb. 26, 1979, gage height, 6.14 ft; minimum, 7.0 ft³/s, Sept. 6, 7, 8, 1966, gage height, 0.28 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 143 ft³/s, Feb. 13, gage height, 1.81 ft; minimum, 17 ft³/s, Sept. 18, 19, 20, 21, 22, 23, 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	56	67	57	56	72	67	37	61	32	39	24
2	68	55	63	58	81	71	71	35	58	31	37	23
3	66	53	64	59	107	67	71	67	56	30	33	23
4	59	50	67	60	111	63	69	81	54	29	31	23
5	55	63	66	63	74	66	67	87	64	29	28	22
6	53	66	92	69	72	64	64	95	78	29	25	22
7	50	66	108	70	74	60	61	99	66	36	24	21
8	47	66	102	70	71	61	60	88	63	33	39	20
9	45	59	98	68	69	61	57	81	65	45	39	21
10	47	56	96	61	65	59	54	78	62	33	37	22
11	52	61	91	57	65	56	52	84	58	30	34	22
12	57	84	84	59	87	64	49	74	54	26	31	21
13	50	84	79	59	129	70	48	69	52	26	29	21
14	48	74	74	58	134	64	47	61	48	27	28	21
15	44	67	70	57	124	60	47	55	47	28	26	20
16	40	64	68	58	125	56	47	49	47	37	25	20
17	40	60	66	54	118	54	47	48	51	47	24	22
18	41	56	64	55	106	51	45	58	47	53	23	19
19	39	65	62	54	97	49	43	57	46	48	28	17
20	39	63	64	52	90	48	42	63	44	40	27	17
21	43	60	66	52	84	47	41	71	41	35	27	17
22	40	57	71	48	82	46	40	80	40	39	28	17
23	44	57	72	47	81	51	39	87	38	37	28	17
24	49	59	69	47	82	55	39	104	38	33	27	19
25	49	58	68	48	86	65	40	96	37	31	28	18
26	48	58	64	50	85	64	40	68	35	36	29	19
27	49	57	62	49	82	61	41	67	35	42	28	79
28	50	58	61	48	77	59	43	63	34	40	27	110
29	57	72	60	47	---	57	41	68	33	38	26	123
30	56	77	60	47	---	56	38	65	33	37	25	118
31	56	---	59	47	---	54	---	63	---	38	25	---
TOTAL	1536	1881	2257	1728	2514	1831	1510	2198	1485	1095	905	958
MEAN	49.5	62.7	72.8	55.7	89.8	59.1	50.3	70.9	49.5	35.3	29.2	31.9
MAX	68	84	108	70	134	72	71	104	78	53	39	123
MIN	39	50	59	47	56	46	38	35	33	26	23	17

CAL YR 1984 TOTAL 45670 MEAN 125 MAX 893 MIN 35
WTR YR 1985 TOTAL 19898 MEAN 54.5 MAX 134 MIN 17

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 mi², revised.

WATER-QUALITY RECORDS

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT										
16...	1150	12	172	5.2	15.5	2.6	--	E6.6	790	240
FEB										
07...	0940	17	--	6.0	3.0	14.0	104	3.8	<20	9
MAR										
18...	1200	11	136	6.7	6.0	6.7	54	5.2	<20	240
MAY										
23...	1000	12	149	6.0	15.0	.2	--	E3.3	40	540
JUL										
16...	1040	8.8	157	5.9	22.0	2.2	25	3.9	80	1600
AUG										
07...	1300	4.8	159	6.1	20.5	2.9	32	2.4	130	540

DATE	HARD-NESS (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									
16...	21	5.3	2.0	15	4.0	2.0	11	19	.20
FEB									
07...	26	6.8	2.3	17	3.4	1.0	14	22	.30
MAR									
18...	20	5.0	1.9	11	3.0	1.0	13	13	.20
MAY									
23...	17	4.0	1.7	15	3.2	2.0	11	14	.30
JUL									
16...	16	3.6	1.6	17	.50	4.0	11	17	.30
AUG									
07...	16	3.6	1.7	22	4.7	10	11	22	.90

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
16...	6.9	65	.080	2.0	3.70	4.4	6.3	1.29	5.1
FEB									
07...	6.6	73	.035	1.7	3.25	5.0	6.7	.720	4.8
MAR									
18...	6.2	54	.026	1.1	3.25	4.2	5.3	1.14	6.2
MAY									
23...	7.1	57	.038	.78	1.25	5.5	6.3	1.63	7.1
JUL									
16...	7.1	61	.070	1.1	3.30	4.5	5.6	1.65	9.2
AUG									
07...	9.9	82	.078	1.4	2.65	3.6	5.0	1.65	11

01409416 HAMMONTON CREEK AT WESCOATVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	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 16...	1150	<.5	40	<1	<10	60	1	<10	16

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)	PHENOLS TOTAL (UG/L)
OCT 16...	1100	7	40	<.1	4	<1	30	5

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 mi².

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.

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 National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. 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.

AVERAGE DISCHARGE.--58 years, 124 ft³/s, 24.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,310 ft³/s, Aug. 24, 1933; maximum gage height, 8.7 ft, Aug. 20, 1939, from floodmark; minimum daily discharge, 5.7 ft³/s, Oct. 4, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 161 ft³/s, Feb. 15; minimum daily, 38 ft³/s, Sept. 18 to 20, 22 to 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	83	98	83	75	96	86	62	77	53	49	46
2	88	83	95	83	92	97	91	59	74	52	49	45
3	85	80	95	84	104	94	89	83	72	50	48	44
4	81	79	97	86	109	91	86	105	70	49	47	44
5	76	94	97	90	112	95	83	110	78	49	45	43
6	74	100	115	90	113	93	81	106	96	51	45	42
7	74	97	121	90	107	92	78	100	85	55	45	41
8	74	96	125	90	99	91	77	93	81	52	59	41
9	74	94	120	88	92	90	75	86	83	61	63	41
10	72	88	115	84	88	89	74	81	83	53	58	43
11	70	92	112	81	85	85	74	85	76	50	52	43
12	72	108	107	80	94	90	74	84	73	48	48	41
13	72	119	103	79	119	92	72	77	71	49	47	41
14	70	114	100	79	145	92	71	72	69	48	46	40
15	68	115	99	79	161	89	73	68	67	45	45	41
16	66	109	96	77	159	86	71	66	64	51	45	41
17	66	101	93	76	145	83	69	67	68	60	44	42
18	66	98	91	76	129	80	67	78	67	54	44	38
19	70	98	90	74	114	77	66	82	65	49	52	38
20	67	97	92	74	108	77	65	77	61	48	50	38
21	70	94	92	73	104	76	64	72	60	47	48	39
22	74	92	96	72	102	75	64	80	57	52	48	38
23	75	90	96	72	101	78	63	116	56	50	48	38
24	81	88	94	72	104	83	63	128	55	48	47	41
25	81	86	92	73	106	88	66	133	53	46	46	41
26	78	85	91	75	105	84	65	123	52	54	44	42
27	75	83	89	74	104	82	64	106	52	57	44	77
28	74	84	84	72	99	81	62	92	52	56	44	109
29	89	95	83	70	---	79	61	90	54	50	44	103
30	92	99	83	70	---	79	61	88	53	48	44	88
31	87	---	82	70	---	79	---	80	---	48	45	---
TOTAL	2338	2841	3043	2436	3075	2663	2155	2749	2024	1583	1483	1449
MEAN	75.4	94.7	98.2	78.6	110	85.9	71.8	88.7	67.5	51.1	47.8	48.3
MAX	92	119	125	90	161	97	91	133	96	61	63	109
MIN	66	79	82	70	75	75	61	59	52	45	44	38
CFSM	1.11	1.40	1.45	1.16	1.62	1.27	1.06	1.31	.00	.75	.71	.71
IN.	1.28	1.56	1.67	1.34	1.69	1.46	1.18	1.51	1.11	.87	.81	.80

CAL YR 1984 TOTAL 53321 MEAN 146 MAX 754 MIN 63 CFSM 2.15 IN. 29.26
WTR YR 1985 TOTAL 27839 MEAN 76.3 MAX 161 MIN 38 CFSM 1.13 IN. 15.27

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN										
22...	0920	72	38	4.8	1.0	12.0	84	E1.3	<20	<2
MAR										
21...	0950	77	36	4.9	8.0	10.2	--	<.8	<20	<2
MAY										
23...	0920	115	31	5.0	19.0	8.5	--	<.8	<20	14
JUL										
16...	1120	50	25	4.9	24.0	8.1	96	<.4	<20	240
AUG										
07...	1150	45	22	4.9	22.0	9.1	104	E1.2	<20	540

DATE	HARD-NESS (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									
22...	6	1.3	.65	2.5	.60	1.0	5.8	4.5	<.10
MAR									
21...	6	1.3	.71	2.0	.60	1.0	5.9	4.0	<.10
MAY									
23...	7	1.5	.73	2.3	.50	2.0	4.8	4.4	<.10
JUL									
16...	4	.83	.45	2.0	.50	2.0	3.6	3.6	<.10
AUG									
07...	10	2.8	.72	2.7	1.0	2.0	3.4	3.7	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
22...	6.3	22	.005	.19	<.050	.40	.59	.030	1.9
MAR									
21...	5.0	20	<.003	.11	.060	.19	.30	.020	2.4
MAY									
23...	4.2	20	<.003	.05	.080	.31	.36	.040	4.0
JUL									
16...	3.6	16	.006	<.05	.240	.29	--	.030	3.8
AUG									
07...	4.3	20	<.003	<.05	.190	.31	--	.020	2.5

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 of Mullica River, 0.8 mi south of Batsto, and 1.0 mi southeast of Pleasant Mills.

DRAINAGE AREA.--70.8 mi², revised.

TIDE ELEVATION DATA

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 National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--No gage-height or doubtful record: Jan. 21-23, Feb. 8-9, Feb. 11 and Sept. 18-30. 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 (1966-84), -0.67 ft Jan. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.02 ft Oct. 14; minimum recorded, -0.22 ft Apr. 30, May 1, and Aug. 28.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	4.02	3.33	3.38	3.38	3.86	2.97	3.12	3.52	3.37	3.20	3.20	4.01
high tide	Date	14	11	22	19	12	12	5	3	27	1	19	27
Minimum	Elevation	.42	.41	.36	--	.02	-.12	-.22	-.22	-.10	-.19	-.22	--
low tide	Date	9,12	27	30	--	9	21,22	30	1	25	30	28	--
Mean high tide		2.87	2.58	2.39	2.22	2.38	2.24	2.44	2.62	2.57	2.59	2.64	--
Mean water level		1.86	1.59	1.41	1.20	1.34	1.06	1.17	1.45	1.34	1.32	1.39	--
Mean low tide		.79	.66	.57	.31	.41	.05	-.02	.21	.10	.02	.02	--

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 Little Hauken Run Brook, and 1.2 mi southwest of Jenkins.

DRAINAGE AREA.--84.1 mi².

WATER-DISCHARGE RECORDS

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).

GAGE.--Water-stage recorder. Datum of gage is 10.17 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 17 to Mar. 4 and Aug. 11-21. Records poor. Gage-height record, Feb. 17 to Mar. 4 and Aug. 11-21. Some regulation by cranberry bogs and small ponds. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 145 ft³/s, 23.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft³/s, Feb. 26, 1979, gage height, 16.14 ft; minimum, 22 ft³/s, July 24, 1977, gage height 10.16 ft; minimum gage height, 10.14 ft, July 24, 25, 26, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum(*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 28	0215	*262	*12.53	No peak greater than base discharge.			

Minimum discharge, 32 ft³/s, July 24, 25, 26, gage height 10.14 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	74	80	73	84	103	101	64	58	45	47	36
2	131	74	67	75	128	108	99	57	55	44	44	41
3	87	103	67	78	137	105	91	113	54	41	41	46
4	80	104	67	84	123	102	95	166	53	40	39	47
5	92	109	64	91	113	143	92	125	63	38	36	46
6	101	123	97	91	121	107	87	95	97	39	35	42
7	98	116	104	85	117	101	87	84	77	47	34	39
8	89	99	86	84	108	94	89	78	74	43	64	40
9	71	92	72	76	100	92	99	77	86	47	93	41
10	69	87	67	71	95	87	98	74	72	42	65	43
11	66	85	65	76	93	81	102	66	64	40	53	40
12	64	107	64	77	125	91	114	61	61	39	56	36
13	70	100	62	76	196	95	108	73	61	38	52	35
14	108	85	60	75	168	91	107	63	59	37	54	35
15	90	68	58	76	146	102	101	58	58	36	49	38
16	77	65	58	73	130	93	107	56	60	40	46	35
17	62	59	59	72	116	88	106	56	72	44	44	36
18	58	56	59	74	112	95	95	67	69	40	45	40
19	60	68	59	74	109	92	154	62	63	35	53	42
20	60	72	61	72	106	84	138	60	60	34	46	35
21	60	70	62	70	102	73	117	58	58	33	49	34
22	61	73	71	68	99	71	100	68	55	34	52	34
23	72	72	69	68	101	86	139	69	52	34	47	34
24	84	70	66	67	103	96	122	74	49	34	43	50
25	93	68	73	67	101	99	88	70	48	32	42	47
26	114	69	68	69	102	85	71	64	48	47	42	39
27	100	70	66	66	101	96	65	60	47	63	40	147
28	76	69	66	67	98	79	63	57	47	63	39	237
29	91	88	66	67	---	77	66	63	48	51	36	122
30	114	95	66	66	---	81	62	60	46	46	35	72
31	97	---	69	67	---	85	---	64	---	42	35	---
TOTAL	2577	2490	2118	2295	3234	2882	2963	2262	1814	1288	1456	1609
MEAN	83.1	83.0	68.3	74.0	116	93.0	98.8	73.0	60.5	41.5	47.0	53.6
MAX	131	123	104	91	196	143	154	166	97	63	93	237
MIN	58	56	58	66	84	71	62	56	46	32	34	34
CFSM	.99	.99	.81	.88	1.38	1.11	1.17	.87	.72	.49	.56	.64
IN.	1.14	1.10	.94	1.02	1.43	1.27	1.31	1.00	.80	.57	.64	.71

CAL YR 1984 TOTAL 62462 MEAN 171 MAX 990 MIN 56 CFSM 2.03 IN. 27.63
WTR YR 1985 TOTAL 26988 MEAN 73.9 MAX 237 MIN 32 CFSM .88 IN. 11.94

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, 1.6 mi southeast of Washington, 1.8 mi southwest of Jenkins, and 2.2 mi upstream from confluence with Oswego River.

DRAINAGE AREA.--85.9 mi².

WATER-QUALITY RECORDS

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

REMARKS.--Water-stage recorder located at station 01409810.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 27...	1100	70	31	4.9	5.0	2.0	11.4	88	.6	--	--
JAN 28...	1045	67	40	4.8	1.0	2.5	12.6	88	.4	<1	K56
MAR 20...	1015	90	35	4.7	6.5	2.5	11.2	91	.3	<4	220
MAY 17...	1245	56	30	4.7	17.0	5.0	8.3	87	.7	--	--
JUL 18...	1030	39	31	4.7	20.0	5.0	7.8	85	1.8	--	720

DATE	HARD-NESS (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 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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV 27...	4	.74	.40	2.1	.50	1	4.8	4.4	<.10	5.9	20
JAN 28...	4	.84	.43	2.4	.70	1	5.8	4.7	<.10	6.2	22
MAR 20...	4	.81	.49	2.2	.50	1	5.3	4.1	<.10	4.7	19
MAY 17...	3	.65	.32	2.1	.80	1	4.7	3.9	<.10	5.1	19
JUL 18...	4	.66	.46	2.0	.50	<1	4.7	4.0	<.10	5.7	--

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 27...	23	4.3	34	<.10	<.010	.80	.030	.020	<.010	16
JAN 28...	4	.72	92	<.10	.010	<.10	<.010	<.010	<.010	--
MAR 20...	2	.49	43	<.10	.010	.40	.010	--	<.010	--
MAY 17...	9	1.4	73	<.10	<.010	.20	.020	<.010	<.010	--
JUL 18...	6	.63	92	<.10	.040	.30	<.010	<.010	<.010	--

01409815 WEST BRANCH WADING RIVER AT MAXWELL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 27...	1100	130	<1	18	<.5	<1	1	<3	2	340	5
JAN 28...	1045	190	<1	21	<.5	<1	<1	<3	9	400	3
MAY 17...	1245	140	<1	20	<.5	<1	2	<3	8	320	12

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	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)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 27...	<4	15	<.1	<10	2	<1	<1	6	<6	17
JAN 28...	<4	16	<.1	<10	<1	<1	<1	8	<6	26
MAY 17...	<4	11	<.1	<10	4	<1	<1	7	<6	24

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 0.5 mi upstream from confluence with West Branch Wading River.

DRAINAGE AREA.--72.5 mi².

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. 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. Several measurements of water temperature, other than those published, were made during the year.

AVERAGE DISCHARGE.--55 years, 87.4 ft³/s, 16.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,390 ft³/s, Aug. 20, 1939, gage height, 9.54 ft, from high-water mark in gage house, from rating curve extended above 640 ft³/s; no flow part of Oct. 26, 1932, June 10, 1970, and May 29, 30, 1974, while pond was filling.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 127 ft³/s, Sept. 27, gage height, 3.19 ft; minimum, 22 ft³/s, Sept. 22, 23, gage height, 2.76 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	47	61	46	54	54	47	36	37	30	38	29
2	78	46	59	48	78	57	46	35	36	29	35	29
3	79	47	62	52	81	56	45	72	40	29	32	29
4	69	49	58	53	74	55	44	75	37	28	31	29
5	53	61	56	57	66	60	41	58	51	39	33	28
6	48	61	79	59	71	56	40	50	74	27	28	27
7	46	57	75	58	68	53	39	47	58	32	28	27
8	45	51	65	57	63	52	39	44	54	32	51	28
9	46	48	60	51	58	51	38	42	53	36	62	31
10	52	50	60	50	57	49	38	44	48	32	39	29
11	57	64	61	52	54	47	38	40	42	31	37	26
12	50	92	57	52	75	79	36	54	42	29	39	25
13	46	86	55	51	104	73	35	54	40	29	36	25
14	44	80	54	50	97	74	35	88	38	30	36	24
15	41	75	53	50	87	67	43	78	38	28	31	25
16	39	70	52	47	80	55	42	53	42	37	29	25
17	38	69	53	49	74	51	38	46	45	32	27	25
18	38	69	53	50	71	47	34	54	42	31	28	24
19	40	77	53	50	68	45	35	48	40	30	41	24
20	41	80	52	50	66	45	34	42	37	29	35	23
21	41	78	53	46	63	43	36	40	35	29	40	23
22	44	74	57	45	61	41	66	46	33	33	43	23
23	57	67	56	45	62	43	76	45	33	30	39	23
24	54	62	54	45	62	44	46	47	41	30	39	28
25	56	58	53	45	61	51	42	43	37	26	38	25
26	59	55	52	46	62	46	40	40	30	40	37	25
27	61	54	51	45	60	44	38	37	29	50	35	84
28	53	54	50	45	57	43	37	36	30	44	32	100
29	63	66	50	44	---	43	36	42	32	38	31	73
30	58	65	49	43	---	43	36	40	31	35	31	50
31	52	---	47	44	---	42	---	38	---	35	30	---
TOTAL	1609	1912	1750	1525	1934	1609	1240	1514	1225	1010	1111	986
MEAN	51.9	63.7	56.5	49.2	69.1	51.9	41.3	48.8	40.8	32.6	35.8	32.9
MAX	79	92	79	59	104	79	76	88	74	50	62	100
MIN	38	46	47	43	54	41	34	35	29	26	27	23
CFSM	.72	.88	.78	.68	.95	.72	.57	.67	.56	.45	.49	.45
IN.	.83	.98	.90	.78	.99	.83	.64	.78	.63	.52	.57	.51

CAL YR 1984 TOTAL 40468 MEAN 111 MAX 657 MIN 33 CFSM 1.53 IN. 20.76
WTR YR 1985 TOTAL 17425 MEAN 47.7 MAX 104 MIN 23 CFSM .66 IN. 8.94

01410000 OSWEGO RIVER AT HARRISVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-63, 1976 to curent year.

COOPERATION.--Field data and samples for laboratory analyses provided by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 16...	1015	47	34	4.3	2.0	13.0	--	<.8	<20	<2
MAR 18...	0940	49	40	4.7	5.0	11.2	88	<1.2	<20	<2
MAY 28...	1300	36	37	5.0	24.0	8.0	96	E.8	<20	46
JUL 08...	1000	32	--	4.5	24.0	8.7	107	<1.1	<20	170
AUG 07...	0950	28	36	3.8	18.0	8.9	94	<1.1	<20	14

DATE	HARD-NESS (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 16...	4	.82	.43	2.3	.70	<1.0	6.6	4.3	<.10
MAR 18...	4	.84	.52	2.5	.90	<1.0	7.2	4.1	<.10
MAY 28...	--	--	--	--	--	--	--	--	--
JUL 08...	4	.98	.45	2.4	1.1	<1.0	6.5	4.7	<.10
AUG 07...	4	.94	.46	2.4	.90	<1.0	5.9	4.0	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 16...	7.4	--	.004	<.05	.140	.14	--	.070	2.8
MAR 18...	6.4	--	.004	<.05	.050	.20	--	.030	2.8
MAY 28...	--	--	.004	<.05	.160	.30	--	<.020	3.4
JUL 08...	7.6	--	.003	<.05	.120	.37	--	.080	2.5
AUG 07...	7.6	--	<.003	<.05	.070	.28	--	.020	3.1

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 mi².

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 National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 21 to Jan. 8-20. Records good except those for periods of no gage-height record, Dec. 21 to Jan. 5 and Jan. 8-20, which are fair. Some regulation by Lake Absegami. Several measurements of water temperature, other than those published, were made during the year.

AVERAGE DISCHARGE.--7 years, 15.8 ft³/s, 28.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 260 ft³/s July 4, 1978, gage height, 5.87 ft; minimum, 5.9 ft³/s July 21, 1985, gage height, 3.49 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 65 ft³/s and maximum(*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1300	*26	a*4.48	No peak greater than base discharge.			

a Backwater from tide.

Minimum discharge, 5.9 ft³/s, July 21, 22, gage height, 3.49.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	9.7	10	9.2	9.3	11	11	7.8	7.4	6.8	8.8	7.6
2	16	9.6	9.6	9.6	15	13	10	7.8	7.2	7.0	7.9	7.5
3	13	9.4	9.9	10	16	12	9.9	13	7.0	6.8	7.5	7.6
4	11	9.3	10	11	11	12	9.8	14	7.0	6.4	7.3	7.5
5	10	11	9.7	17	10	12	9.9	11	8.3	6.5	7.1	7.3
6	10	11	18	18	12	11	9.7	9.2	12	6.6	6.9	7.1
7	9.8	9.9	19	12	12	11	9.1	8.5	10	6.4	7.0	7.0
8	9.8	9.4	12	9.6	11	11	9.6	8.1	9.4	6.5	11	7.4
9	9.8	9.3	11	9.3	10	11	9.6	8.0	9.7	8.8	12	8.7
10	9.8	9.3	11	9.1	10	11	9.3	7.9	8.6	7.7	8.9	8.8
11	9.7	10	11	9.4	11	10	9.2	7.9	8.0	7.2	8.0	8.2
12	9.6	18	11	9.5	15	12	9.1	7.8	8.0	6.8	7.7	7.7
13	9.7	16	11	9.3	22	13	9.1	7.8	8.3	6.5	7.6	7.4
14	9.8	11	10	9.1	17	11	9.0	7.6	7.9	6.5	7.2	7.3
15	9.6	10	10	9.0	14	11	9.7	7.4	7.5	6.5	7.1	7.2
16	9.4	10	10	8.9	13	10	9.8	7.4	8.8	7.3	6.7	7.1
17	9.3	9.9	10	8.8	13	10	9.1	7.9	11	8.2	6.8	7.1
18	9.4	9.8	10	8.6	13	10	8.7	9.6	9.3	7.4	6.9	7.0
19	9.4	11	10	8.5	13	9.9	8.6	8.9	8.5	6.7	8.8	7.0
20	9.4	12	10	8.4	13	9.9	8.5	7.9	7.7	6.5	10	6.9
21	9.4	11	9.9	8.3	12	9.9	8.5	7.8	7.5	6.3	12	6.9
22	9.4	10	9.9	8.2	12	9.9	8.4	8.8	7.1	8.0	11	6.9
23	10	9.8	9.8	8.1	13	11	8.2	8.6	7.0	7.5	9.0	7.0
24	10	9.8	9.6	8.1	14	11	8.4	9.2	7.0	6.7	7.9	7.9
25	11	9.8	9.5	8.1	12	12	8.6	8.2	6.8	6.5	8.0	7.9
26	10	9.6	9.4	8.1	12	11	8.5	7.6	6.8	13	8.4	7.5
27	9.8	9.6	9.4	8.1	12	10	8.2	7.3	6.7	16	8.0	14
28	9.6	9.7	9.3	8.0	11	9.9	8.1	7.2	6.9	12	7.6	21
29	11	11	9.2	7.9	---	9.8	8.1	8.8	7.1	9.1	7.2	13
30	11	11	9.2	7.9	---	9.8	8.0	8.3	6.9	8.4	7.1	9.7
31	10	---	9.1	7.9	---	10	---	7.5	---	8.1	7.5	---
TOTAL	317.7	316.9	327.5	293.0	358.3	336.1	271.7	264.8	241.4	240.7	254.9	251.2
MEAN	10.2	10.6	10.6	9.45	12.8	10.8	9.06	8.54	8.05	7.76	8.22	8.37
MAX	16	18	19	18	22	13	11	14	12	16	12	21
MIN	9.3	9.3	9.1	7.9	9.3	9.8	8.0	7.2	6.7	6.3	6.7	6.9
CFSM	1.26	1.31	1.31	1.17	1.58	1.33	1.12	1.05	.99	.96	1.01	1.03
IN.	1.46	1.45	1.50	1.34	1.64	1.54	1.25	1.21	1.11	1.10	1.17	1.15

CAL YR 1984 TOTAL 7455.7 MEAN 20.4 MAX 84 MIN 9.1 CFSM 2.52 IN. 34.20
WTR YR 1985 TOTAL 3474.2 MEAN 9.52 MAX 22 MIN 6.3 CFSM 1.17 IN. 15.94

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, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN										
16...	1110	8.9	36	4.0	2.0	11.0	--	<.4	<20	<2
MAR										
18...	1050	10	36	4.6	5.0	9.5	75	<1.0	<20	<2
MAY										
28...	1130	8.1	31	5.9	16.0	6.8	70	E2.8	<20	240
JUL										
08...	1100	6.7	--	4.7	17.0	7.8	--	<.3	<20	350
AUG										
07...	1040	7.4	30	4.0	16.5	7.6	77	<.7	<20	14

DATE	HARD-NESS (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									
16...	4	.60	.54	2.6	.50	1.0	4.7	4.8	<.10
MAR									
18...	4	.57	.56	2.9	.70	1.0	4.8	5.1	<.10
MAY									
28...	3	.66	.40	2.0	.60	1.0	3.7	4.9	<.10
JUL									
08...	3	.47	.42	2.8	.50	1.0	3.6	5.1	<.10
AUG									
07...	3	.49	.49	2.6	.60	1.0	3.7	5.1	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
16...	8.5	23	.003	<.05	.080	.31	--	.030	.90
MAR									
18...	7.8	23	.004	<.05	.100	.13	--	<.020	2.5
MAY									
28...	9.3	22	<.003	<.05	.170	.24	--	<.020	2.6
JUL									
08...	9.2	23	.003	<.05	E.180	.15	--	<.020	3.0
AUG									
07...	8.9	22	<.003	<.05	.070	.35	--	<.020	2.3

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 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 24...	1130	5.6	142	6.6	2.0	10.8	78	3.5	11	>2400
MAR 27...	1000	7.3	110	6.4	7.5	9.4	78	3.3	8	540
JUN 17...	0930	6.9	150	6.6	17.0	6.0	63	3.8	1100	920
JUL 11...	0830	4.0	136	6.3	18.5	4.4	47	3.3	330	490
AUG 29...	1015	3.6	155	6.5	18.0	4.5	47	2.7	200	800

DATE	HARD-NESS (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 24...	21	5.4	1.9	13	2.6	7.0	11	17	<.10
MAR 27...	18	4.5	1.7	9.0	2.2	5.0	11	11	<.10
JUN 17...	23	6.0	2.0	15	4.0	10	15	17	<.10
JUL 11...	25	6.7	2.1	12	4.3	12	18	16	.20
AUG 29...	27	7.0	2.2	15	4.0	16	11	17	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 24...	7.4	62	.011	1.4	1.38	2.3	3.7	.590	3.7
MAR 27...	5.0	47	.029	1.5	.540	1.5	2.9	.530	6.4
JUN 17...	5.9	71	.075	2.6	.890	1.6	4.2	1.01	8.6
JUL 11...	5.5	72	.063	2.5	.340	.92	3.4	.970	5.8
AUG 29...	5.1	71	.041	3.5	.110	.62	4.1	1.02	4.3

01410784 GREAT EGG HARBOR RIVER NEAR SICKLERVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JUN 17...	0930	<.5	90	<1	<10	70	<1	<10	4

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN 17...	730	2	20	.2	4	<1	80	1

01410820 GREAT EGG HARBOR RIVER NEAR BLUE ANCHOR, NJ

LOCATION.--39°40'09", long 74°54'49", Camden County, Hydrologic Unit 02040302, downstream side of bridge on Broad Lane Road, 1.9 mi southwest of Blue Anchor, and 2.1 mi downstream from confluence of Fourmile Branch.

DRAINAGE AREA.--37.3 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
JAN 24...	1015	37	96	6.5	2.5	11.9	87	1.6	2	25
MAR 27...	0900	43	87	6.4	7.5	9.9	82	1.8	5	48
JUN 17...	0800	37	88	6.7	16.5	6.9	71	1.3	1300	>24000
JUL 11...	0800	45	88	5.9	19.0	6.0	65	2.1	350	1600
AUG 29...	0945	22	75	6.7	18.5	7.1	75	.7	49	920

DATE	HARD-NESS (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 24...	--	--	--	--	--	--	--	--	--
MAR 27...	16	3.5	1.7	7.6	1.6	6.0	9.5	10	<.10
JUN 17...	16	3.5	1.8	8.3	2.1	9.0	9.3	10	<.10
JUL 11...	17	3.8	1.8	7.9	2.5	5.0	13	11	.20
AUG 29...	15	3.4	1.6	6.3	1.7	9.0	6.8	7.9	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 24...	--	--	.012	1.4	.510	1.7	3.1	.290	2.7
MAR 27...	5.2	43	.017	1.3	.300	.85	2.1	.290	5.6
JUN 17...	5.7	46	.021	1.6	.130	.56	2.1	.440	3.3
JUL 11...	6.2	49	.010	.93	.260	.86	1.8	.470	12
AUG 29...	4.8	38	.003	1.2	.080	.32	1.6	.300	2.9

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 mi².

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 National Geodetic Vertical Datum of 1929. 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.--Estimated daily discharges: Oct. 1, 2, Dec. 3, Mar. 29 to Apr. 11. Records good except those for periods of no gage-height record, Oct. 1, 2, Dec. 3, Mar. 29 to Apr. 11, which are fair. Several measurements of water temperature were made during the year. Recording rain-gage and gage-height telemeter at station.

AVERAGE DISCHARGE.--60 years, 86.4 ft³/s, 20.55 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft³/s, Sept. 3, 1940, gage height, 9.09 ft; minimum, 15 ft³/s, Sept. 6, 1957, Aug. 28-30, 1966; minimum gage height, 3.42 ft, Aug. 28-30, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 259 ft³/s, Sept. 29, gage height, 5.02 ft; minimum, 29 ft³/s, Sept. 20, 21, 22, 23, gage height, 3.52 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	66	66	60	54	64	67	44	77	42	63	37
2	75	62	65	61	70	64	66	43	70	40	60	37
3	81	56	71	61	85	62	67	71	65	38	52	37
4	86	52	68	63	92	61	65	98	61	38	48	36
5	79	56	69	66	90	63	64	115	64	37	45	33
6	68	64	79	68	82	65	63	121	76	37	43	32
7	61	69	88	69	74	62	61	106	71	40	42	30
8	57	70	99	68	69	62	60	81	67	44	57	30
9	55	64	102	64	63	62	58	69	70	80	69	31
10	54	58	94	61	62	62	56	64	68	86	62	34
11	52	58	82	60	61	61	55	61	63	87	55	44
12	51	66	75	59	67	63	54	59	59	67	50	44
13	50	66	71	59	92	68	54	57	58	58	45	38
14	50	64	69	59	113	68	52	55	57	54	43	34
15	49	59	68	58	136	65	52	52	55	51	41	33
16	47	56	67	57	126	61	52	51	54	52	39	32
17	47	53	66	55	106	60	51	55	58	53	38	31
18	46	52	65	55	89	59	50	84	61	51	37	30
19	46	55	65	55	79	56	50	94	58	48	39	30
20	46	59	65	55	75	55	50	98	55	45	39	30
21	46	61	65	52	72	55	50	93	52	43	39	29
22	42	62	68	52	70	54	49	103	50	46	44	29
23	43	60	70	51	70	56	47	105	48	49	43	29
24	52	59	68	51	72	61	46	104	47	45	39	31
25	55	58	67	51	72	66	47	98	45	42	40	32
26	54	58	65	52	71	67	48	88	43	45	46	33
27	53	56	63	52	69	64	47	75	42	62	48	87
28	50	55	62	51	66	61	46	68	42	65	43	120
29	54	60	62	51	---	59	46	75	42	59	39	223
30	57	65	62	50	---	58	44	83	42	53	38	248
31	64	---	61	50	---	58	---	82	---	51	38	---
TOTAL	1738	1799	2207	1776	2247	1902	1617	2452	1720	1608	1424	1544
MEAN	56.1	60.0	71.2	57.3	80.3	61.4	53.9	79.1	57.3	51.9	45.9	51.5
MAX	86	70	102	69	136	68	67	121	77	87	69	248
MIN	42	52	61	50	54	54	44	43	42	37	37	29
CFSM	.98	1.05	1.25	1.00	1.41	1.08	.94	1.39	1.00	.91	.80	.90
IN.	1.13	1.17	1.44	1.16	1.46	1.24	1.05	1.60	1.12	1.05	.93	1.01

CAL YR 1984 TOTAL 37559 MEAN 103 MAX 445 MIN 42 CFSM 1.80 IN. 24.47
WTR YR 1985 TOTAL 22034 MEAN 60.4 MAX 248 MIN 29 CFSM 1.06 IN. 14.35

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 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUC-TANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (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)	STREP-TOCOCCI FECAL (MPN)
OCT 10...	0900	E165	60	6.0	14.0	9.4	90	.4	2	<2
JAN 24...	0900	E155	68	6.2	1.0	13.7	96	.9	2	8
MAR 27...	0800	E197	58	5.8	7.5	11.0	--	.8	5	140
JUN 13...	0800	E175	54	5.8	19.0	7.8	85	1.0	23	>2400
JUL 15...	0800	E162	56	6.1	22.5	7.5	87	1.2	22	>2400
AUG 29...	0900	E137	54	6.5	20.5	7.5	83	.9	2	540

DATE	HARD-NESS (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 10...	11	2.3	1.2	4.8	1.2	3.0	6.6	8.7	<.10
JAN 24...	10	2.2	1.2	4.8	1.2	3.0	5.9	9.7	<.10
MAR 27...	10	2.2	1.2	4.6	1.1	3.0	6.1	8.0	<.10
JUN 13...	10	2.0	1.1	4.9	.90	3.0	6.4	7.7	<.10
JUL 15...	9	1.9	1.0	4.6	1.4	3.0	6.9	7.6	<.10
AUG 29...	10	2.0	1.1	4.7	1.1	4.0	5.6	7.6	<.10

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, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 10...	5.9	32	.004	.71	.080	.32	1.0	.060	4.0
JAN 24...	7.3	34	.005	.81	.240	.53	1.3	.080	3.3
MAR 27...	5.3	30	.005	.68	.090	.47	1.2	.080	4.3
JUN 13...	5.4	30	.005	.46	.130	.48	.94	.110	4.2
JUL 15...	5.3	30	.005	.58	.090	.58	1.2	.100	3.9
AUG 29...	5.6	30	<.003	.55	.080	.42	.97	.110	3.7

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JUN 13...	0800	<.5	100	<1	<10	30	<1	10	22

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN 13...	1300	5	20	.3	11	<1	90	5

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1969 to current year.

REVISED RECORDS.--WDR NJ-78-1: 1975(M), 1976(M).

GAGE.--Water-stage recorder, wooden control, and downstream tidal crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 22 to Dec. 6 and Jan. 1-22. Records good above 25 ft³/s and fair below, except those for period of no gage-height record, Nov. 22 to Dec. 6 and Jan. 1-22, which are poor. Occasional regulation by ponds above station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 45.1 ft³/s, 19.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 510 ft³/s, May 31, 1984, elevation, 6.17 ft; maximum elevation, 7.01 ft; minimum daily discharge, 1.3 ft³/s, Sept. 3, 13, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 134 ft³/s, Sept. 28, elevation, 4.79 ft; minimum daily, 10 ft³/s, Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	22	31	23	30	27	29	12	30	15	67	16
2	33	21	27	24	49	37	29	14	26	15	79	15
3	33	20	24	25	56	36	28	40	24	14	51	15
4	28	20	25	26	44	32	26	53	22	14	30	14
5	26	26	23	27	36	35	25	39	26	14	23	14
6	24	28	39	26	37	37	25	30	31	13	20	14
7	22	25	45	25	35	33	23	26	27	13	19	13
8	21	23	38	24	31	32	24	23	28	16	30	13
9	23	22	32	23	29	32	23	20	31	29	42	14
10	22	21	30	23	28	30	23	19	28	26	41	16
11	19	22	29	24	28	29	22	17	25	22	32	15
12	18	26	27	25	41	37	22	16	22	19	26	14
13	19	25	27	24	69	41	22	15	26	17	22	14
14	28	23	26	25	66	35	21	12	22	15	19	13
15	19	22	25	25	49	31	25	13	19	14	18	13
16	19	21	25	24	41	29	26	12	19	17	16	13
17	19	20	25	24	36	29	23	13	20	17	17	13
18	19	20	24	24	33	28	21	40	20	16	17	13
19	19	28	24	23	32	28	20	36	19	15	23	12
20	19	32	24	23	32	27	19	26	18	14	23	12
21	18	28	24	23	31	27	18	22	17	13	22	10
22	18	30	26	22	30	26	17	24	16	12	23	11
23	19	28	26	22	31	30	16	26	16	12	22	12
24	20	26	24	22	31	31	17	45	15	11	20	15
25	21	25	24	22	30	34	18	40	15	11	19	14
26	21	24	23	23	30	31	19	30	15	25	19	17
27	21	23	23	23	29	28	17	24	15	30	19	71
28	20	23	23	23	28	27	15	21	16	31	17	126
29	23	31	23	22	---	26	14	44	16	24	16	100
30	24	37	23	22	---	26	13	44	15	20	15	68
31	23	---	23	22	---	27	---	37	---	22	16	---
TOTAL	686	742	832	733	1042	958	640	833	639	546	823	720
MEAN	22.1	24.7	26.8	23.6	37.2	30.9	21.3	26.9	21.3	17.6	26.5	24.0
MAX	33	37	45	27	69	41	29	53	31	31	79	126
MIN	18	20	23	22	28	26	13	12	15	11	15	10

CAL YR 1984 TOTAL 21138 MEAN 57.8 MAX 464 MIN 18
WTR YR 1985 TOTAL 9194 MEAN 25.2 MAX 126 MIN 10

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.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Hackensack River basin					
*01377475	Musquapsink Brook near Westwood, NJ	Lat 40°59'41", long 74°03'42", Bergen County, at bridge on Pascack Road in Washington Borough, 1.5 mi west of Westwood, and 5.3 mi above mouth. Datum of gage before 1973 was 69.67 ft, datum since is 68.07 ft. above National Geodetic Vertical Datum of 1929.	2.12	1965-85	3-21-83 9-27-85	b0.84 b0.99	c385 420
01377490	Musquapsink Brook at Westwood, NJ	Lat 40°59'11", long 74°02'03", Bergen County, at footbridge at Bogert Pond, 8 ft upstream from dam near intersection of Mill Street and First Avenue in Westwood. Datum of gage is 47.67 ft above National Geodetic Vertical Datum of 1929.	6.53	1966-85	9-27-85	1.56	275
*01378385	Tenakill Brook at Closter, NJ	Lat 40°58'29", long 73°58'06, Bergen County, at bridge on High Street in Closter, 0.7 mi upstream from mouth. Datum of gage is 23.85 ft above National Geodetic Vertical Datum of 1929.	8.56	1965-85	9-27-85	b1.98	220
*01378590	Metzler Brook at Englewood, NJ	Lat 40°54'29", long 73°59'13", Bergen County, at bridge on Lantana Avenue in Englewood, and 1.6 mi upstream from mouth. Datum of gage is 43.10 ft above National Geodetic Vertical Datum of 1929.	1.54	1965-85	9-27-85	b2.03	162
*01378615	Wolf Creek at Ridgefield, NJ	Lat 40°49'45", Long 74°00'14", Bergen County, at bridge on Clark Avenue in Ridgefield and 0.9 mi upstream from mouth. Datum of gage is 12.1 ft above National Geodetic Vertical Datum of 1929.	1.18	1965-85	9-27-85	b5.63	495
		Passaic River basin					
01378690	Passaic River near Bernardsville, NJ	Lat 40°44'03", long 74°32'26", Somerset County, 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 National Geodetic Vertical Datum of 1929.	8.83	1968-76‡, 1977-85	9-27-85	b12.76	408

ANNUAL MAXIMUM DISCHARGE AT CREST-STATE PARTIAL-RECORD STATIONS--CONTINUED

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Passaic River basin					
01379845	Rockaway River at Warren Street, at Dover, NJ	Lat 40°53'08", long 74°33'36", Morris County, 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 National Geodetic Vertical Datum of 1929	52.1	1981-85	5-12-81 9-27-85	5.46 5.25	c1,200 1,070
01387880	Pond Brook at Oakland, NJ	Lat 41°01'36", long 74°14'04", Bergen County, 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 National Geodetic Vertical Datum of 1929.	6.76	1968-71, 1976-85	9-27-85	2.34	410
01389030	Preakness (Singac) Brook near Preakness, NJ	Lat 40°56'55", long 74°13'25", Passaic County, 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 National Geodetic Vertical Datum of 1929.	3.24	1979-85	9-06-79 4-28-80 7-21-81 9-27-85	b5.07 b4.3 b5.82 b4.09	c950 c650 c1,280 580
01389534	Peckman River at Ozone Avenue at Verona, NJ	Lat 40°50'42", long 74°14'09", Passaic County, 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 National Geodetic Vertical Datum of 1929.	4.45	1945, 1979-85	7-23-45 9-06-79 9-27-85	- b5.09 b4.05	c3,800 c1,940 1,080
01389765	Molly Ann Brook at North Haledon, NJ	Lat 40°57'11", long 74°11'07", Passaic County, at bridge on Overlook Avenue in North Haledon, 1.5 mi west of Hawthorne and 0.5 mi upstream from Oldham Pond Dam. Datum of gage is 209.68 ft. above National Geodetic Vertical Datum of 1929.	3.89	1945, 1979-85	7-23-45 9-06-79 4-28-80 7-21-81 6-11-82 3-28-83 5-29-84 9-27-85	- 8.66 7.62 6.11 7.19 6.07 8.87 6.14	c3,100 c1,730 c1,200 c580 c830 c840 c1,580 460
01389900	Fleischer Brook at Market Street, Elmwood Park, NJ	Lat 40°53'57", long 74°06'54", Bergen County, 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 National Geodetic Vertical Datum of 1929.	1.37	1967-85	9-27-85	3.24	173
*01390450	Saddle River at Upper Saddle River, NJ	Lat 41°03'32", long 74°05'44", Bergen County, 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 National Geodetic Vertical Datum of 1929.	10.9	1966-85	9-27-85	b4.34	1,500
01390810	Hohokus Brook at Allendale, NJ	Lat 41°01'37", long 74°08'44", Bergen County, at bridge on Brookside Avenue in Allendale, and 0.2 mi downstream from Valentine Brook. Datum of gage is 277.46 ft above National Geodetic Vertical Datum of 1929.	9.11	1969-85	9-27-85	5.44	405

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STATE PARTIAL-RECORD STATIONS--CONTINUED

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Passaic River basin--Continued					
01390900	Ramsey Brook at Allendale, NJ	Lat 41°01'44", long 74°08'07", Bergen County, at bridge on Brookside Avenue in Allendale and 0.6 mi upstream from Hohokus Brook. Datum of gage is 270.79 ft above National Geodetic Vertical Datum of 1929.	2.55	1975-85	9-27-85	b2.92	260
01392500	Second River at Belleville, NJ	Lat 40°47'17", long 74°10'19", Essex County, 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 National Geodetic Vertical Datum of 1929.	11.6	1937-64‡, 1963-85	9-27-85	6.82	4,000
		Raritan River basin					
01397500	Walnut Brook near Flemington, NJ	Lat 40°30'55", long 74°52'52", Hunterdon County, on right bank 1.2 mi northwest of Flemington, and 2.3 mi upstream from mouth. Datum of gage is 267.33 ft above National Geodetic Vertical Datum of 1929.	2.24	1936-61‡, 1963-85	9-27-85	2.67	334
01399700	Rockaway Creek at Whitehouse, NJ	Lat 40°37'55", long 74°44'11", Hunterdon County, on right bank at bridge on Lamington Road, 1.4 mi northeast of Whitehouse, and 1.8 mi upstream from mouth. Datum of gawge is 99.64 ft. National Geodetic Vertical Datum of 1929.	37.1	1959-62, 1964-65, 1973, 1977-1984‡ 1985	9-27-85	6.71	1,970
01399830	North Branch Raritan River at North Branch, NJ	Lat 40°36'00", long 74°40'27", Somerset County, 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 National Geodetic Vertical Datum of 1929.	174	1977-81‡, 1982-85	9-27-85	12.06	7,150
01400630	Millstone River at Southfield Road near Grovers Mill, NJ	Lat 40°18'12", long 74°34'33", Mercer County, 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 National Geodetic Vertical Datum of 1929.	41.0	1971,1975 1979-85	9-27-85	4.96	495
01400730	Millstone River at Plainsboro, NJ	Lat 40°19'27", long 74°36'51", Mercer County, 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 above National Geodetic Vertical Datum of 1929.	65.8	1965-75‡, 1976-85	2-13-85	5.00	1,150
01400775	Bear Brook at Route 535 near Locust Corner, NJ	Lat 40°16'41", long 74°34'39" Mercer County, 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 National Geodetic Vertical Datum of 1929.	6.69	1971,1975 1979-85	9-27-85	b5.74	442

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STATE PARTIAL-RECORD STATIONS--CONTINUED

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Raritan River basin--Continued					
01400822	Little Bear Brook at Penns Neck, NJ	Lat 40°19'21", long 74°37'37", Mercer County, 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 National Geodetic Vertical Datum of 1929.	1.84	1971,1975, 1979-85	2-13-85	2.30	58
01400900	Stony Brook at Glenmoore, NJ	Lat 40°21'55", long 74°47'14", Mercer County, 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 National Geodetic Vertical Datum of 1929.	17.0	1957-85	2-27-85	b7.38	2,875
*01400930	Baldwin Creek at Pennington, NJ	Lat 40°20'18", long 74°47'50", Mercer County, 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 National Geodetic Vertical Datum of 1929.	1.99	1960-85	9-27-85	5.44	303
01400950	Hart Brook near Pennington, NJ	Lat 40°19'17", long 74°45'38", Mercer County, 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 National Geodetic Vertical Datum of 1929.	0.57	1968-85	9-27-85	2.40	49.6
01401160	Duck Pond Run near Princeton Junction, NJ	Lat 40°17"47", long 74°38'47", Mercer County, 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 National Geodetic Vertical Datum of 1929.	1.35	1980-85	9-27-85	4.72	132
01401200	Duck Pond Run at Clarksville, NJ	Lat 40°18'24", long 74°40'06", Mercer County, at bridge on U.S. Route 1, 0.5 mi upstream and 0.9 mi northeast of Clarksville. Datum of gage is 54.14 ft above National Geodetic Vertical Datum of 1929. Note: Previously published discharges at this site may be too high due to variable backwater from the Delaware and Raritan Canal.	5.21	1965-85	5-03-85	4.29	†
01401301	Millstone River at Carnegie Lake at Princeton, NJ	Lat 40°22'11", long 74°37'15", Middlesex County, at right end of Carnegie Lake dam, 2.5 mi northeast of Princeton. Datum of gage is 50.00 ft above National Geodetic Vertical Datum of 1929.	159	1926-74‡, 1977-85	9-29-85	4.08	2,620
*01401520	Beden Brook near Hopewell, NJ	Lat 40°23'02", long 74°44'28", Mercer County, at bridge on Aunt Molly Road, 0.8 mi upstream from Province Line Road, 1.1 mi southeast of Hopewell, and 2.6 mi southwest of Blawenburg. Datum of gage is 116.43 ft above National Geodetic Vertical Datum of 1929.	6.67	1967-85	2-13-85	5.81	990

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STATE PARTIAL-RECORD STATIONS--CONTINUED

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Raritan River basin--Continued					
01401595	Rock Brook near Blawenburg, NJ	Lat 40°25'47", long 74°41'05", Somerset County, 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 National Geodetic Vertical Datum of 1929.	9.03	1967-85	9-27-85	b5.02	1,300
01401600	Beden Brook near Rocky Hill, NJ	Lat 40°24'52", long 74°39'02", Somerset County, 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 National Geodetic Vertical Datum of 1929.	27.6	1967-85	9-27-85	b5.02	1,300
01401870	Six Mile Run near Middlebush, NJ	Lat 40°28'12", long 74°32'42", Somerset County, 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 National Geodetic Vertical Datum of 1929.	10.7	1966-85	2-12-85	7.01	1,300
01403395	Blue Brook at Seeleys Pond Dam near Berkeley Heights, NJ	Lat 40°40'02", long 74°24'13", Union County, 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 National Geodetic Vertical Datum of 1929.	3.59	1973, 1981-85	9-27-85	4.60	180
01403500	Green Brook at Plainfield, NJ	Lat 40°36'53", Long 74°25'55", Union County, 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 National Geodetic Vertical Datum of 1929.	9.75	1938-84‡ 1985	7-27-85	4.42	1,260
		Navesink River basin					
01407290	Big Brook at Marlboro, NJ	Lat 40°19'10", long 74°12'52", Monmouth County, downstream side of bridge on Hillsdale Road, 1.7 mi east of Marlboro, and 3.0 mi northwest of Colts Neck.	6.42	1980-85	9-27-85	b6.76	810
		Manasquan River basin					
*01407830	Manasquan River near Georgia, NJ	Lat 40°12'36", long 74°16'41", Monmouth County, at culvert on Jacksons Mill Road near Georgia, and 0.5 mi upstream from Debois Creek. Datum of gage is 70.47 ft above National Geodetic Vertical Datum of 1929.	10.6	1969-85	2-13-85	11.60	600
*01408015	Mingamahone Brook at Farmingdale, NJ	Lat 40°11'38", long 74°09'42", Monmouth County, at bridge on Belmar Road in Farmingdale, and 3.0 mi upstream from mouth. Datum of gage is 48.64 ft above National Geodetic Vertical Datum of 1929.	6.20	1969-85	9-27-85	3.82	85

ANNUAL MAXIMUM DISCHARGE AT CREST-STATE PARTIAL-RECORD STATIONS--CONTINUED

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		Manasquan River basin--Continued					
*01408030	Manasquan River at Allenwood, NJ	Lat 40°08'35", long 74°07'03", Monmouth County, at bridge on Hospital Road at Allenwood, and 1.5 mi downstream from Mill Run. Datum of gage is 3.56 ft above National Geodetic Vertical Datum of 1929.	63.9	1969-85	9-27-85	b7.80	1,525
		Mullica River basin					
*01409375	Mullica River near Atco, NJ	Lat 39°47'08", long 74°51'38", Burlington County, 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. Datum of gage is 102.90 ft above National Geodetic Vertical Datum of 1929.	3.22	1975-85	9-27-85	b5.78	58.0
*01409403	Wildcat Branch at Chesilhurst, NJ	Lat 39°44'04", long 74°51'33", Camden County, at culvert on Old White Horse Pike, 0.5 mi east of Chesilhurst, and 0.9 mi north of Waterford Works. Datum of gage is 98.98 ft National Geodetic Vertical Datum of 1929.	1.03	1975-85	2-15-85	4.89	9.4
*01409409	Blue Anchor Brook near Blue Anchor, NJ	Lat 39°41'17", long 74°51'00", Camden County, at bridge on Spring Garden Road, 4,000 ft upstream of Route 30 highway bridge, 1.8 mi east of Blue Anchor and 2.2 mi upstream from mouth. Datum of gage is 84.94 ft above National Geodetic Vertical Datum of 1929.	3.01	1975-85	9-27-85	4.05	14.6
		Great Egg Harbor River basin					
01410810	Fourmile Branch at New Brooklyn, NJ	Lat 39°41'47", long 74°56'25", Camden County, on left bank 70 ft upstream from bridge on Malaga Road, 0.3 mi northeast of New Brooklyn, 0.3 mi upstream from mouth. Datum of gage is 101.04 ft above National Geodetic Vertical Datum of 1929.	7.74	1972-79‡, 1980-85	9-28-85	4.46	97.0

* Also a low-flow partial-record station.
** Also a tidal crest-stage station.
† Discharge not determined.
‡ Operated as a continuous-record gaging station.
b Downstream side of bridge.
c Not previously published.

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 ground-water 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 1985

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Hudson River basin				
01367620	Wallkill River at outflow of Lake Mohawk at Sparta, NJ	Lat 41°01'59", long 74°38'36", revised, Sussex County, Hydrologic Unit 02020007, at bridge on West Shore Trail, at Sparta, 200 ft downstream from outflow of Lake Mohawk, and 1.2 mi southwest of Sparta Station.	4.38	1979-85	4-27-85 8-12-85 9-17-85	0.04 4.6 0.46
01367700	Wallkill River at Franklin, NJ	Lat 40°06'43", long 74°35'21", Sussex County, Hydrologic Unit 02020007, at bridge on Franklin Avenue, 100 ft downstream of Franklin Pond and 0.5 mi northwest of State Route 23.	29.4	1959-64, 1982-83, 1985	11-21-84	11
01368950	Black Creek near Vernon, NJ	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.	17.3	1980-85	11-21-84 11-28-84 4-27-95 8-12-85 9-17-85	3.5 4.6 11 9.9 6.0
		Passaic River basin				
01379750	Rockaway River at Dover, NJ	Lat 40°54'12, long 74°34'36", Morris County, Hydrologic Unit 2030103, 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, 1983-85	10-16-84 9-19-85	11 12
01380300	Stony Brook near Rockaway Valley, NJ	Lat 40°56'25", long 74°25'39", Morris County, Hydrologic Unit 02030103, at bridge on Rockaway Valley Road, 0.2 mi downstream of unnamed tributary and 1.7 mi west of Taylortown.	8.43	1963-67, 1985	10-17-84 9-19-85	0 0.65
*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, 1983-85	11-09-84	31
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, 1979-81, 1983-85	11-09-84	69
01387670	Ramapo River near Darlington, NJ	Lat 41°03'57", long 74°11'52", Bergen County, Hydrologic Unit 02030103, at bridge on Bear Swamp Road (Cannon Ball Road, 300 ft upstream of Bear Swamp Brook and 1.6 mi southwest of Darlington.	126	1963-66, 1982-83	a10-13-82	24

Discharge measurements made at low-flow partial-record stations during water year 1985--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Rahway River basin				
01396030	South Branch Rahway River at Colonia, NJ	Lat 40°34'57", long 74°18'04", Middlesex County, Hydrologic Unit 02030104, at bridge on Dover Road in Colonia, 0.7 mi northeast of Iselin, and 3.5 mi northeast of Metuchen.	9.41	1979-85	4-27-85 8-12-85 9-17-85	1.8 2.2 1.1
		Raritan River basin				
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 railroad bridge.	47.7	1963-67, 1973, 1975, 1982-83, 1985	11-06-84	51
01397290	Assiscong Creek at Bartles Corners, NJ	Lat 40°32'23", long 74°50'52" Hunterdon County, Hydrologic Unit 02030105, at bridge on River Road, 0.3 mi upstream from mouth, 1.5 mi north of Flemington, and 2.8 mi west of Three Bridges.	2.98	1981-85	4-27-85 8-12-85 9-17-85	0.66 0.20 0.04
01397800	Neshanic River near Flemington, NJ	Lat 40°28'46", long 74°51'29" Hunterdon County, Hydrologic Unit 02030105, at bridge on Kuhl Road, 200 ft downstream from confluence of First Neshanic River and Second Neshanic River, 1.4 mi south of Flemington, and 2.1 mi west of Reaville.	11.4	1981-85	4-27-85 8-12-85 9-17-85	1.1 0.14 0
01397900	Third Neshanic River near Ringoes, NJ	Lat 40°27'31", long 74°52'05", Hunterdon County, Hydrologic Unit 02030105, at bridge on Eitts Road, 2.0 mi upstream from mouth, 2.1 mi north of Ringoes, and 3.0 mi southwest of Reaville.	9.24	1981-85	4-27-85 8-12-85 9-17-85	1.3 1.2 0.40
01398052	Back Brook near Reaville, NJ	Lat 40°27'32", long 74°49'24", Hunterdon County, Hydrologic Unit 02030105, at bridge on Manners Road, 0.6 mi upstream from mouth, 0.8 mi northwest of Wertsville, and 1.5 mi southeast of Reaville.	11.4	1981-85	4-27-85 8-12-85 9-17-85	1.0 1.7 0.14
01398075	Pleasant Run at Centerville, NJ	Lat 40°32'17", long 74°45'17", Hunterdon County, Hydrologic Unit 02030105, at bridge on Old York Road in Centerville, 2.4 mi northwest of Neshanic Station, 2.5 mi upstream from mouth, and 2.7 mi northwest of Three Bridges.	8.11	1982-85	4-27-85 8-12-85 9-17-85	0.90 1.1 0.10
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, 1980-85	11-06-84	8.71
*01400900	Stony Brook at Glenmore, NJ	Lat 40°21'55", long 74°47'14", Mercer County, Hydrologic Unit 02030105, at bridge on Pennington-Hopewell Road (State Route 518 Spur), at entrance to Hopewell Valley Country Club, 0.3 mi downstream of unnamed tributary and 2.6 mi north of Pennington.	17.0	1957-62, 1964, 1969-71, 1985	11-15-84 7-19-85	1.1 0.51
*01400930	Baldwin Creek at Pennington, NJ	Lat 40°20'18", long 74°47'50", Mercer County, Hydrologic Unit 02030105 at bridge on U.S. Route 31, 450 ft downstream of unnamed tributary, 0.4 mi north of Pleasant Valley Road and 0.8 mi from Pennington.	1.99	1957-59, 1963, 1965-69, 1972, 1985	11-15-84 7-19-85	0.32 0.21

Discharge measurements made at low-flow partial-record stations during water year 1985--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Raritan River basin--Continued				
*01400947	Stony Brook at Pennington, NJ	Lat 40°19'50", long 74°46'05", Mercer County, Hydrologic Unit 02030105, 25 ft upstream from dam on Stony Brook at Old Mill Road, 1.3 mi east of Pennington and 1.4 mi downstream from Baldwin Creek.	26.7	1965-69, 1971-72, 1985	11-15-84 7-19-85	1.93 1.18
01400970	Honey Branch near Rosedale, NJ	Lat 40°20'26", long 74°44'39", Mercer County, Hydrologic Unit 02030105, at bridge on Elm Ridge Road, 0.2 mi above mouth, and 1.2 mi west of Rosedale.	3.83	1957-59, 1968-73, 1975, 1985	11-15-84 7-19-85	0.19 0.08
*01401520	Beden Brook near Hopewell, NJ	Lat 40°23'02", long 74°44'28", Mercer County, Hydrologic Unit 02030105, at bridge on Aunt Molly Road, 0.8 mi upstream from Province Line Road and 1.2 mi east of Hopewell.	6.67	1965-72, 1985	11-15-84	0.94
01403330	Bound Brook at South Plainfield, NJ	Lat 40°34'43", long 74°24'45", Middlesex County, Hydrologic Unit 02030105, at bridge on Hamilton Road in South Plainfield, 0.5 mi upstream from Cedar Brook, and 1.9 mi east of New Market.	9.55	1979-85	4-27-85 8-12-85 9-17-85	4.2 1.5 3.3
01403350	Cedar Brook at South Plainfield, NJ	Lat 40°34'57", long 74°24'53", Middlesex County, Hydrologic Unit 02030105, at bridge on Lakeview Road in South Plainfield, 0.4 mi upstream from mouth, and 2.0 mi east of Dunellen.	7.1	1982, 1984-85	4-27-85 8-12-85 9-17-85	0.92 5.0 0.46
01404060	Ambrose Brook at Middlesex, NJ	Lat 40°34'03", long 74°31'02", Middlesex County, Hydrologic Unit 02030105, at dam, 900 ft upstream from bridge on State Route 18 in Middlesex, and 0.7 mi upstream from mouth.	13.9	1979-85	4-27-85 8-12-85 9-17-85	2.7 2.6 2.6
01404180	Mill Brook at Highland Park, NJ	Lat 40°30'23", long 74°25'51", Middlesex County, Hydrologic Unit 02030105, at bridge on Harrison Street in Highland Park, 0.7 mi upstream from mouth, and 0.9 mi northeast of New Brunswick.	1.41	1979-85	4-27-85 8-12-85 9-17-85	0.16 0.22 0.13
01405170	Milford Brook at Englishtown, NJ	Lat 40°18'02", long 74°20'07", Monmouth County, Hydrologic Unit 02030105, at bridge on Conmack Road, 0.6 mi upstream from McGellairds Brook, 1.2 mi east of Englishtown, and 2.0 mi southwest of Gordons Corner.	4.86	1982, 1984-85	8-12-85 9-17-85	2.8 1.0
01405180	McGellairds Brook at Englishtown, NJ	Lat 40°18'06", long 74°21'26", Monmouth County, Hydrologic Unit 02030105, at bridge on Wilson Avenue in Englishtown, 0.8 mi downstream from Milford Brook, 1.0 mi southeast of Monmouth-Middlesex County line, and 5.5 mi northwest of Freehold.	14.9	1982, 1984-85	4-27-85 8-12-85 9-17-85	6.9 11.8 4.8
01405210	Pine Brook at Clarks Mills, NJ	Lat 40°18'58", long 74°19'51", Monmouth County, Hydrologic Unit 02030105, at bridge on Winthrop Drive, 1.3 mi east of Clarks Mills, 1.9 mi upstream of Matchaponix Brook, and 4.8 mi northwest of Freehold.	4.66	1982, 1984-85	4-27-85 8-12-85 9-17-85	2.3 2.2 1.6

Discharge measurements made at low-flow partial-record stations during water year 1985--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Raritan River basin--Continued				
01405240	Matchaponix Brook near Englishtown, NJ	Lat 40°19'21", long 74°21'35", Middlesex County, Hydrologic Unit 0203105, at bridge on Union Hill Road, 1.9 mi north of Englishtown, 2.8 mi northwest of Gordons Corner and 3.9 mi upstream of Barclay Brook.	29.1	1979-85	4-27-85 8-12-85 9-17-85	18 37 15
01405285	Barclay Brook near Englishtown, NJ	Lat 40°20'53", long 74°21'27", Middlesex County, Hydrologic Unit 02030105, at bridge on State Route 527 (Old Bridge-Englishtown Road), 0.6 mi south of Redshaw Corner, 0.9 mi upstream from mouth, and 3.5 mi north of Englishtown.	4.94	1979-85	4-27-85 8-12-85 9-17-85	2.4 1.3 0.78
01405300	Matchaponix Brook at Spotswood, NJ	Lat 40°22'53", long 74°22'51", Middlesex County, Hydrologic Unit 02030105, 0.9 mi southeast of Spotswood, 1.1 mi upstream from confluence with Manalapan Brook, and 2.3 mi southwest of Old Bridge.	43.9	1952-67‡, 1968-85b	4-27-85 8-12-85 9-17-85	28 34 18
01405335	Manalapan Brook near Manalapan, NJ	Lat 40°16'45", long 74°22'53", Monmouth County, Hydrologic Unit 02030105, at bridge on South Main Street, 1.8 mi northeast of Manalapan, 1.8 mi southwest of Englishtown, and 5.6 mi southeast of Jamesburg.	16.0	1979-85	4-27-85 8-12-85 9-17-85	8.8 19 5.8
01406000	Deep Run near Browntown, NJ	Lat 40°22'30", long 74°18'14", Middlesex County, Hydrologic Unit 02030105, upstream from highway bridge, 0.7 mi downstream from the Middlesex-Monmouth County line, and 1.8 mi south of Browntown.	8.07	1933-40‡, 1982, 1984-85	4-27-85 8-12-85 9-17-85	5.5 4.5 1.8
		Manasquan River basin				
*01408015	Mingamahone Brook at Farmingdale, NJ	Lat 40°11'58", long 74°09'42", Monmouth County, Hydrologic Unit 02040301, at bridge on Belmar Road, 0.2 mi east of Farmingdale, 0.2 mi northeast of Lakewood-Farmingdale Road (Route 547) and 0.2 mi downstream of railroad bridge.	6.20	1969-74, 1985	4-15-85	5.5
		Mullica River basin				
*01409375	Mullica River near Atco, NJ	Lat 39°47'08", long 74°51'38", Camden County, Hydrologic Unit 02040301, 50 ft downstream from Jackson-Medford Road and 1.8 mi northeast of Pennsylvania-Reading Seashore Lines railroad and Atco Street in Atco.	3.22	1975-85	4-27-85 8-12-85 9-17-85	0.67 0.30 0.37
01409390	Mullica River at Atsion, NJ	Lat 39°44'19", long 74°43'20", Burlington County, Hydrologic Unit 2040301, at abandoned bridge on Central Railroad of New Jersey in Atsion, 500 ft downstream from Wesickaman Creek, and 0.3 mi southeast of Atsion.	33.1	1975-84	4-27-85 8-12-85 9-17-85	23 14 8.8
*01409409	Blue Anchor Brook near Blue Anchor, NJ	Lat 39°41'17", long 74°51'00", Camden County, Hydrologic Unit 02040301, at bridge on Spring Garden Winslow Road, downstream side of unnamed pond, 0.6 mi southwest of Ancora and 0.8 mi southwest of White Horse Pike (U.S.Route 30).	3.01	1974-80, 1985	4-17-85	0.51
01409410	Albertson Brook near Hammonton, NJ	Lat 39°41'41", long 74°45'21", Atlantic County, Hydrologic Unit 02040301, at bridge on U.S. Route 206, 3.1 mi downstream from confluence of Pump Branch and Blue Anchor Brook, 3.5 mi south of Atsion, and 5.2 mi northeast of Hammonton.	19.3	1975-85	4-27-85 8-12-85 9-17-85	16 14 8.9

Discharge measurements made at low-flow partial-record stations during water year 1985--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
01409411	Nescochague Creek at Pleasant Mills, NJ	Lat 39°38'28", long 74°39'43", Atlantic County, Hydrologic Unit 02040301, at bridge on sand road in Pleasant Mills, 0.2 mi upstream from Mullica River, and 0.6 mi west of Batsto.	43.7	1975-85	4-27-85 8-12-85 9-17-85	29 27 14
01409450	Springers Brook near Indian Mills, NJ	Lat 39°46'45", long 74°44'20", Burlington County, Hydrologic Unit 02040301, at bridge on U.S. Route 206, 1.1 mi downstream of Indian Mills Brook tributary.	12.6	1959-63, 1977, 1985	8-13-85	2.4
		Great Egg Harbor River basin				
01411053	Hospitality Branch at Berryland, NJ	Lat 39°36'31", long 74°54'34", Gloucester County, Hydrologic Unit 02040302, at bridge on Piney Hollow Road, 0.3 mi southwest of Berryland, 1.2 mi upstream of Oak Branch and 3.4 mi west of Folsom.	20.0	1976-85	4-27-85 8-12-85 9-17-85	15 22 11
01411140	Deep Run at Weymouth, NJ	Lat 39°30'26", long 74°46'56", Atlantic County, Hydrologic Unit 02040302, at bridge on State Highway 559, 0.3 mi upstream of mouth, and 0.5 mi southwest of Weymouth.	20.0	1976-85	4-27-85 8-12-85 9-17-85	19 19 10

* Also a crest-stage partial-record station.
a Not previously published.
b Operated as a continuous-record gaging station by Duhernal Water Company. Recorder charts on file in U.S. Geological Survey, West Trenton Office.
‡ Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENT 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 (*); measurements of peak flow by a dagger (†).

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin				
01379100 Dead River	Passaic River	Lat 40°39'15", long 74°34'35", Somerset County, Hydrologic Unit 02030103, at bridge on Martinsville Road (State Route 525), 0.2 mi upstream from Harrisons Brook, and 0.7 mi south of Liberty Corner.	7.57	1974-75, 1983-84	9-21-84a	*0.31
01379450 Passaic River	Newark Bay	Lat 40°42"49", long 74°24'28", Union County, Hydrologic Unit 02030103, at bridge on South Street at Oakwood Park, 0.6 mi downstream from Salt Brook, and 2.3 mi southeast of Chatham.	-	1983-84	9-20-84b	*22
01379530 Canoe Brook	Passaic River	Lat 40°45'21", long 74°21'43", Essex County, Hydrologic Unit 02030103, 0.5 mi upstream of mouth, 2.0 mi north of Summit.	11.0	1933-60b, 1961-84c	11-10-83c	*0
					1-23-84c	*2.6
					3-12-84c	5.9
					4-25-84c	10
					8-27-84c	1.5
					10-12-84	*0
					11-27-94	*0
					1-03-85	13.6
					3-26-85	*0
					5-15-85	*1.2
					6-19-85	4.4
					7-26-85	32
					9-10-85	*0
01379580 Passaic River	Newark Bay	Lat 40°49'39", long 74°20'07", Morris County, Hydrologic Unit 02030103, at Swinefield Bridge on Eagle Rock Avenue, 1.0 mi southeast of Hanover Neck, 1.7 mi southwest of West Caldwell, and 2.1 mi upstream from mouth of Rockaway River.	128	1983-84	10-12-83a	31
01379690 Rockaway River	Passaic River	Lat 40°56'38", long 74°34'57", Morris County, Hydrologic Unit 02030103, 700 ft northwest of Berkshire Valley Road, 800 ft southeast of Taylor Road and 1.1 mi upstream of State Route 15.	23.1	-	10-16-84	*6.5
					9-19-85	*9.9
01379695 Rockaway River tributary No. 9	Rockaway River	Lat 40°56'36", long 74°35'42", Morris County, Hydrologic Unit 02030103, 200 ft east of State Route 15, 0.4 mi upstream of Taylor Road and 0.9 mi north of Berkshire Valley.	0.37	-	10-16-84	*0
					9-19-85	*0
01379697 Rockaway River tributary No. 9	Rockaway River	Lat 40°56'21", long 74°35'13", Morris County, Hydrologic Unit 0203103, 300 ft upstream of mouth, 950 ft downstream of Taylor Road and 0.6 mi north of Berkshire Valley.	0.86	-	10-16-84	*0
					9-19-85	*0
01379710 Rockaway River	Passaic River	Lat 40°54'44", long 74°36"08", Morris County, Hydrologic Unit 02030103, at former Wharton Northern Railroad bridge, 1.0 mi upstream of Stephens Brook and 1.5 mi northwest of Wharton.	27.4	1966, 1981	10-16-84	*7.8
					9-19-85	*8.9
01379740 Rockaway River	Passaic River	Lat 40°54'13", long 74°35'25", Morris County, Hydrologic Unit 02030103, at bridge on West Central Avenue, 0.2 mi upstream of Washington Pond and 2.1 mi northwest of Dover.	30.3	-	10-16-84	*11
					9-19-85	*12

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985--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	10-16-84 9-17-85	*3.6 *4.6
01379805 Rockaway River	Passaic River	Lat 40°53'29", long 74°34'10", Morris County, Hydrologic Unit 02030103, 0.5 mi upstream from Jackson Brook, 0.7 mi downstream of Green Pond Brook, and 2.0 mi east of Roxbury.	46.3	1983-84	10-16-84 9-19-85	*16 *19
01379808 Rockaway River	Passaic River	Lat 40°53'17", long 74°34'09", Morris County, Hydrologic Unit 02030103, 0.2 mi upstream from Jackson Brook, 1.0 mi downstream of Green Pond Brook, and 2.1 mi east of Roxbury.	47.1	1983-84	10-16-84 11-15-84 12-20-84 9-19-85	*16 21 42 *16
01379809 Rockaway River	Passaic River	Lat 40°53'12", long 74°34'06", Morris County, Hydrologic Unit 02030103, 300 ft upstream of confluence with Jackson Brook, at Dover.	47.1	1984	9-13-84b	*35
01379820 Jackson Brook	Rockaway River	Lat 40°53'09", long 74°34'07", Morris County, Hydrologic Unit 02030103, in Dover at mouth, 400 ft downstream of Spring Brook.	4.87	-	10-16-84 9-19-85	*2.8 *1.9
01379855 Rockaway River	Passaic River	Lat 40°52'47", long 74°32'03", Morris County, Hydrologic Unit 02030103, at bridge on Dover-Rockaway Road, 800 ft north of Franklin Road, 0.8 mi downstream of bridge at East Blackwell Street and 1.3 mi southeast of Dover.	56.1	-	10-16-84 9-19-85	*22 *24
01379870 Mill Brook	Rockaway River	Lat 40°52'39", long 74°31'31", Morris County, Hydrologic Unit 02030103, at mouth, 600 ft downstream of bridge on Palmer Road, 0.4 mi downstream of bridge at Dover-Rockaway Road and 1.7 mi southeast of Dover.	4.84	-	10-16-84 9-19-85	*3.0 *2.3
01379875 Foxs Pond	Rockaway River	Lat 40°53'53", long 74°30'58", Morris County, Hydrologic Unit 02030103, at Rockaway, 200 ft upstream of mouth, 600 ft east of State Route 513 and and 0.5 mi downstream of Foxs Pond.	1.39	-	10-16-84 9-19-85	*0.10 *0.10
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 tributary.	64.3	-	10-16-84 9-19-85	*25 *24
01380000 Beaver Brook	Passaic River	Lat 40°57'38", long 74°27'43", Morris County, Hydrologic Unit 02030103, 50 ft below sluice gates at outlet of Splitrock Pond, 2 mi northeast of Hibernia, and 3.5 mi upstream of mouth of Hibernia Brook.	5.50	1925-46d, 1976-84e, 1984	10-22-84 11-26-84 1-03-85 2-08-85 3-26-85 5-02-85 6-11-85 7-26-85 9-05-85	1.8 1.9 10 4.0 4.0 4.4 4.4 4.0 1.8

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin--Continued				
01380010 Beaver Brook	Rockaway River	Lat 40°56'49", long 74°27'38", Morris County, Hydrologic Unit 02030103, at bridge on Meriden-Lyonsville Road, 700 ft west of Meriden Road, 1.3 mi downstream of Splitrock Reservoir and 1.3 mi southwest of Lyonsville.	6.8	-	10-16-84 9-19-85	*2.0 *1.9
01380015 Beaver Brook tributary No. 3	Beaver Brook	Lat 40°56'41", long 74°27'21", Morris County, Hydrologic Unit 02030103, at bridge on Meridan Road, 0.2 mi from mouth and 0.2 mi south of Meriden-Lyonsville Road (at Meriden).	0.25	-	10-16-84 9-19-85	*0.04 *0.04
01380020 Beaver Brook tributary No. 2	Beaver Brook	Lat 40°55'32", long 74°28'47", Morris County, Hydrologic Unit 02030103, at bridge on Ford Road, 0.2 mi upstream of mouth and 0.5 mi southeast of Beach Glen.	0.41	-	10-16-84 9-19-85	*0.02 *0
01380075 Hibernia Brook	Beaver Brook	Lat 40°55'50", long 74°29'14", Morris County, Hydrologic Unit 02030103, at bridge on Meriden-Lyonsville Road, at Beach Glen, 200 ft east of Green Pond Road and 0.5 mi upstream of mouth.	7.73	-	10-16-84 9-19-85	*1.1 *0.83
01380090 White Meadow Brook	Beaver Brook	Lat 40°55'01", long 74°30'13", Morris County, Hydrologic 02030103, 100 ft west of Sanders Road, 0.7 mi downstream of White Meadow Lake and 0.8 mi north of Denville.	3.35	-	10-16-84 9-19-85	*0.32 *0.34
01380095 Beaver Brook tributary No. 1	Beaver Brook	Lat 40°54'47", long 74°29'05", Morris County, Hydrologic Unit 02030103, at mouth, 100 ft upstream of Ford Road, 1.2 mi south of Beach Glen and 1.6 mi northwest of Denville.	0.16	-	10-17-84 9-19-85	*0.11 *0.01
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	10-17-84 9-19-85	*2.6 *2.5
01380110 Rockaway River	Passaic River	Lat 40°53'57", long 74°2911", Morris County, Hydrologic Unit 02030103, at bridge on Savage Avenue, 0.2 mi north of Route 46, 0.2 mi downstream of I-80 bridge and 1.6 mi northwest of Denville.	87.6	-	10-17-84 9-19-85	*28 *28
01380135 Rockaway River	Passaic River	Lat 40°53'38", long 74°28'19", Morris County, Hydrologic Unit 02030103, at bridge on Pocono Road, 0.8 mi east of Denville and 1.0 mi downstream of bridge at Savage Avenue.	96.7	-	10-17-84 9-19-85	*31 *40
01380140 Rockaway River	Rockaway River	Lat 40°54'13", long 74°27'50", Morris County, Hydrologic Unit 02030103, at bridge on Diamond Spring Road, 0.1 mi upstream of mouth, 0.6 mi downstream of Cedar Lake and 1.2 mi northeast of Denville.	1.80	-	10-17-84 9-19-85	*0.11 *0.34

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin--Continued				
01380145 Rockaway River	Passaic River	Lat 40°54'38", long 74°27'11", Morris County, Hydrologic Unit 02030103, at bridge on Bush Road, 0.2 mi east of Diamond Spring Road, 1.4 mi downstream of bridge at Pocono Road and 1.8 mi northeast of Denville.	99.5	-	10-17-84 9-19-85	*31 *42
01380280 Stony Brook tributary	Stony Brook	Lat 40°57'04", long 74°24'48", Morris County, Hydrologic Unit 02030103, 0.1 mi northwest of Powerville Road, 0.8 mi downstream of Lake Juliet and 1.3 mi northwest of Taylortown.	2.49	-	10-17-84 9-19-85	*0.10 *0.15
01380290 Stony Brook	Rockaway River	Lat 40°56'24", long 74°25'08", Morris County, Hydrologic Unit 02030103, at bridge on Powerville Road, 300 ft downstream of unnamed pond, 600 ft north of Rockaway Valley Road and 1.2 mi west of Taylortown.	4.98	-	10-17-84 9-19-85	*0.14 *0.06
01380310 Dixon Pond	Rockaway River	Lat 40°55'57", long 74°26'17", Morris County, Hydrologic Unit 02030103, at bridge on Rockaway Valley Road, 800 ft upstream of mouth and 0.9 mi north of Powerville.	3.05	-	10-17-84 9-19-85	*0.08 *0.12
01380320 Stony Brook at Boonton	Rockaway River	Lat 40°55'42" long 74°26'18", Morris County, Hydrologic Unit 02030103, at bridge on Valley Road, 0.4 mi from the mouth and 0.8 mi northwest of Powerville.	12.7	-	10-17-84 9-19-85	0 0
01380325 Rockaway River tributary No. 7	Rockaway River	Lat 40°55'23", long 74°26'17", Morris County, Hydrologic Unit 02030103, at west end of Rockaway Drive, 100 ft downstream of unnamed pond and 0.5 mi west of Powerville.	0.44	-	10-17-84 9-19-85	0.1 f0.03
01380330 Griffith Pond outlet	Rockaway River	Lat 40°55'12", long 74°25'35", Morris County, Hydrologic Unit 02030103, at bridge on Rockaway Drive at Powerville 300 ft upstream of the mouth and 1.2 mi northwest of Boonton.	0.82	-	10-17-84 9-19-85	0.04 0.02
01380335 Rockaway River	Passaic River	Lat 40°54'53", long 74°25'40", Morris County, Hydrologic Unit 02030103,at bridge on North Main Street, 0.4 mi downstream of bridge on Powerville Road and 0.4 mi downstream of bridge on Powerville Road and 0.4 mi south of Powerville.	115	-	10-17-84 9-19-85	36 37
01380340 Hood Dam outlet	Rockaway River	Lat40°54'47", long 74°25'31", Morris County, Hydrologic Unit 02030103, 100 ft upstream of mouth, 200 ft southwest of North Main Street and 0.6 mi south of Powerville.	0.18	-	10-17-84 9-19-85	0.002 0
01380350 Rockaway River tributary No. 1	Rockaway River	Lat 40°53'39", long 74°25'33", Morris County, Hydrologic Unit 02030103, 700 ft from the mouth, 0.1 mi downstream of Powerville Road and 0.7 mi of Powerville.	0.79	-	10-17-84 9-19-85	0.07 0.06

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin--Continued				
01387525 Ramapo River	Pompton River	Lat 41°05'37", long 74°10'21", Bergen County, Hydrologic Unit 02030103, at north and of island, 800 ft downstream of former mouth of Stag Brook and 1.2 mi west of Mahwah.	120	1964, 1982	9-15-83e	15
01387530 Ramapo River	Pompton River	Lat 41°05'26", long 74°10'22", Bergen County, Hydrologic Unit 02030103, 0.1 mi upstream of bridge at Gravel Road, 0.4 mi downstream of former mouth of Stag Brook (Clove Brook) and 1.0 mi north of Darlington.	-	-	9-15-83e 9-16-83e	14 *13
01387535 Ramapo River	Pompton River	Lat 41°05'13", long 74°10'124", Bergen County, Hydrologic Unit 02030103, at bridge on U.S. Route 202, 100 ft above mouth and 0.8 mi northeast of Darlington.	-	1964, 1982	5-18-82	e0.19
01387536 Ramapo River	Pompton River	Lat 41°05'15", long 74°10'33", Bergen County, Hydrologic Unit 02030103, 800 ft west of Ramapo Valley Road (U.S. Route 202), 0.3 mi downstream of bridge at Gravel Road and 0.7 mi northeast of Darlington.	-	-	9-16-83e	*12
01387537 Ramapo River	Pompton River	Lat 41°05'25", long 74°10'47", Bergen County, Hydrologic 02030103, 0.4 mi west of Ramapo Valley Road (U.S. Route 202), 0.5 mi upstream of bridge at Halifax Road and 0.7 mi north of Darlington.	-	-	9-16-83e	*11
01387765 Ramapo River	Pompton River	Lat 41°03'12", long 74°13'38", Bergen County, Hydrologic Unit 02030103, at bridge on Glen Gray Road (Midvale-Mountain Road), 0.2 mi west of Ramapo Valley Road (U.S. Route 202), 0.6 mi downstream of Fox Brook and 1.8 mi north of Oakland.	-	-	5-18-82e 10-13-82e 9-15-83e	*89 *30 *14
01387767 Ramapo River	Pompton River	Lat 41°03'02", long 74°13'39", Bergen County, Hydrologic Unit 0203013, 0.1 mi upstream of unnamed tributary, 0.2 mi downstream of bridge on Midvale Mountain Road and 1.6 mi north of Oakland.	-	-	9-15-83e	*12
01387769 Ramapo River	Pompton River	Lat 41°03'03", long 74°13'38", Bergen County, Hydrologic Unit 02030103, 0.3 mi downstream of bridge at Midvale Mountain Road, 0.3 mi west of Ramapo Valley Road (U.S. Route 202) and 1.4 mi north of Oakland.	-	-	10-13-82e 9-15-83	*26 *11
01389140 Deepavaal Brook	Passaic River	Lat 40°53'14", long 74°16'00", Essex County, Hydrologic Unit 02030103, at bridge on Little Falls Road, 300 ft northwest of Pier Lane, 400 ft upstream from Passaic River, and 0.8 mi southeast of Two Bridges.	7.57	1970, 1983-84	10-12-83b	3.9
01389400 Passaic River	Newark Bay	Lat 40°52'46", long 74°14'49", Passaic County, Hydrologic Unit 02030103, at bridge on Pompton Turnpike (State Route 23) in Singac, 300 ft upstream from the Erie-Lackawanna railroad bridge, and 1.3 mi northwest of Little Falls.	-	1983-84	10-12-83	a100

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Passaic River basin--Continued				
01389630 Passaic River	Newark Bay	Lat 40°54'14", long 74°12'03", Passaic County, Hydrologic Unit 02030103, at bridge on Towowa Road in Towowa, 0.9 mi upstream from Molly Ann Brook, and 2.3 mi northeast of Little Falls.	-	1972, 1983-84	10-12-83	a155
		Rahway River basin				
01394900 Rahway River	Arthur Kill	Lat 40°37'39", long 74°17'10", Union County, Hydrologic Unit 02030104, at bridge on Valley Road in Clark, 200 ft downstream of unnamed pond and 1.5 mi north of Rahway.	-	-	1-10-85 3-25-85 5-15-85 7-25-85	*13 12 12 *9.0
01394990 Rahway River	Arthur Kill	Lat 40°37'07", long 74°17'24", Union County, Hydrologic Unit 02030104, at Rahway downstream of dam at Rahway waterworks, 800 ft north of Westfield Ave and 0.4 mi upstream of bridge at St. Georges Avenue.	-	-	1-10-85 3-25-85 5-15-85 6-20-85 7-25-85	*8.9 5.6 2.4 7.2 *2.5
		Raritan River basin				
01400880 Stony Brook	Millstone River	Lat 40°22'53", long 74°48'11", Mercer County, Hydrologic Unit 02030105, downstream of unnamed tributary, 0.8 mi and 1.4 mi east of Woodsville.	2.12	-	11-15-84 7-19-85	*0.59 0.15
01400910 Stony Brook Branch	Stony Brook	Lat 40°21'07", long 74°47'04", Mercer County, Hydrologic Unit 02030105, 1,000 ft upstream from Titus Mill Road, at mouth of Pennington and 1.8 mi east of State Route 31.	-	-	11-15-84 7-19-85	*0.27 *0.18
01400920 Stony Brook	Millstone River	Lat 40°20'21", long 74°46'42", Mercer County, Hydrologic Unit 02030105, 250 ft upstream from confluence with Baldwin Creek in, Hopewell Township, and 1.1 mi northwest of intersection of East Delaware Avenue and Main Street in Pennington Borough.	f21	1963, 1971-72	11-15-84 7-19-85	*1.5 *0.74
01400923 Baldwin Creek	Stony Brook	Lat 40°20'26", long 74°48'38", Mercer County, Hydrologic Unit 02030105, at bridge on unimproved road, 0.1 mi north of Yard Road, 0.2 mi upstream of unnamed tributary and 1.3 mi northwest of Pennington.	-	-	11-15-84 7-19-85	*0.09 *0.04
01400925 Baldwin Creek	Stony Brook	Lat 40°21'21", long 74°48'07", Mercer County, Hydrologic Unit 02030105, at bridge on Yard Road, 200 ft upstream of unnamed tributary, 0.3 mi west of route 31 and 1.0 north of Pennington.	-	-	11-15-84 7-19-85	*0.22 *0.16
01400927 Baldwin Creek tributary	Baldwin Creek	Lat 40°20'15", long 74°47'56", Mercer County, Hydrologic Unit 02030105, 450 ft upstream of bridge on State Route 31, 0.2 mi south of Yard Road, 0.4 mi north of Pleasant Valley Road and 0.8 mi from Pennington.	-	-	11-15-84 7-19-85	*0.04 *0
01400932 Baldwin Creek	Stony Creek	Lat 40°20'26", long 074°46'48", Mercer County, Hydrologic Unit 02030105, just downstream from earthfill dam, 1,000 ft upstream from mouth, and 1.1 mi northeast of Pennington.	2.52	1962-70g	11-15-84 7-19-85	*0.07 *0.06

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Raritan River basin--Continued				
01400936 Lewis Brook	Stony Brook	Lat 40°19'53", long 74°47'32", Mercer County, Hydrologic Unit 02030105, at bridge on North Main Street, 0.2 mi north of Delaware Avenue at Brookside Avenue, one street south of Franklin Avenue at Pennington and 0.6 mi upstream of mouth.	-		11-15-84 7-19-85	*0.12 *0.07
01400938 Lewis Brook	Stony Brook	Lat 40°20'02", long 74°46'58", Mercer County, Hydrologic Unit 02030105, 200 ft upstream from mouth, 0.3 mi northeast of intersection of King George and Mount Rose Road in Pennington.	f0.5	1971-72	11-15-84 7-19-85	*0.19 *0.09
01400939 Lewis Brook tributary	Lewis Brook	Lat 40°20°00", long 74°46'57", Mercer County, Hydrologic Unit 02030105, 100 ft upstream from mouth and 0.3 mi northeast of intersection of King George Road and Mount Rose Road in Pennington.	f0.1	1971-72	11-15-84 7-19-85	*0 *0
01400940 Stony Brook	Millstone River	Lat 40°19'55", long 74°46'39", Mercer County, Hydrologic Unit 02030105, at bridge on Mt. Rose Road (Pennington-Rocky Hill Road), 100 ft east of King George Road, 100 ft upstream of unnamed tributary and 1.2 mi east of Pennington.	-	-	11-15-84 7-19-85	*2.1 *1.3
01400941 Stony Brook tributary No. 4	Stony Brook	Lat 40°19'52", long 74°46'42", Mercer County, Hydrologic Unit 02030105, 100 ft upstream from mouth near Mount Rose Road at Pennington, 0.2 mi downstream from Federal City Road.	f0.4	1971-72	11-15-84 7-19-85	*0.03 *0.04
01400942 Stony Brook tributary No. 5	Stony Brook	Lat 40°18'49", long 74°47'09", Mercer County, Hydrologic Unit 02030105, at bridge on Pennington-Lawrenceville Road at Baldwins Corner, 1.0 mi south of Pennington and 1.5 mi upstream from mouth	-	-	11-15-84 7-19-85	*0.06 *0.10
01400944 Stony Brook tributary No. 5	Stony Brook	Lat 40°19'14", long 74°46'45", Mercer County, Hydrologic Unit 02030105, at north end of Oak Street, 400 ft upstream of unnamed lake and 0.75 mi south of Pennington.	-	-	11-15-84 7-19-85	*0.07 *0.02
01400945 Stony Brook tributary No. 5	Stony Brook	Lat 40°19'43", long 74°46'12", Mercer County, Hydrologic Unit 02030105, at bridge on Federal City Road, east of Pennington, and 0.1 mi upstream from mouth.	f1.2	-	11-15-84 7-19-85	*0.35 *0.01
01400950 Hart Brook	Stony Brook	Lat 40°19'17", long 74°45'38" , Mercer County, Hydrologic Unit 02030105, at culvert on Federal City Road, 1.0 mi upstream from mouth and 1.7 mi southeast of Pennington.	f0.6	-	7-19-85	*0
01400951 Hart Brook	Stony Brook	Lat 40°19'52", long 74°45'23", Mercer County, Hydrologic Unit 02030105, 0.2 mi upstream from Stony Brook, 0.6 mi downstream from Blackwells Road, 1.9 mi east of Pennington, and 1.9 mi southwest of Rosedale.	f1.0	1965	11-15-84 7-19-85	*0.32 *0
01400952 Stony Brook tributary No. 2	Stony Brook	Lat 40°20'08", long 74°44'48", Mercer County, Hydrologic Unit 02030105, 0.3 mi upstream of Honey Branch, 1.3 mi west of Rosedale, and 2.4 mi east of Pennington.	f0.6	1965	11-15-84 7-19-85	*0.01 *0

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Raritan River basin--Continued				
01400953 Honey Branch	Stony Brook	Lat 40°21'27", long 74°45'58", Mercer County, Hydrologic Unit 02030105, at bridge on Wargo Road, 0.5 mi upstream of Pennington-Rocky Hill Road and 8 mi north of Centerville.	0.70	-	11-15-85 7-19-85	*0.02 *0.002
01400960 Honey Branch	Stony Brook	Lat 40°21'17", long 74°45'29", Mercer County, Hydrologic Unit 02030105, at bridge on Mount Rose Road, 0.6 mi northeast of Centerville, 1.4 mi southeast of Mount Rose and 2.5 mi northeast of Pennington.	1.28	-	11-15-84 7-19-85	*0.04 *0.003
01400962 Branch tributary	Honey Branch	Lat 40"21'22", long 74"45'22", Mercer County, Hydrologic Unit 02030105, at bridge on Bayberry Road (formerly Van Kirk Road) 0.1 above mouth, and 2.7 mi northeast of Pennington.	f0.5	1965, 1968-69	11-15-84 7-19-85	*0.16 *0.02
01400974 Stony Brook	Millstone River	Lat 40°20'35", long 74°43'33", Mercer County, Hydrologic Unit 02030105, at bridge on Carter Road in Rosedale, 1.2 mi downstream from Honey Branch.	34.2	1965, 1971-72	11-15-84 7-19-85	*3.1 *1.8
01400978 Cleveland Brook	Stony Brook	Lat 40°21'24", long 74°45'51", Mercer County, Hydrologic Unit 0230105, 800 ft upstream from Cleveland Brook Road, 1.4 mi north of Rosedale and 1.8 mi upstream of mouth	0.41	-	11-15-84 7-19-85	*0 *0
01400985 Stony Brook	Millstone River	Lat 40°21'09", long 74°42'39", Mercer County, Hydrologic Unit 02030105, at bridge on Province Line Road, 0.65 mi downstream of Cleveland Brook and 1.2 mi northeast of Rosedale.	36.2	-	11-15-84 7-19-85	*4.1 *3.0
01401510 Beden Brook	Millstone River	Lat 40°23'12", long 74°46'00", Mercer County, Hydrologic Unit 02030105, at bridge on Louellen Avenue at Hopewell, 400 ft west of West Broad Street and 1.1 mi upstream from Hopewell-Princeton Road (State Route 569).	0.55	-	11-15-84	*0.01
01401513 Beden Brook	Millstone River	Lat 40°23'02", long 74°44'42", Somerset County, Hydrologic Unit 02030105, 1,200 ft upstream from Aunt Molly Road, 0.9 mi southeast of Hopewell, and 2.8 mi southwest of Blawenburg.	-	1965	11-15-84	*0.15
01401515 Beden Brook tributary	Beden Brook	Lat 40°23'58", long 74°45'16", Mercer County, Hydrologic Unit 02030105, at bridge on dead end road, 0.1 mi west of Hopewell-Amwell Road, 0.8 mi northeast of Hopewell and 1.4 mi upstream of mouth.	-	-	11-15-84	*0.40
01401517 Beden Brook tributary	Beden Brook	Lat 40"23'02", long 74°44'38", Mercer County, Hydrologic Unit 02030105, at left bank, 900 ft upstream from Aunt Molly Road, 1.0 mi southeast of Hopewell, and 2.7 mi southwest of Blawenburg.	4.30	1965	11-15-84	*0.36

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Raritan River basin--Continued				
01401518 Beden Brook tributary No. 2	Beden Brook	Lat 40°23'01", long 74°44'32", Mercer County, Hydrologic Unit 02030105, at right bank, 200 ft upstream from Aunt Molly Road, 1.0 mi southeast of Hopewell, and 2.6 mi southwest of Blawenburg.	-	1965	11-15-84	*0.004
01401525 Beden Brook	Millstone River	Lat 40°23'25", long 174°43'52", Mercer County, Hydrologic Unit 02030105, at bridge on Province Line Road, 900 ft upstream of unnamed tributary and 0.6 mi south of Stoutsburg.	7.84	-	11-15-84	*0.94
01402540 Millstone River	Raritan River	Lat 40°31'47", long 74°35'19", Somerset County, Hydrologic Unit 02030105, at bridge on Wilhouski Street in Weston, 0.8 mi southwest of Alma White College, and 1.9 mi north of Millstone.	271	1979-81	11-13-84	135
01403200 Middle Brook	Raritan River	Lat 40°33'38", long 74°32'56", Middlesex County, Hydrologic Unit 02030105, at bridge on Lincoln Boulevard (old State Route 28), at Bound Brook, 0.5 mi above mouth.	17.2	1955, 1975, 1982-83	3-13-85	23

* Base flow.
† Peak flow.
a Not previously published
b Revised.
c Previously published as Passaic River, but actually Canoe Brook.
d Discharge records published in reports of the New Jersey Department of Environmental Protection.
e Discharge records on file in U.S. Geological Survey Office, West Trenton, New Jersey.
f Estimated
g Operated as continuous-recording gaging station.

The following table contains annual maximum stages 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 National Geodetic Vertical Datum of 1929 unless otherwise noted. Only the maximum stage is given. Information on some other high stages 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 has been determined.

ANNUAL MAXIMUM STAGES AT TIDAL CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Period of record	Annual Maximum	
				Date	Elevation NGVD* (ft)
01406700	Raritan River at Perth Amboy, NJ	Lat 40°30'31", long 74°17'30", Middlesex County, on downstream left bank, 20 ft downstream 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.	1967-70‡, 1980-85	2-12-85	7.00
01407030	Luppatatong Creek at Keyport, NJ	Lat 40°26'08", long 74°12'27", Monmouth County, on left bank upstream side of Front Street bridge in Keyport, 0.1 mi upstream from mouth, and 2.0 mi northwest of Matawan.	1980-85	9-27-85	7.08
01408168	Barnegat Bay at Mantoloking, NJ	Lat 40°42'24", long 74°03'25", Ocean County, at east end of Herbert Street (Mantoloking Road) bridge in Mantoloking, and 2.0 mi south of Bay Head.	1979-85 (discontinued)	2-12-85	3.68
01408200	Barnegat Bay at Bay Shore, NJ	Lat 39°56'56", long 74°06'52", Ocean County, at west end of State Route 37 bridge over Barnegat Bay at Bay Shore, 2.2 mi west of Seaside Heights, and 4.5 mi east of Toms River.	1965-85	9-27-85	3.22
01409000	Cedar Creek at Lanoka Harbor, NJ	Lat 39°52'05", long 74°10'06", Ocean County, at bridge on U.S. Route 9 in Lanoka Harbor, 0.6 mi south of Toms River, and 2.0 mi upstream from mouth.	1932-58‡, 1971‡, 1979-85 (discontinued)	9-27-85	3.16
01409145	Manahawkin Bay near Manahawkin, NJ	Lat 39°40'13", long 74°12'54", Ocean County, 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.	1965-85	9-27-85	4.42
01409285	Little Egg Harbor at Beach Haven, NJ	Lat 39°33'10", long 74°15'07", Ocean County, in Beach Haven at U.S. Coast Guard station, 6.0 mi southeast of Tuckerton and 7.4 mi southeast of Ship Bottom.	1979-85	9-27-85	5.82
01409510	Batsto River at Pleasant Mills, NJ	Lat 39°37'55", long 74°38'40", Ocean County, on right bank, 0.5 mi upstream from mouth, and 1.0 mi southeast of Pleasant Mills.	1958-85‡	10-14-84	4.05
01410100	Mullica River near Port Republic, NJ	Lat 39°33'12", long 74°27'46", Atlantic County, 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.	1965-85	9-27-85	5.35

ANNUAL MAXIMUM STAGES AT TIDAL CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Period of record	Annual Maximum	
				Date	Elevation NGVD* (ft)
01410500	Absecon Creek at Absecon, NJ	Lat 39°25'45", long 74°31'16", Atlantic County, on right bank 30 ft downstream from Doughty Pond Dam of Atlantic City Water Department, 1 mi west of Absecon, and 3.4 mi upstream from mouth.	1923-29‡, 1933-38‡, 1946-85‡	9-27-85	6.38
01410570	Beach Thorofare at Atlantic City, NJ	Lat 39°21'56", long 74°26'44", Atlantic County, on west abutment south side of Pennsylvania-Reading Seashore Lines railroad swivel bridge in Atlantic City, 0.5 mi northeast of Bader Field airport, and 2.7 mi northeast of Ventnor City.	1978‡, 1979-85	9-27-85	7.16
01411300	Tuckahoe River at Head of River, NJ	Lat 39°18'25", long 74°49'15", Cape May County, 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.	1979-85‡	9-27-85	4.49
01411318	Crook Horn Creek at Ocean City, NJ	Lat 39°15'09", long 74°37'44", Cape May County, at dock on property of county maintenance yard, 100 ft south of Roosevelt Boulevard, 1.3 mi southeast of Marmora, and 3.3 mi southwest of city hall in Ocean City.	1979-85 (discontinued)	9-27-85	5.83
01411320	Great Egg Harbor Bay at Ocean City, NJ	Lat 39°17'03", long 74°34'41", Cape May County, on bulkhead at west end of 7th Street (prior to October 1974, gage was located at Fifth Street), Ocean City, and 2.5 mi southeast of Somers Point.	1965-85	2-12-85	5.54
01411360	Great Channel at Stone Harbor, NJ	Lat 39°03'26", long 74°45'53", Cape May County, on bulkhead piling at east end of bridge at west end of Borough of Stone Harbor, 3.7 mi southeast of Cape May Court House, and 3.9 mi southwest of Avalon.	1965-85	9-27-85	4.42
01411390	Cape May Harbor at Cape May, NJ	Lat 38°56'54", long 74°53'26", Cape May County, on grounds of U.S. Coast Guard Receiving Center in Cape May, and 0.7 mi southeast of east end of Cape May Canal.	1965-85 (discontinued)	9-27-85	6.56

* National Geodetic Vertical Datum of 1929 (NGVD).
‡ Operated as a continuous record gaging station.

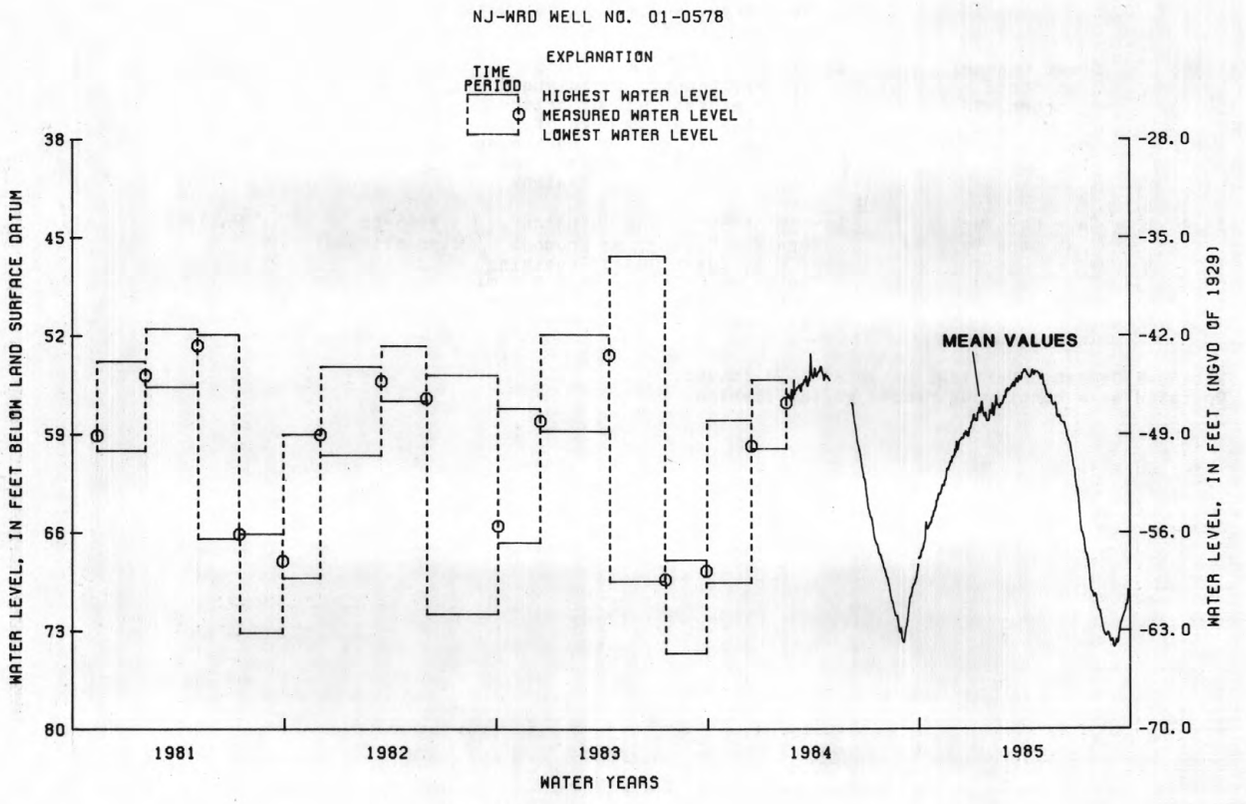
ATLANTIC COUNTY

391827074371001. Local I.D., Jobs Point Obs. NJ-WRD Well Number, 01-0578.
LOCATION.--Lat 39°18'26", long 74°37'09", Hydrologic Unit 02040302, on the west side of the Garden State Parkway at interchange 29, Somers Point.
Owner: U.S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 680 ft, screened 670 to 680 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, May 1977 to February 1984.
DATUM.--Land-surface datum is 10.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 9.34 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--October 1959 to June 1975, May 1977 to current year. Records for 1975 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.10 ft below land-surface datum, Apr. 13, 1961; lowest, 74.81 ft below land-surface datum, Sept. 3, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	67.44	63.18	60.01	57.57	57.25	55.79	54.55	55.55	58.08	64.13	71.14	73.96
10	66.75	62.83	59.53	58.03	56.98	55.60	54.95	56.14	58.35	66.00	71.64	73.58
15	65.56	62.30	59.21	57.27	56.91	55.53	54.44	56.27	59.21	67.22	72.92	72.34
20	65.43	61.43	59.03	57.24	56.77	55.15	54.48	56.83	59.89	68.04	73.39	71.70
25	64.89	60.91	59.09	57.44	56.57	54.99	54.61	56.72	61.31	70.05	73.34	71.13
EOM	64.17	60.61	58.27	57.86	56.41	54.59	55.09	57.65	62.64	70.49	73.61	70.13
MEAN	65.92	62.17	59.34	57.64	56.92	55.36	54.69	56.37	59.54	67.22	72.49	72.35

WATER YEAR 1985 -- MEAN 61.67 HIGH 53.61 APR 3 LOW 74.81 SEP 3



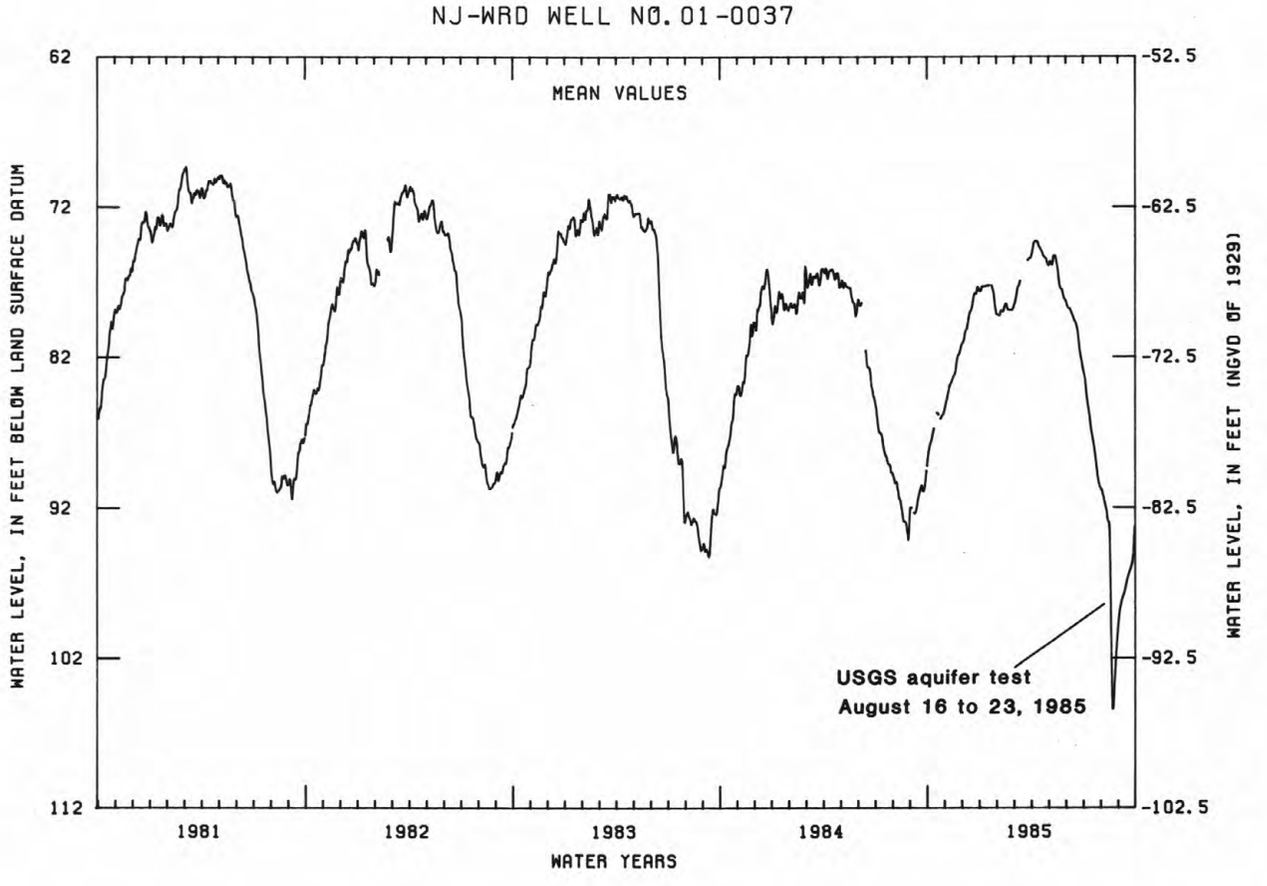
ATLANTIC COUNTY

392153074250101. Local I.D., Galen Hall Obs. NJ-WRD Well Number, 01-0037.
LOCATION.--Lat 39°21'51", long 74°24'59", Hydrologic Unit 02040302, near the intersection of Pacific and Congress Avenues, Atlantic City.
Owner: Atlantic City Municipal Utilities Authority.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 837 ft, screened 782 to 837 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. May 1977 to July 1980, water-level extremes recorder.
DATUM.--Land-surface datum is 9.54 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 0.90 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping. Water level affected by USGS aquifer test, August 16 to 23, 1985.
PERIOD OF RECORD.--January 1949 to August 1975, May 1977 to current year. Records for 1949 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.58 ft below land-surface datum, Mar. 7, 1962; lowest, 105.70 ft below land-surface datum, Aug. 22, 1985. (see remarks)

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	88.00	84.72	80.79	77.31	79.28	78.13	74.57	75.63	78.72	83.54	91.14	98.56
10	87.27	83.86	80.07	77.30	78.94	77.26	74.26	75.25	78.96	85.23	91.93	97.85
15	---	83.41	78.98	77.22	78.49	---	74.68	75.48	79.44	86.58	92.97	97.07
20	85.74	82.81	78.32	---	78.86	---	75.00	76.81	79.94	87.76	101.92	96.33
25	86.07	81.85	77.76	77.65	78.90	---	75.39	77.49	81.41	89.25	104.12	95.74
EOM	85.55	81.23	77.52	79.19	78.80	---	75.81	78.20	82.51	90.62	100.27	93.25
MEAN	86.85	83.26	79.06	77.67	78.88	---	74.91	76.43	79.86	86.75	96.57	96.95

WATER YEAR 1985 -- MEAN 82.85 HIGH 74.24 APR 10 LOW 105.70 AUG 22



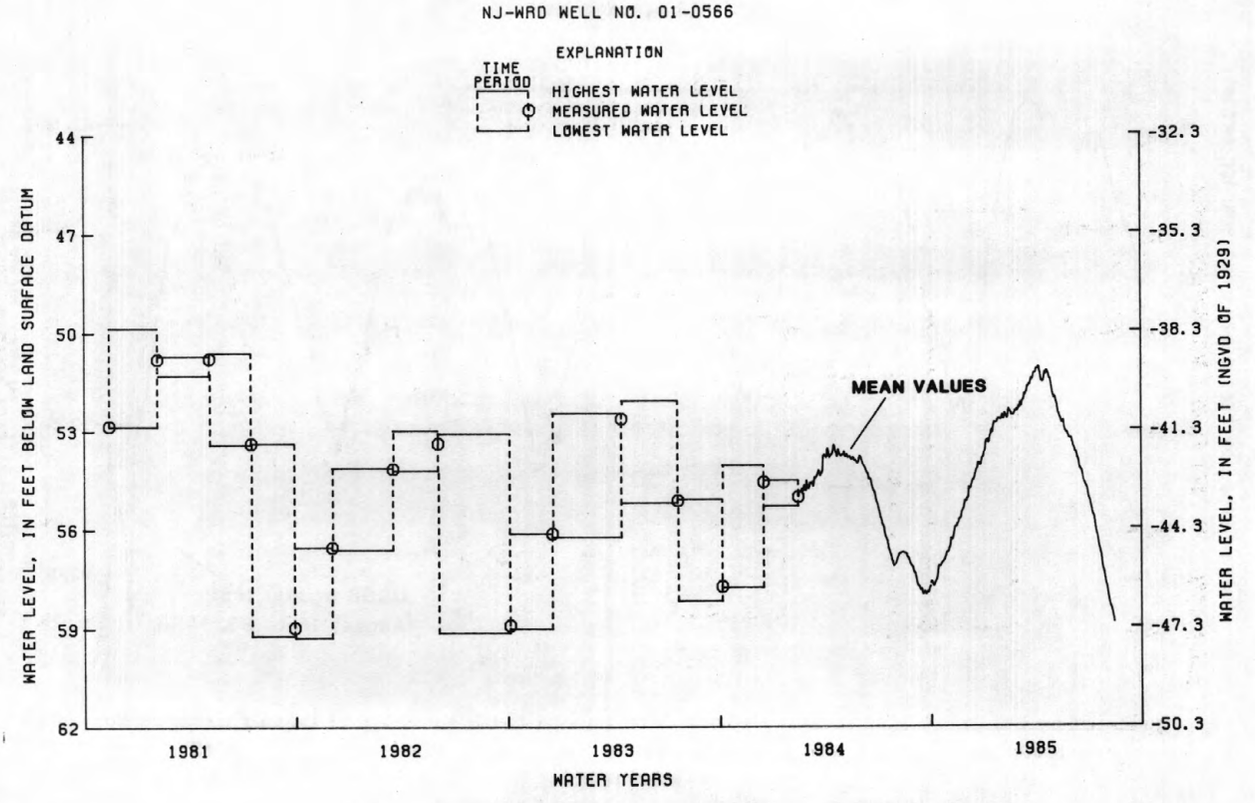
ATLANTIC COUNTY

392436074303501. Local I.D., Atlantic City W.D. 600 Obs. NJ-WRD Well Number, 01-0566.
LOCATION.--Lat 39°24'34", long 74°30'32", Hydrologic Unit 02040302, at the pumping station on Route 585 between Absecon and Pleasantville.
Owner: Atlantic City Municipal Utilities Authority.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 565 ft, length of screen unknown.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, May 1977 to February 1984.
DATUM.--Land-surface datum is 11.68 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping. Missing record from August to September, 1985 was due to recorder malfunction.
PERIOD OF RECORD.--March 1925 to August 1975, May 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.83 ft below land-surface datum, May 28, 1925; lowest, 61.88 ft below land-surface datum, Oct. 10, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.72	56.29	55.06	53.31	52.60	52.16	51.07	52.14	53.54	55.34	58.26	
10	57.59	56.14	54.68	53.38	52.64	52.09	51.51	52.53	53.78	55.69	58.56	
15	57.12	55.93	54.47	52.98	52.44	51.84	51.33	52.79	54.17	56.21	---	
20	57.04	55.70	54.17	52.77	52.53	51.59	51.23	52.98	54.38	56.67	---	
25	56.93	55.43	54.02	52.65	52.43	51.43	51.45	53.10	54.69	57.25	---	
EOM	56.71	55.14	53.81	52.65	52.43	51.27	51.94	53.25	55.00	57.75	---	
MEAN	57.23	55.89	54.42	53.03	52.51	51.80	51.38	52.72	54.13	56.34	---	

WATER YEAR 1985 -- HIGH 51.02 APR 5 LOW 58.93 AUG 13



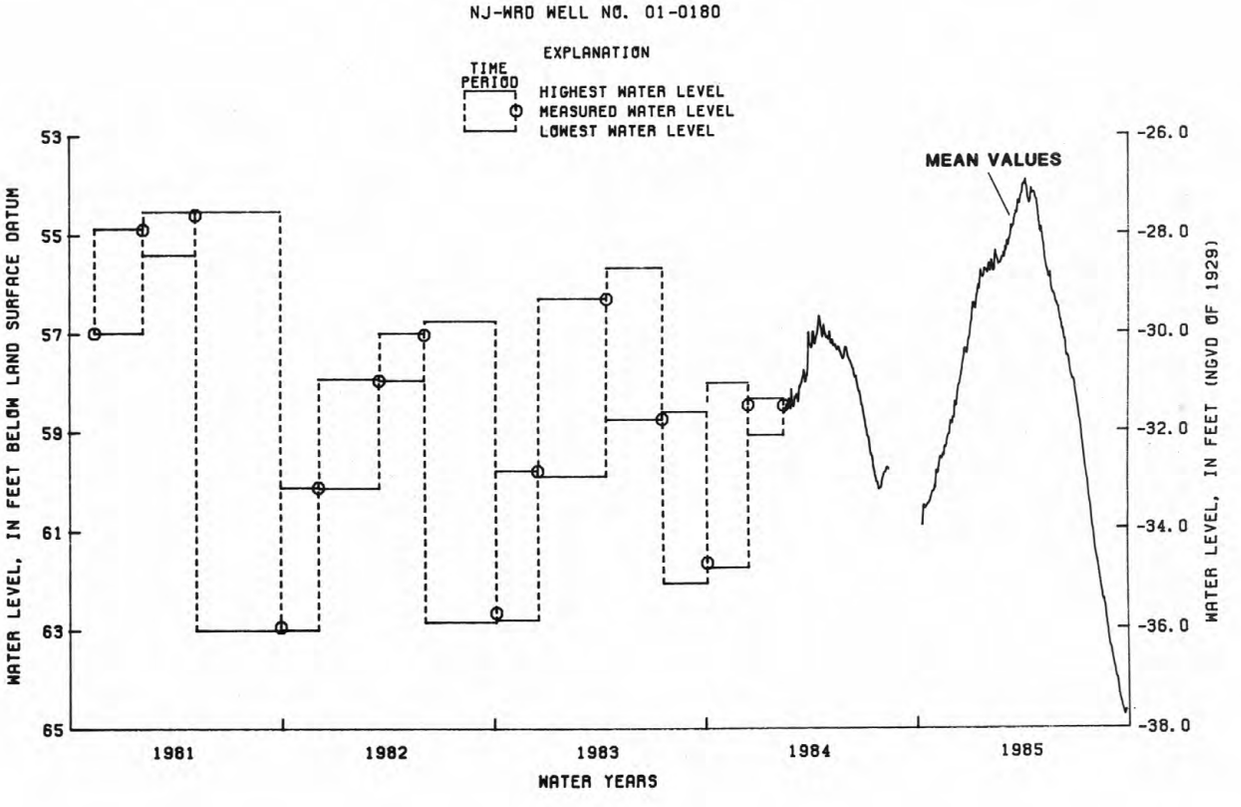
ATLANTIC COUNTY

392754074270101. Local I.D., Oceanville 1 Obs. NJ-WRD Well Number, 01-0180.
LOCATION.--Lat 39°27'54", long 74°27'01", Hydrologic Unit 02040302, at Edwin B. Forsythe National Wildlife Refuge, Brigantine Division, Oceanville.
Owner: U.S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 570 ft, screened 560 to 570 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, April 1977 to February 1984.
DATUM.--Land-surface datum is 27.17 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of bushing, 2.30 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--October 1959 to August 1975, April 1977 to current year. Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.62 ft below land-surface datum, Apr. 13, 1961; lowest, 64.78 ft below land-surface datum, Sept. 22, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	59.81	58.74	56.41	55.71	55.15	53.94	55.11	56.76	58.51	61.48	63.75
10	---	59.67	58.30	56.52	55.76	55.06	54.30	55.58	57.06	58.90	61.80	64.00
15	60.51	59.56	57.96	56.04	55.48	54.84	54.19	55.88	57.48	59.42	62.23	64.42
20	60.51	59.32	57.56	55.82	55.59	54.56	54.16	56.10	57.64	59.87	62.49	64.64
25	60.43	59.09	57.33	55.71	55.49	54.34	54.33	56.25	57.95	60.43	62.97	---
EOM	60.23	58.82	57.05	55.76	55.49	54.18	54.85	56.47	58.16	60.98	63.41	---
MEAN	60.47	59.50	57.91	56.12	55.57	54.77	54.25	55.79	57.38	59.53	62.27	64.20

WATER YEAR 1985 -- MEAN 58.15 HIGH 53.77 APR 5 LOW 64.78 SEP 22



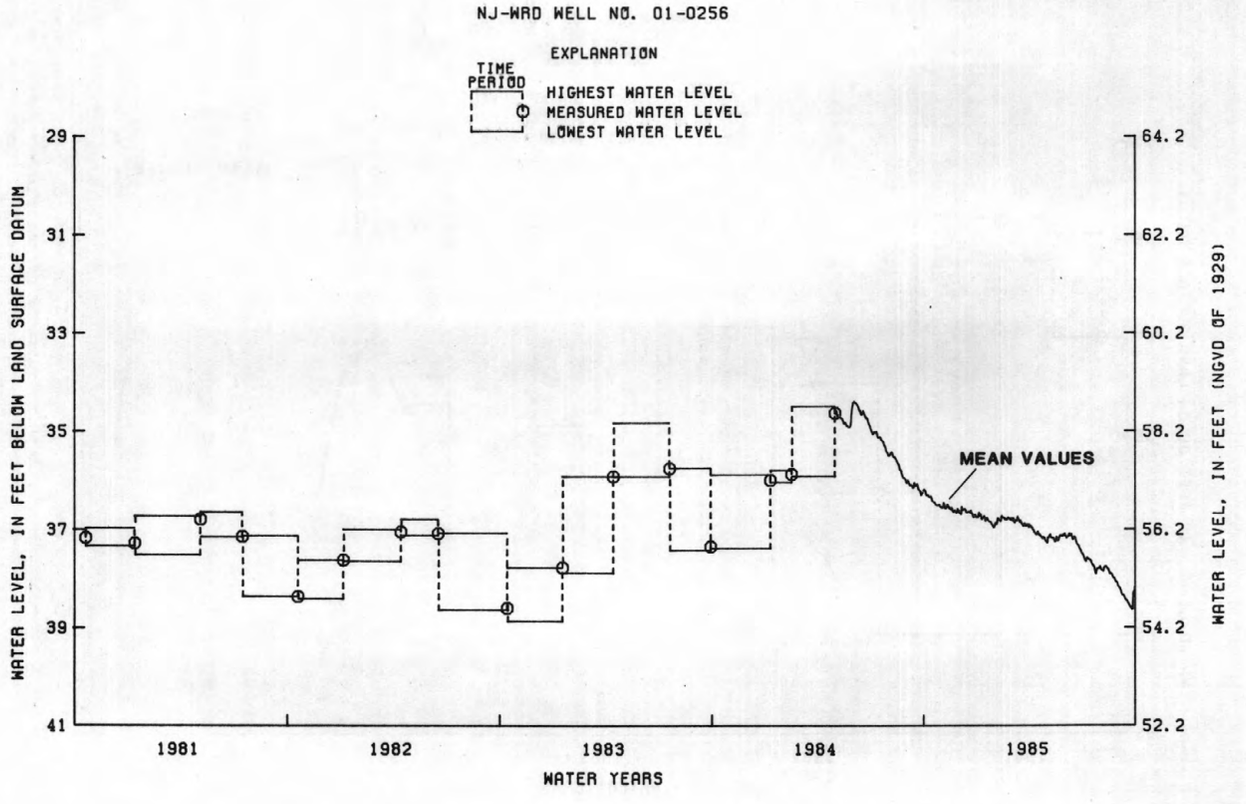
ATLANTIC COUNTY

393333074442401. Local I.D., Scholler 1 Obs. NJ-WRD Well Number, 01-0256.
LOCATION.--Lat 39°33'33", long 74°44'26", Hydrologic Unit 02040302, at Scholler Brothers plant, near intersection of Weymouth and Second Roads, Elwood.
Owner: Scholler Brothers Incorporated.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in, depth 275 ft, screened 254 to 275 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, May 1977 to April 1984.
DATUM.--Land-surface datum is 93.19 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.66 ft above land-surface datum.
PERIOD OF RECORD.--April 1962 to August 1975, May 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.18 ft below land-surface datum, Mar. 20, 1963; lowest, 39.56 ft below land-surface datum, Sept. 13, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.25	36.45	36.69	36.65	36.84	36.76	36.95	37.14	37.14	37.60	37.84	38.23
10	36.33	36.54	36.58	36.80	36.83	36.83	37.07	37.17	37.10	37.58	37.76	38.33
15	36.35	36.58	36.66	36.75	36.75	36.83	37.05	37.26	37.21	37.62	37.81	38.44
20	36.45	36.60	36.65	36.80	36.78	36.88	37.13	37.24	37.21	37.73	37.90	38.54
25	36.52	36.63	36.70	36.85	36.77	36.90	37.15	37.11	37.34	37.91	37.99	38.64
EOM	36.55	36.60	36.76	36.94	36.81	36.96	37.25	37.10	37.48	37.78	38.10	38.17
MEAN	36.39	36.57	36.65	36.79	36.80	36.85	37.08	37.17	37.22	37.69	37.89	38.39

WATER YEAR 1985 -- MEAN 37.12 HIGH 36.14 OCT 1 LOW 38.67 SEP 25



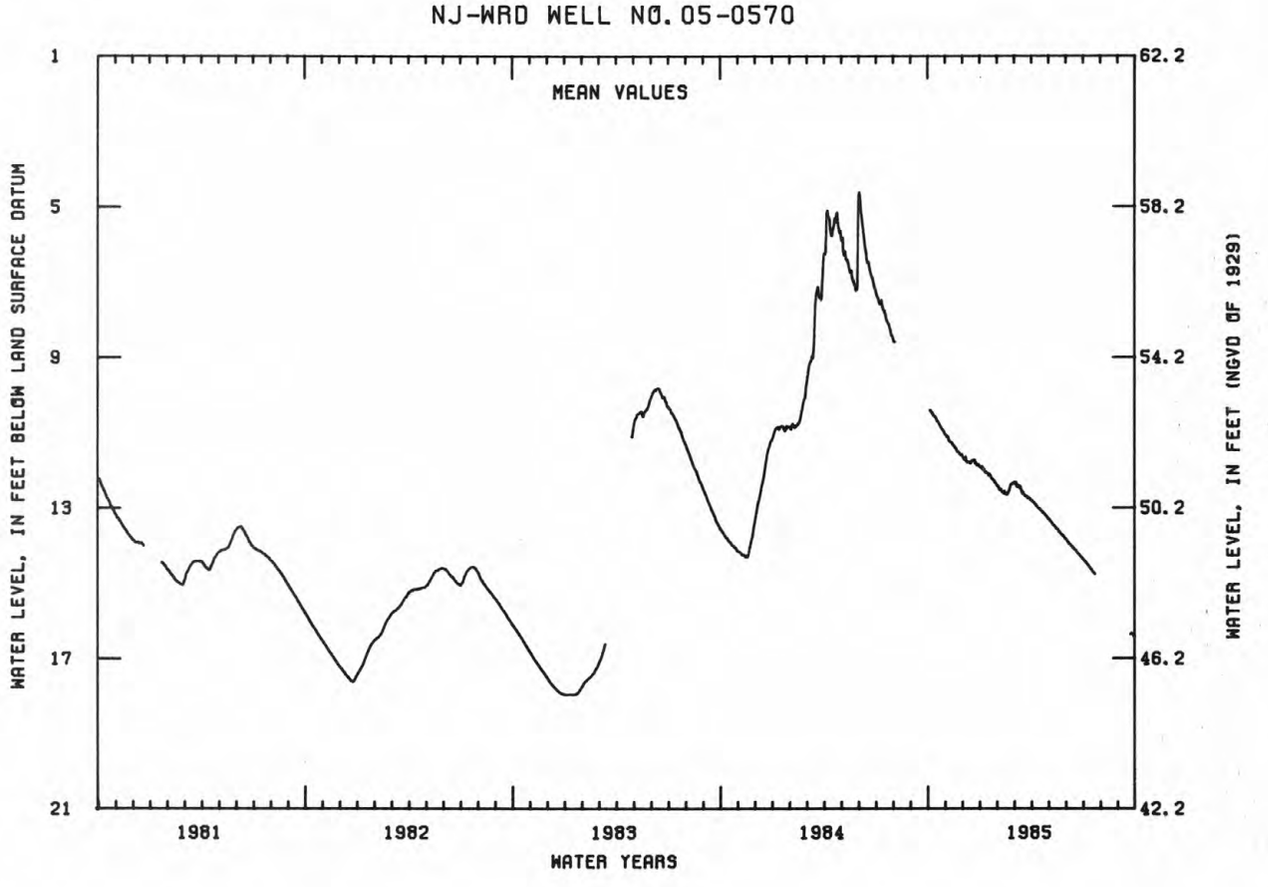
BURLINGTON COUNTY

394106074362501. Local I.D., Mount at Mount Obs. NJ-WRD Well Number, 05-0570.
LOCATION.--Lat 39°41'06", long 74°36'23", Hydrologic Unit 02040301, at Mount in Wharton State Forest.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in, depth 25 ft, open-end cement casing.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 63.24 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of cement casing, 0.60 ft above land-surface datum.
REMARKS.--Missing record from July to Sept. was due to vandalism.
PERIOD OF RECORD--September 1955 to July 1970, October 1977 to current year. Periodic manual measurements, October 1970 to September 1977. Records for September 1955 to September 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.92 ft below land-surface datum, Aug. 26, 1958; lowest, 18.51 ft below land-surface datum, Oct. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.41	11.10	11.73	11.93	12.50	12.32	12.86	13.36	13.92	14.43		---
10	10.53	11.25	11.77	12.07	12.61	12.46	12.97	13.45	14.01	14.53		---
15	10.62	11.35	11.81	12.12	12.64	12.59	13.02	13.55	14.10	14.63		---
20	10.76	11.47	11.75	12.20	12.56	12.66	13.11	13.64	14.18	14.73		---
25	10.91	11.56	11.85	12.28	12.38	12.74	13.18	13.72	14.26	---		16.35
EOM	11.06	11.63	11.92	12.42	12.36	12.80	13.28	13.82	14.35	---		16.46
MEAN	10.72	11.36	11.78	12.14	12.52	12.57	13.04	13.56	14.10	---		---

WATER YEAR 1985 -- HIGH 10.40 OCT 5 LOW 16.47 SEP 30



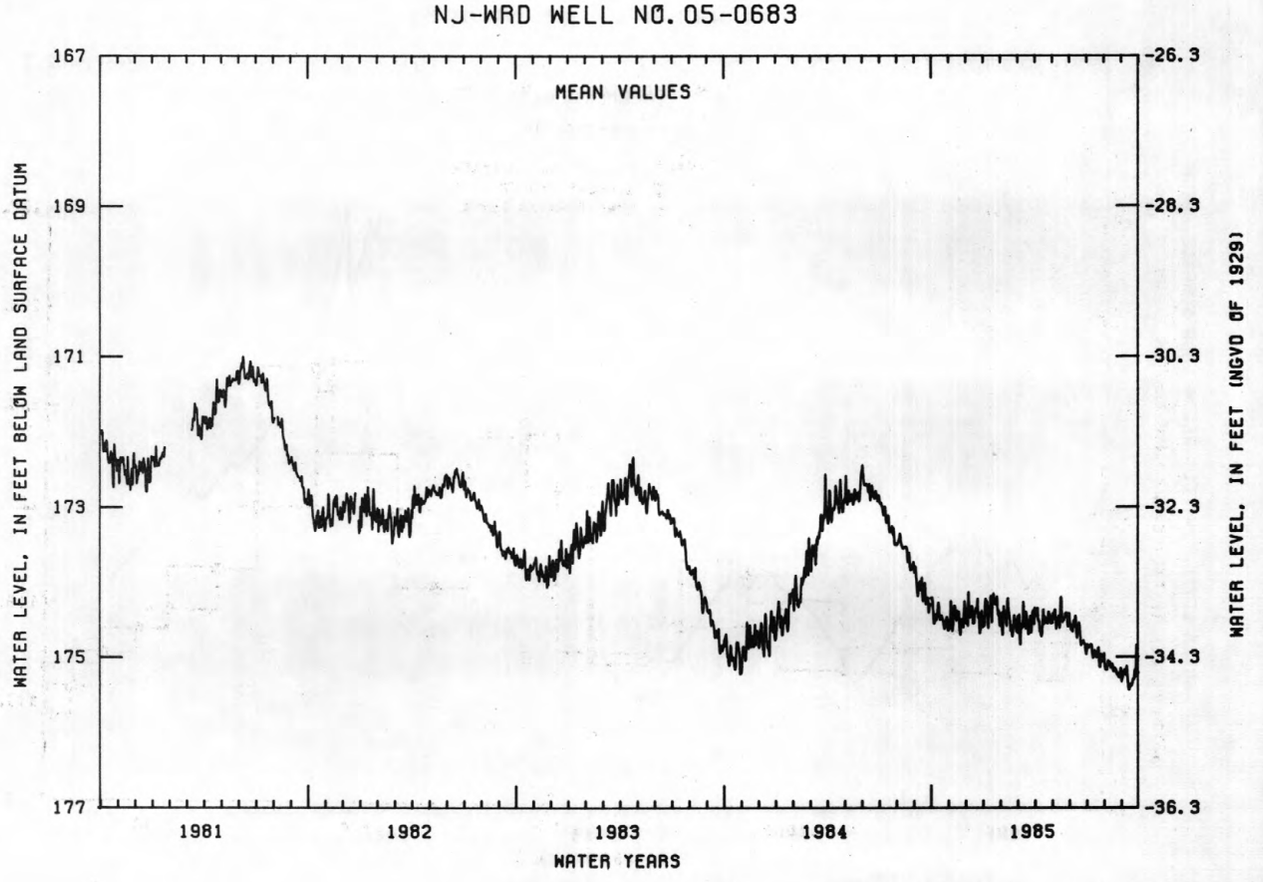
BURLINGTON COUNTY

395122074301701. Local I.D., Butler Place 1 Obs. NJ-WRD Well Number, 05-0683.
LOCATION.--Lat 39°51'22", long 74°30'17", Hydrologic Unit 02040301, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 2,117 ft, screened 2,102 to 2,117 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 140.66 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of coupling, 2.80 ft above land-surface datum.
PERIOD OF RECORD.--October 1964 to August 1975, March 1977 to current year. Records for 1964 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 143.20 ft below land-surface datum, Feb. 25, 1965; lowest, 175.47 ft below land-surface datum, Sept. 14, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	174.41	174.25	174.59	174.22	174.53	174.43	174.38	174.45	174.62	174.88	175.18	175.19
10	174.50	174.45	174.35	174.62	174.56	174.62	174.67	174.55	174.55	174.84	175.08	175.12
15	174.33	174.52	174.55	174.24	174.41	174.54	174.48	174.62	174.75	174.93	175.09	175.42
20	174.45	174.56	174.35	174.25	174.64	174.53	174.53	174.54	174.66	174.94	175.16	175.33
25	174.63	174.53	174.49	174.19	174.56	174.55	174.39	174.41	174.80	175.14	175.21	175.27
EOM	174.65	174.34	174.61	174.53	174.67	174.57	174.56	174.49	174.93	175.00	175.16	175.20
MEAN	174.45	174.49	174.44	174.37	174.51	174.55	174.51	174.47	174.66	174.95	175.15	175.26

WATER YEAR 1985 -- MEAN 174.65 HIGH 174.06 DEC 6 LOW 175.47 SEP 14

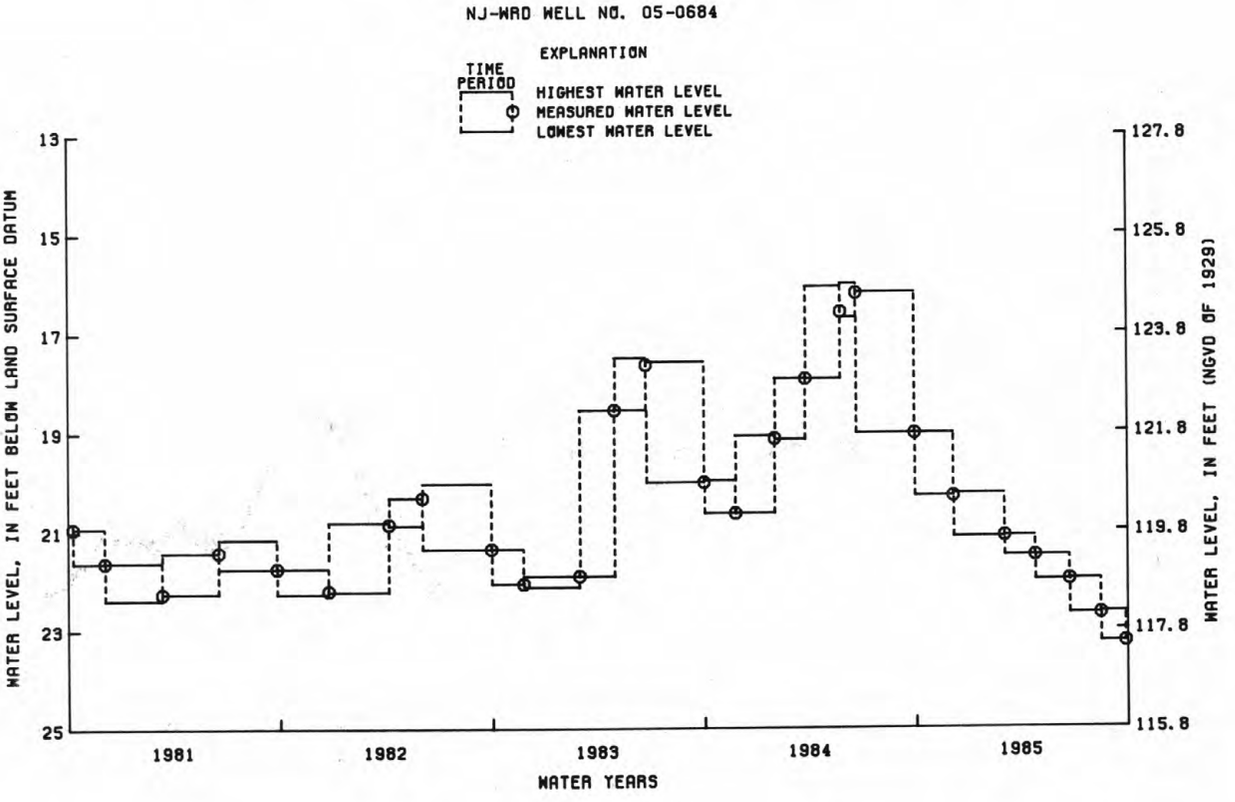


BURLINGTON COUNTY

395122074301702. Local I.D., Butler Place 2 Obs. NJ-WRD Well Number, 05-0684.
LOCATION.--Lat 39°51'22", long 74°30'17", Hydrologic Unit 02040301, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in, depth 170 ft, screened 160 to 170 ft.
INSTRUMENTATION.--Water-level extremes recorder, March 1977 to current year. Water-level recorder, May 1965 to April 1975.
DATUM.--Land-surface datum is 140.82 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.67 ft above land-surface datum.
PERIOD OF RECORD.--May 1965 to April 1975, March 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.14 ft below land-surface datum, Feb. 15, 1973; lowest, 23.26 ft below land-surface datum, between Aug. 14 and Sept. 26, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1984 TO DEC. 4, 1984	19.03	20.30	DEC. 4, 1984	20.30
DEC. 4, 1984 TO MAR. 1, 1985	20.25	21.13	MAR. 1, 1985	21.11
MAR. 1, 1985 TO APR. 23, 1985	21.11	21.51	APR. 23, 1985	21.51
APR. 23, 1985 TO JUNE 21, 1985	21.51	22.01	JUNE 21, 1985	22.00
JUNE 21, 1985 TO AUG. 14, 1985	21.99	22.69	AUG. 14, 1985	22.69
AUG. 14, 1985 TO SEPT. 26, 1985	22.66	23.26	SEPT. 26, 1985	23.26



CAMDEN COUNTY

394215074561701. Local I.D., New Brooklyn 1 Obs. NJ-WRD Well Number, 07-0476.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 1,505 ft, screened 1,485 to 1,495 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, February 1977 to December 1984.
DATUM.--Land-surface datum is 111.13 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of coupling, 1.75 ft above land-surface datum.
PERIOD OF RECORD.--February 1963 to August 1975, February 1977 to current year. Records for 1963 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 120.16 ft below land-surface datum, March 6, 1963; lowest, 165.10 ft below land-surface datum, between July 11 and Sept. 30, 1983.

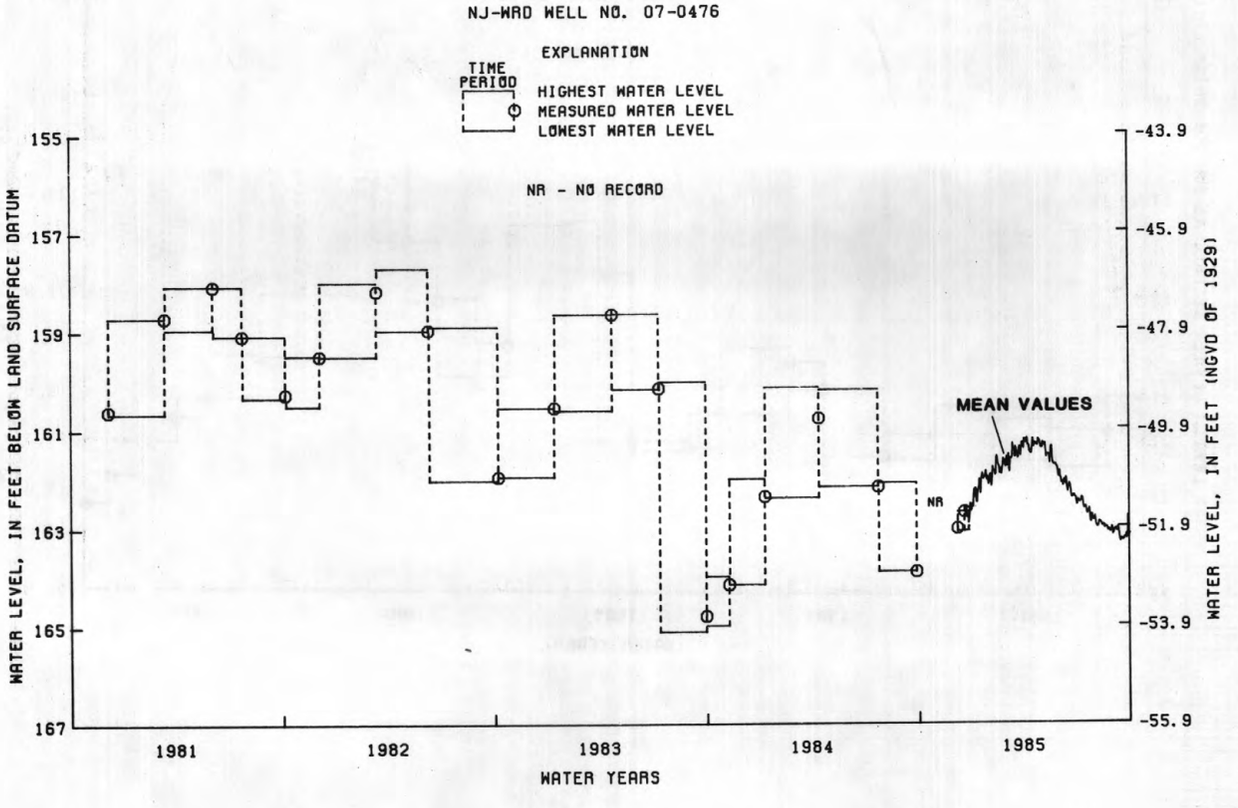
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1984 TO DEC. 7, 1984	---	---	DEC. 7, 1984	163.02
DEC. 7, 1984 TO DEC. 19, 1984	162.68	163.08	DEC. 19, 1984	162.68

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5			---	162.22	161.98	161.51	161.22	161.34	162.08	162.50	163.01	163.05
10			---	162.50	161.94	161.62	161.48	161.54	162.09	162.42	162.92	163.00
15			---	162.08	161.72	161.51	161.29	161.71	162.29	162.58	162.95	163.29
20			162.73	161.99	161.85	161.47	161.33	161.71	162.24	162.68	163.02	163.26
25			162.74	161.85	161.71	161.45	161.21	161.72	162.37	162.91	163.05	163.25
EOM			162.67	162.05	161.78	161.41	161.40	161.89	162.51	162.83	163.03	163.14
MEAN			---	162.16	161.82	161.52	161.33	161.59	162.20	162.64	162.99	163.16

WATER YEAR 1985 -- HIGH 161.11 APR 6 LOW 163.34 SEP 14



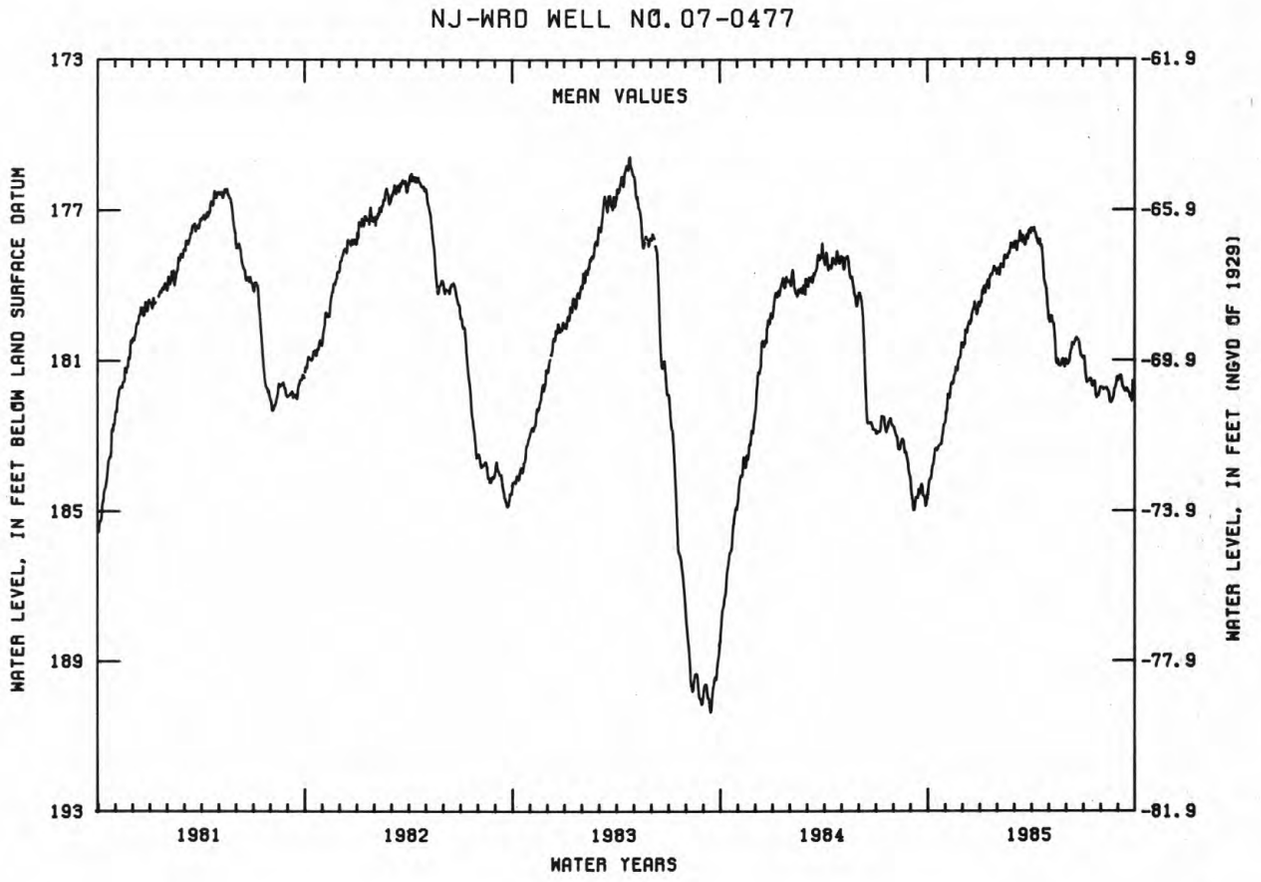
CAMDEN COUNTY

394215074561702. Local I.D., New Brooklyn Park 2 Obs. NJ-WRD Well Number, 07-0477.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 849 ft, screened 829 to 839 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 111.13 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.30 ft above land-surface datum.
PERIOD OF RECORD.--January 1963 to August 1975, March 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.54 ft below land-surface datum, Mar. 6, 1963; lowest, 190.37 ft below land-surface datum, Sept. 14, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	184.13	181.89	180.57	179.12	178.59	177.82	177.50	179.91	181.08	181.21	181.75	181.39
10	183.77	181.74	180.11	179.20	178.53	177.85	177.76	180.00	180.72	181.55	181.75	181.73
15	183.32	181.58	179.97	178.89	178.29	177.77	177.80	181.03	180.60	181.49	181.84	181.76
20	183.26	181.23	179.61	178.74	178.14	177.82	178.03	181.15	180.39	181.55	182.12	181.86
25	183.19	180.94	179.64	178.49	177.94	177.68	178.92	180.99	180.64	182.00	181.81	182.09
EOM	182.65	180.56	179.57	178.66	178.01	177.63	179.55	181.07	180.93	181.76	181.44	181.70
MEAN	183.49	181.48	179.94	178.90	178.29	177.78	178.12	180.60	180.72	181.56	181.81	181.73

WATER YEAR 1985 -- MEAN 180.37 HIGH 177.39 APR 6 LOW 184.61 OCT 1



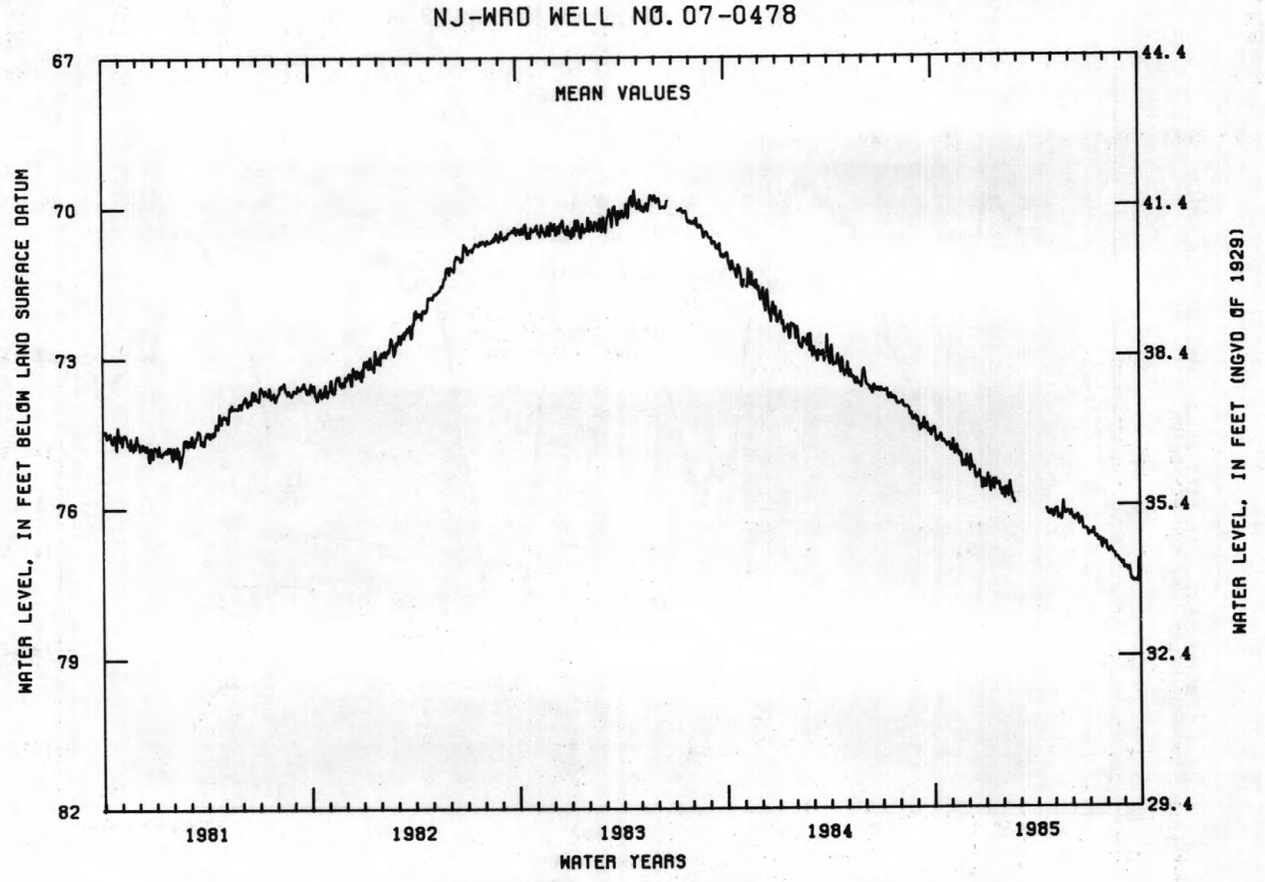
CAMDEN COUNTY

394215074561703. Local I.D., New Brooklyn Park 3 Obs. NJ-WRD Well Number, 07-0478.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 540 ft, screened 520 to 530 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 111.45 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch coupling, 2.10 ft above land-surface datum.
REMARKS.--Missing record from Feb. to Apr. was due to recorder malfunction.
PERIOD OF RECORD.--December 1962 to August 1975, March 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.53 ft below land-surface datum, Dec. 18, 1962; lowest, 77.56 ft below land-surface datum, Sept. 25-26, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	74.55	74.66	75.30	75.36	75.79		---	76.08	76.28	76.56	76.92	77.22
10	74.66	74.88	75.23	75.72	75.79		---	76.24	76.21	76.46	76.88	77.23
15	74.57	74.99	75.43	75.46	75.68		---	76.29	76.38	76.61	76.95	77.50
20	74.68	75.05	75.34	75.52	75.88		76.12	76.14	76.31	76.69	77.03	77.52
25	74.81	75.11	75.47	75.53	---		76.10	76.10	76.46	76.85	77.10	77.53
EOM	74.84	75.05	75.63	75.77	---		76.23	76.17	76.55	76.78	77.12	77.34
MEAN	74.66	74.97	75.34	75.57	---		---	76.14	76.32	76.64	76.99	77.37

WATER YEAR 1985 -- HIGH 74.39 OCT 3 LOW 77.56 SEP 25



CAMDEN COUNTY

394440074593101. Local I.D., Winslow WC 5 Obs. NJ-WRD Well Number, 07-0503.
LOCATION.--Lat 39°44'40", long 74°59'31", Hydrologic Unit 02040302, about 1,000 ft east of intersection of Cross Keys-Berlin and Erial-Williamstown Roads, Winslow Township.
Owner: Winslow Water Company.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 76 ft, screened 71 to 76 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, November 1977 to December 1984.
DATUM.--Land-surface datum is 173.26 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.00 ft above land surface datum.
PERIOD OF RECORD.--December 1972 to current year. Records for 1972 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.78 ft below land-surface datum, May 20-21, 1973; lowest, 38.35 ft below land-surface datum, between June 3 and Oct. 6, 1981.

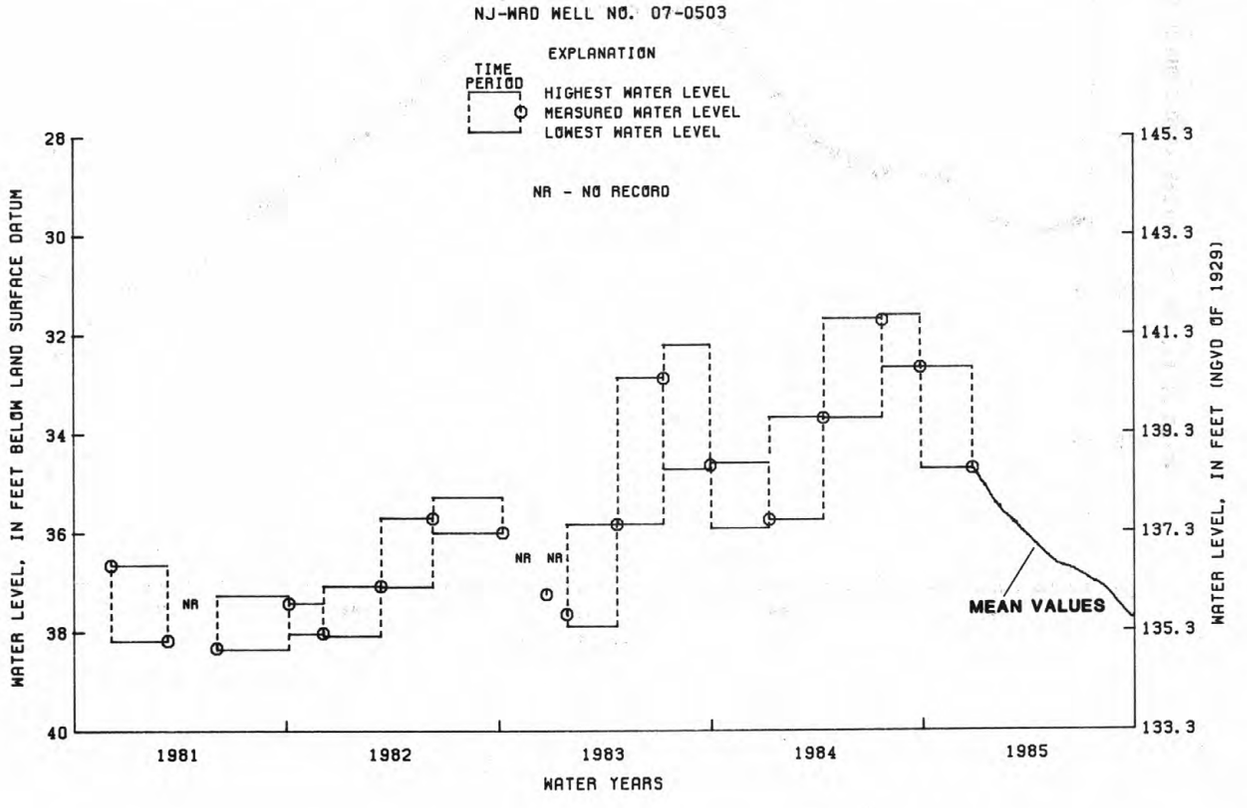
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1984 TO DEC. 26, 1984	34.20	34.72	DEC. 26, 1984	34.71

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5			---	34.88	35.40	35.75	36.13	36.48	36.71	36.88	37.10	37.48
10			---	34.98	35.52	35.84	36.21	36.54	36.73	36.91	37.14	37.54
15			---	35.07	35.58	35.91	36.24	36.60	36.76	36.95	37.19	37.62
20			---	35.14	35.64	35.96	36.32	36.65	36.78	36.99	37.26	37.68
25			---	35.24	35.70	36.03	36.37	36.66	36.81	37.02	37.32	37.75
EOM			34.80	35.35	35.73	36.07	36.44	36.67	36.85	37.04	37.43	37.67
MEAN			---	35.08	35.56	35.90	36.27	36.59	36.76	36.96	37.22	37.61

WATER YEAR 1985 -- HIGH 34.20 BETWEEN SEP 27 AND DEC 26, 1984 LOW 37.85 SEP 27



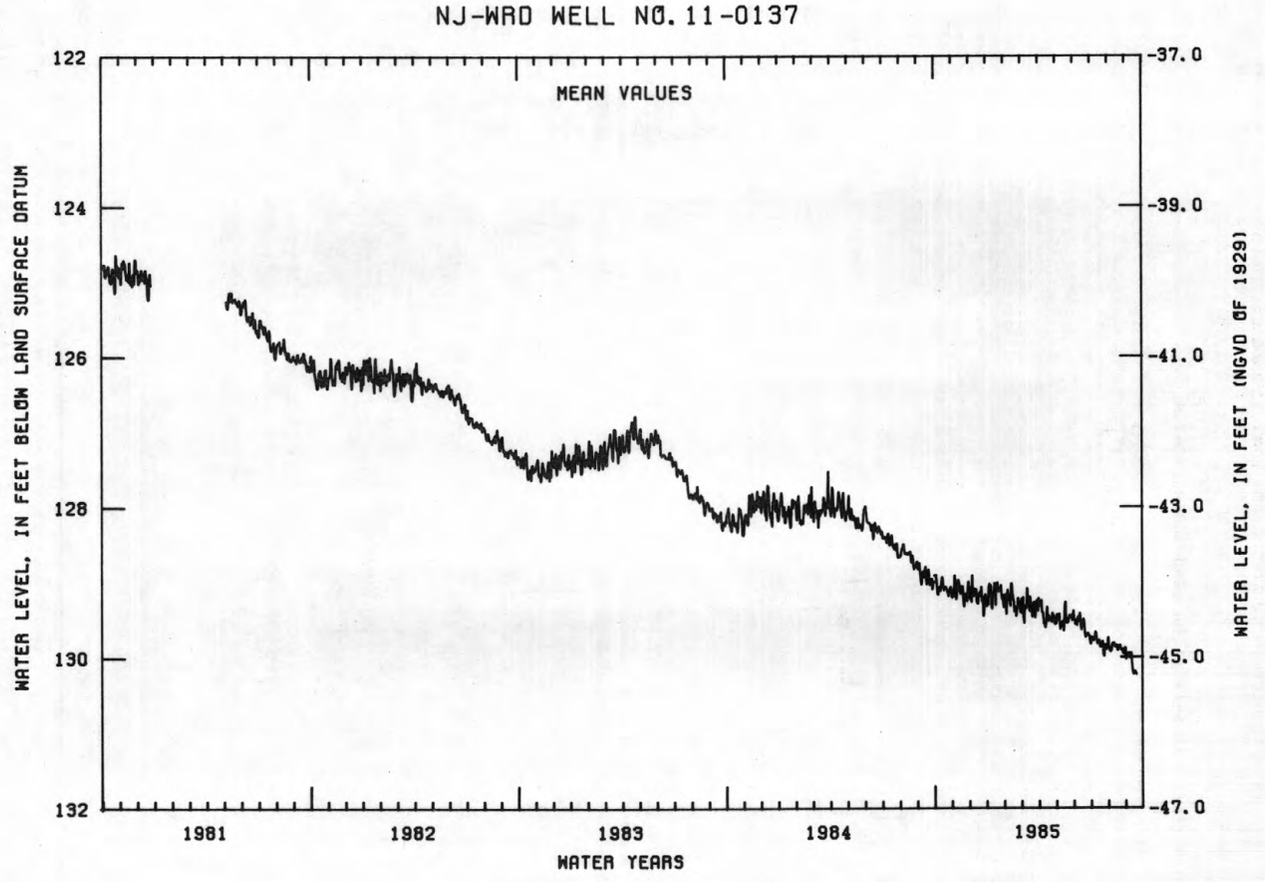
CUMBERLAND COUNTY

392512074521206. Local I.D., Ragovin 2100 Obs. NJ-WRD Well Number 11-0137.
LOCATION.--Lat 39°25'12", long 74°52'12", Hydrologic Unit 02040302, in wooded area off Harriet Avenue, 1.5 mi southeast of Milmay.
Owner: Sam DeRosa.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 5 in, depth 2,093 ft, screened 2,083 to 2,093 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Altitude of land-surface datum is 85 ft, by altimeter.
Measuring point: Top edge of recorder shelf, 2.40 ft above land-surface datum.
REMARKS.--This well is screened in a saline zone of the aquifer system (Luzier, 1980,p. 8-12). An equivalent freshwater head is obtained by multiplying the column of water in the well by the ratio of density of water in the well to the density of freshwater. In 1974, the density of water was 1.011 grams per milliliter at 20 deg. C and a plus 17 foot correction was needed to obtain the equivalent freshwater head.
PERIOD OF RECORD.--October 1974 to April 1975, February 1977 to current year. Records for 1974 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 115.82 ft below land-surface datum, Apr. 3, 1975; lowest, 130.27 ft below land-surface datum, Sept. 14, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	129.06	128.91	129.27	129.02	129.27	129.20	129.28	129.49	129.53	129.78	129.93	129.95
10	129.11	129.08	129.10	129.36	129.30	129.36	129.56	129.59	129.50	129.68	129.82	129.94
15	128.98	129.16	129.28	129.08	129.19	129.30	129.42	129.65	129.64	129.78	129.84	130.22
20	129.06	129.19	129.16	129.09	129.37	129.32	129.50	129.55	129.59	129.83	129.86	---
25	129.19	129.19	129.27	129.04	129.31	129.35	129.41	129.44	129.70	129.99	129.89	---
EOM	129.20	129.06	129.33	129.27	129.41	129.39	129.57	129.44	129.80	129.84	129.89	---
MEAN	129.07	129.13	129.19	129.16	129.27	129.33	129.45	129.50	129.59	129.82	129.88	---

WATER YEAR 1985 -- MEAN 129.45 HIGH 128.85 DEC 6 LOW 130.27 SEP 14

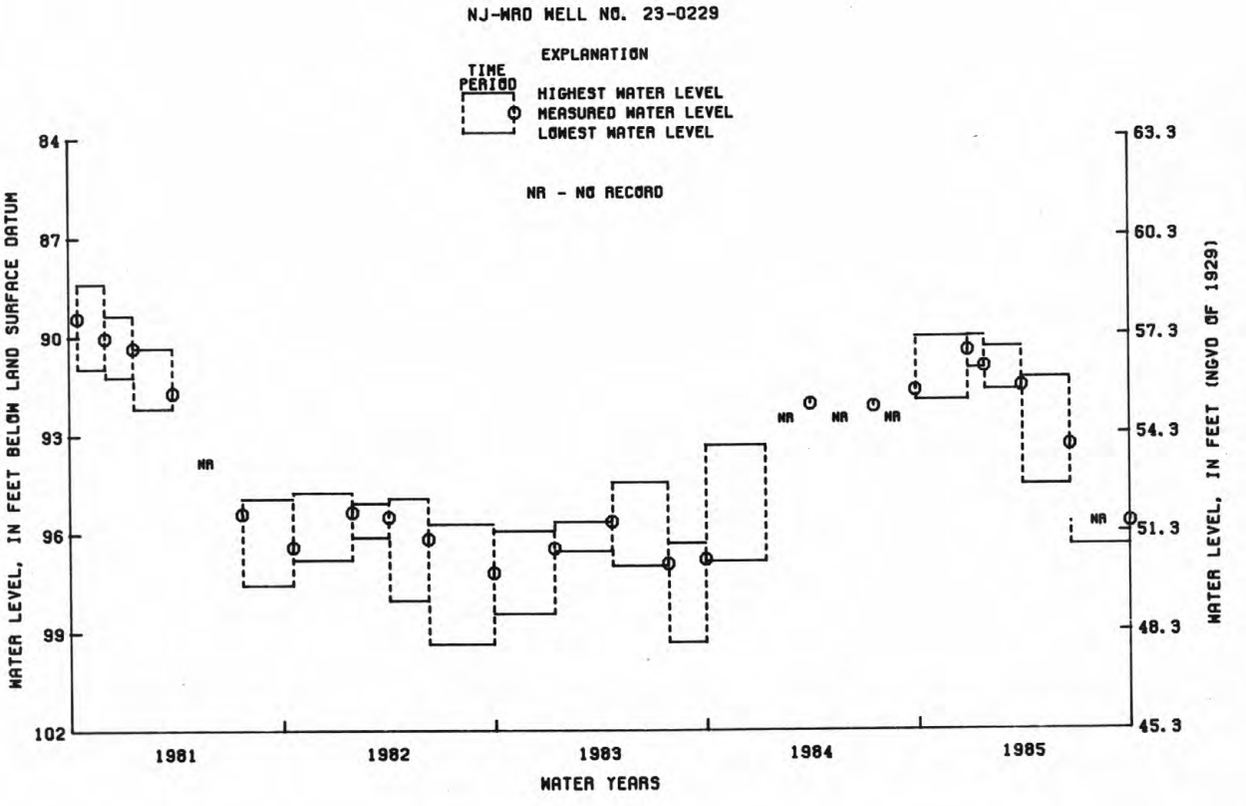


MIDDLESEX COUNTY

402015074275702. Local I.D., Forsgate 4 Obs.. NJ-WRD Well Number, 23-0229.
LOCATION.--Lat 40°20'15", long 74°27'57", Hydrologic Unit 02030105, on Hanover Lane at Rossmoor, Monroe Township.
Owner: Monroe Township Municipal Utilities Authority.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 330 ft screened 319 to 330 ft.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, April 1965 to August 1967, August 1968 to August 1975.
DATUM.--Land-surface datum is 147.34 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.50 ft below land-surface datum.
PERIOD OF RECORD.--April 1965 to August 1967, August 1968 to August 1975, January 1977 to current year. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 80.09 ft below land-surface datum, July 16, 1973; lowest, 99.36 ft below land-surface datum, between June 8 and Sept. 29, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1984 TO DEC. 27, 1984	90.05	91.98	DEC. 27, 1984	90.48
DEC. 27, 1984 TO JAN. 24, 1985	90.04	91.02	JAN. 24, 1985	90.97
JAN. 24, 1985 TO MAR. 28, 1985	90.37	91.68	MAR. 28, 1985	91.56
MAR. 28, 1985 TO JUNE 19, 1985	91.31	94.56	JUNE 19, 1985	93.35
JUNE 19, 1985 TO SEPT. 30, 1985	---	96.40	SEPT. 30, 1985	95.70

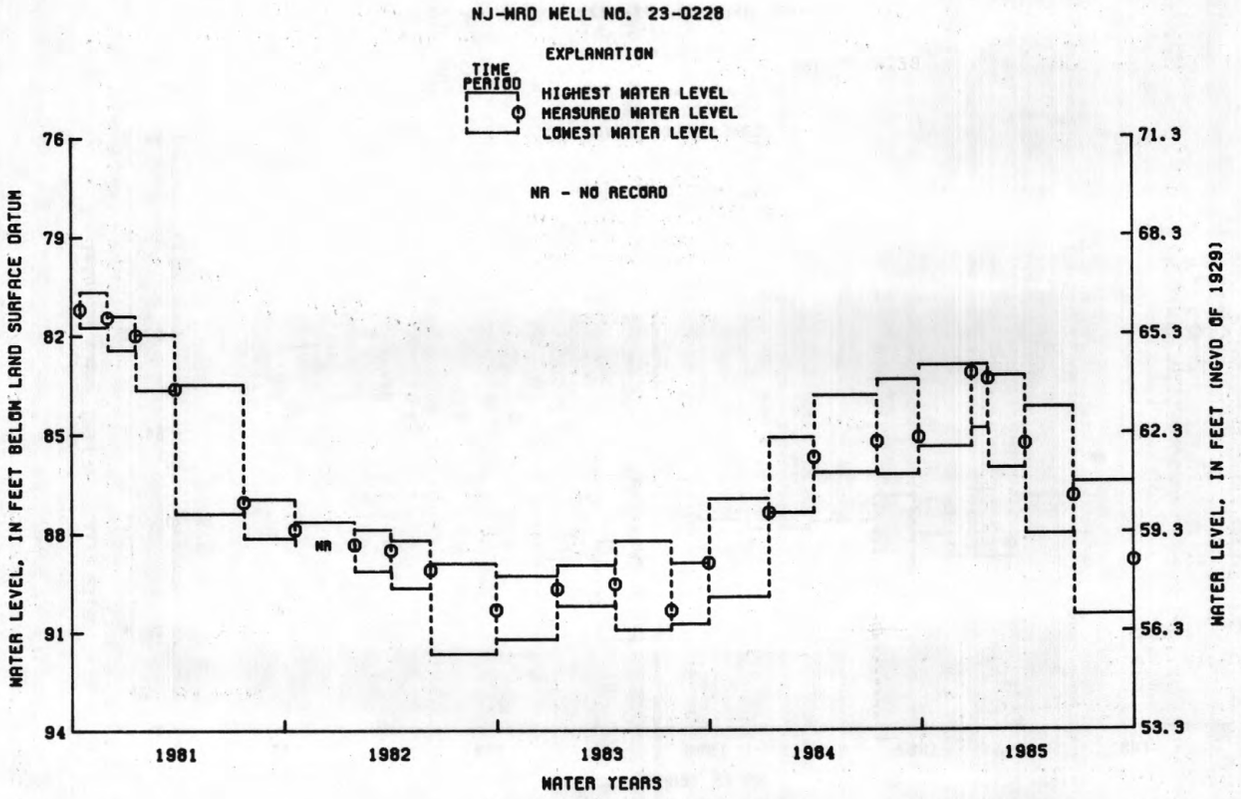


MIDDLESEX COUNTY

402015074275701. Local I.D., Forsgate 3 Obs. NJ-WRD Well Number, 23-0228.
LOCATION.--Lat 40°20'15", long 74°27'57", Hydrologic Unit 02030105, on Hanover Lane at Rossmoor, Monroe Township.
Owner: Monroe Township Municipal Utilities Authority.
AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 138 ft, screened 128 to 138 ft.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, October 1961 to August 1967, August 1968 to August 1975.
DATUM.--Land-surface datum is 147.34 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.40 ft below land-surface datum.
PERIOD OF RECORD.--October 1961 to August 1967, August 1968 to August 1975, January 1977 to current year. Records for 1961 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 70.32 ft below land-surface datum, May 6, 1962; lowest, 91.66 ft below land-surface datum, between June 8 and Sept. 29, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL / LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1984 TO DEC. 27, 1984	82.93 / 85.41	DEC. 27, 1984	83.17
DEC. 27, 1984 TO JAN. 24, 1985	82.92 / 84.85	JAN. 24, 1985	83.36
JAN. 24, 1985 TO MAR. 28, 1985	83.25 / 86.05	MAR. 28, 1985	85.31
MAR. 28, 1985 TO JUNE 19, 1985	84.20 / 88.05	JUNE 19, 1985	86.90
JUNE 19, 1985 TO SEPT. 30, 1985	86.46 / 90.50	SEPT. 30, 1985	88.86



MIDDLESEX COUNTY

402553074271701. Local I.D., Robert Fischer Obs. NJ-WRD Well Number, 23-0070.
LOCATION.--Lat 40°25'55", long 74°27'19", Hydrologic Unit 02030105, about 1,800 ft southeast of Weber School on Hardenburg Lane, East Brunswick Township.
Owner: Robert D. Fischer.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 4.5 ft, depth 21 ft, cased to 17 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, January 1977 to April 1985.
DATUM.--Land-surface datum is 73.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of angle iron at bottom of shelter doors, 1.70 ft above land-surface datum.
REMARKS.--Well deepened October 29, 1965 from 17 to 21 ft.
PERIOD OF RECORD.--June 1936 to April 1975, January 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.88 ft below land-surface datum, Apr. 26-27, 1939; lowest, 19.11 ft below land-surface datum, between July 24 and Oct. 6, 1981; well was dry many times, 1963-1965 before deepening.

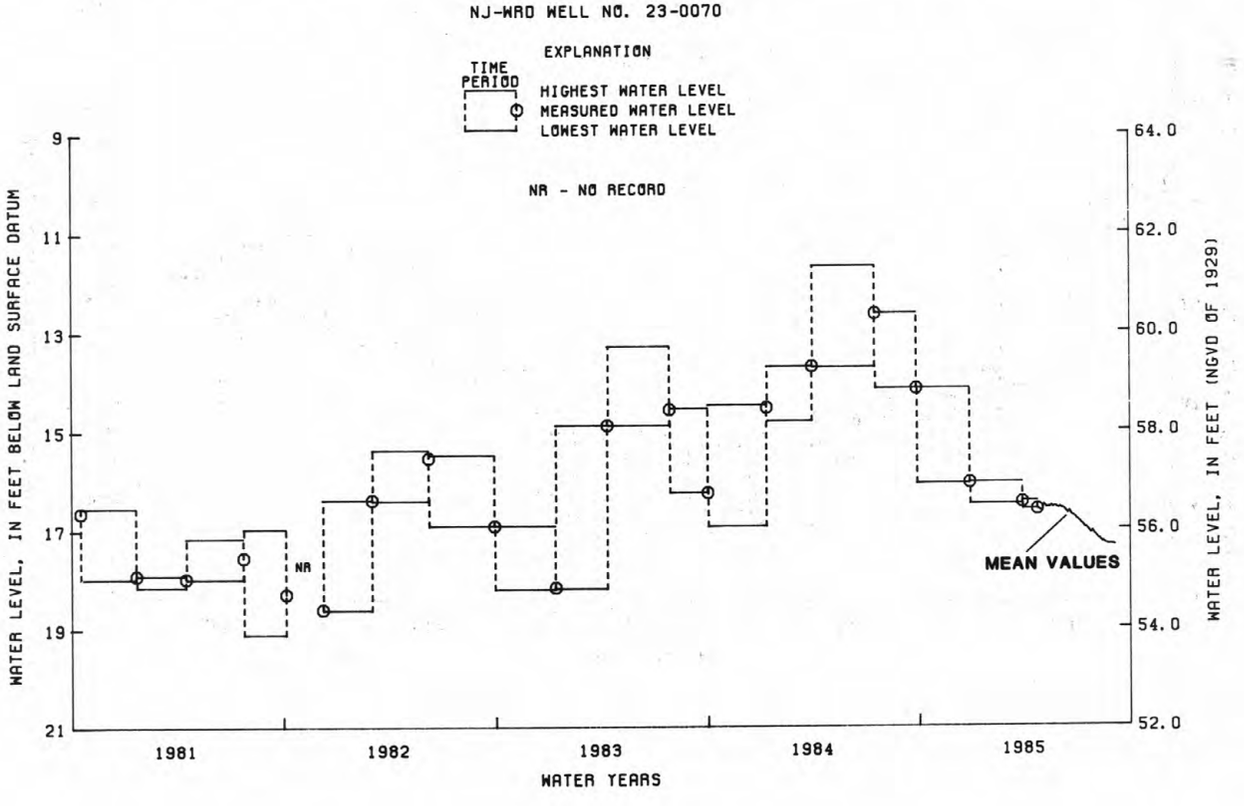
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL		
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1984 TO DEC. 28, 1984	14.14	16.07	DEC. 28, 1984	16.05
DEC. 28, 1984 TO MAR. 28, 1985	16.05	16.49	MAR. 28, 1985	16.45
MAR. 28, 1985 TO APR. 23, 1985	16.43	16.60	APR. 23, 1985	16.60

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5							---	16.51	16.60	16.86	17.19	---
10							---	16.57	16.63	16.92	17.23	---
15							---	16.58	16.70	16.99	17.26	---
20							---	16.57	16.70	17.03	17.31	---
25							16.59	16.55	16.75	17.10	17.33	---
EOM							16.64	16.59	16.81	17.12	17.33	---
MEAN							---	16.57	16.67	16.98	17.27	---

WATER YEAR 1985 -- HIGH 14.14 BETWEEN SEP 27 AND DEC 28, 1984 LOW 17.34 SEP 3

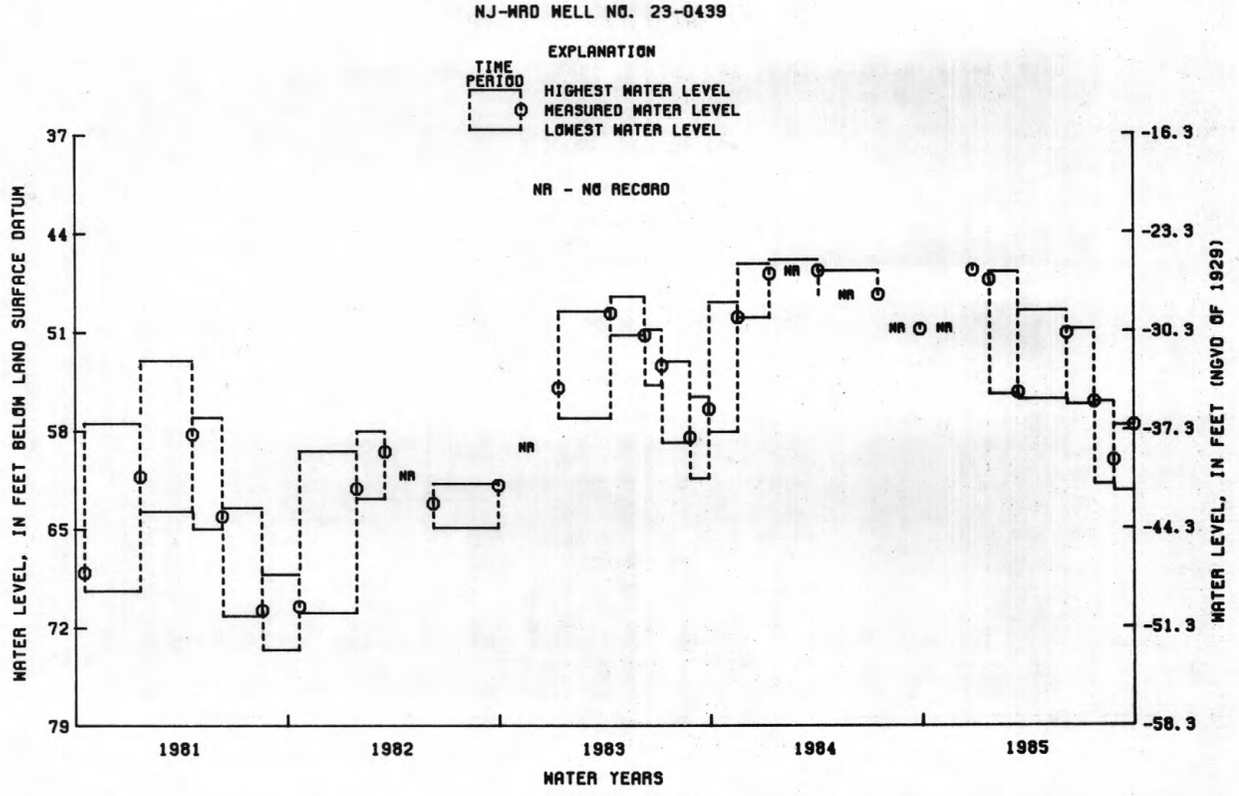


MIDDLESEX COUNTY

402633074220001. Local I.D., South River 2 Obs. NJ-WRD Well Number, 23-0439.
LOCATION.--Lat 40°26'33", long 74°22'00", Hydrologic Unit 02030105, at the corner of Whitehead Avenue and Anne Street, South River.
Owner: South River Utilities.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 126 ft, screened 121 to 126 ft.
INSTRUMENTATION.--Water-level extremes recorder, January 1977 to current year. Water-level recorder, January 1968 to August 1975.
DATUM.--Land-surface datum is 20.69 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.55 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--January 1968 to August 1975, January 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.37 ft below land-surface datum, Jan. 30, 1968; lowest, 73.64 ft below land-surface datum, between Aug. 25 and Oct. 16, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1984 TO DEC. 27, 1984	---	---	DEC. 27, 1984	46.64
DEC. 27, 1984 TO JAN. 24, 1985	---	---	JAN. 24, 1985	47.32
JAN. 24, 1985 TO MAR. 14, 1985	46.74	55.45	MAR. 14, 1985	55.33
MAR. 14, 1985 TO JUNE 6, 1985	49.50	55.81	JUNE 6, 1985	51.13
JUNE 6, 1985 TO JULY 23, 1985	50.81	56.20	JULY 23, 1985	56.01
JULY 23, 1985 TO AUG. 26, 1985	56.01	61.85	AUG. 26, 1985	60.14
AUG. 26, 1985 TO SEPT. 30, 1985	57.65	62.34	SEPT. 30, 1985	57.65



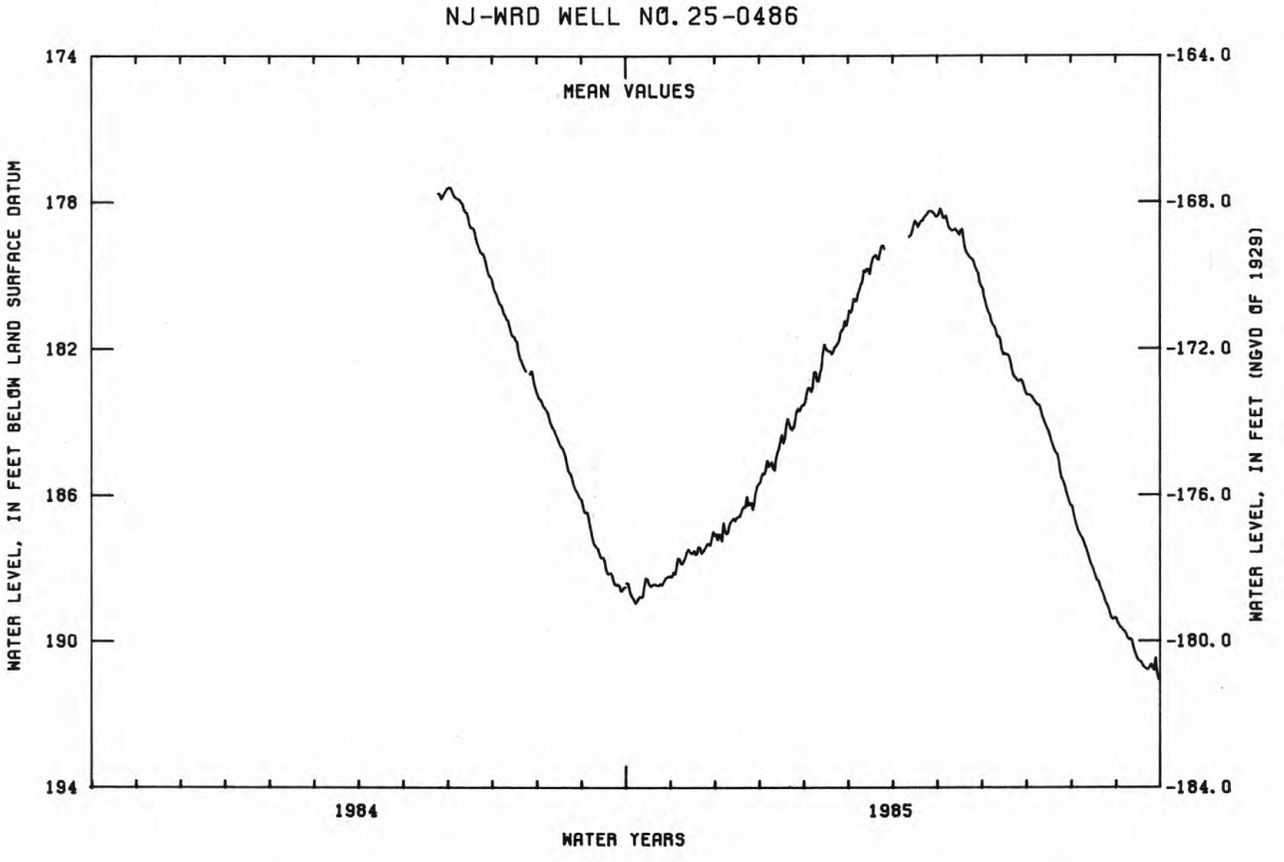
MONMOUTH COUNTY

400711074020201. Local I.D., DOE - Sea Girt Obs. NJ-WRD Well Number, 25-0486.
LOCATION.--Lat 40°07'11", long 74°02'02", Hydrologic Unit 02030104, at the National Guard Camp, Sea Girt.
Owner: State of New Jersey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 988 ft, perforated casing 604 to 614 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Altitude of land-surface datum is 10 ft, from topographic map
Measuring point: Top edge of recorder shelf, 3.20 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--May 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 176.58 ft below land-surface datum, May 25, 1984; lowest, 191.16 ft below land-surface datum, Sept. 29, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	188.81	187.71	187.26	185.04	183.06	180.62	---	178.44	181.01	183.34	186.95	189.72
10	188.77	187.70	186.83	185.32	182.67	180.24	---	178.75	181.51	183.58	187.40	189.94
15	188.30	187.58	186.60	184.35	182.06	179.83	178.64	178.84	182.16	184.17	187.98	190.52
20	188.44	187.44	186.31	184.06	181.95	179.44	178.51	179.26	182.37	184.77	188.49	190.74
25	188.47	187.32	186.20	183.71	181.48	179.18	178.26	179.57	182.88	185.54	189.02	190.76
EOM	188.23	187.11	185.65	183.42	181.37	---	178.40	180.31	183.16	186.28	189.36	191.04
MEAN	188.52	187.59	186.54	184.48	182.24	180.04	---	179.04	181.97	184.44	188.05	190.34

WATER YEAR 1985 -- MEAN 184.31 HIGH 177.99 MAY 3 LOW 191.16 SEP 29

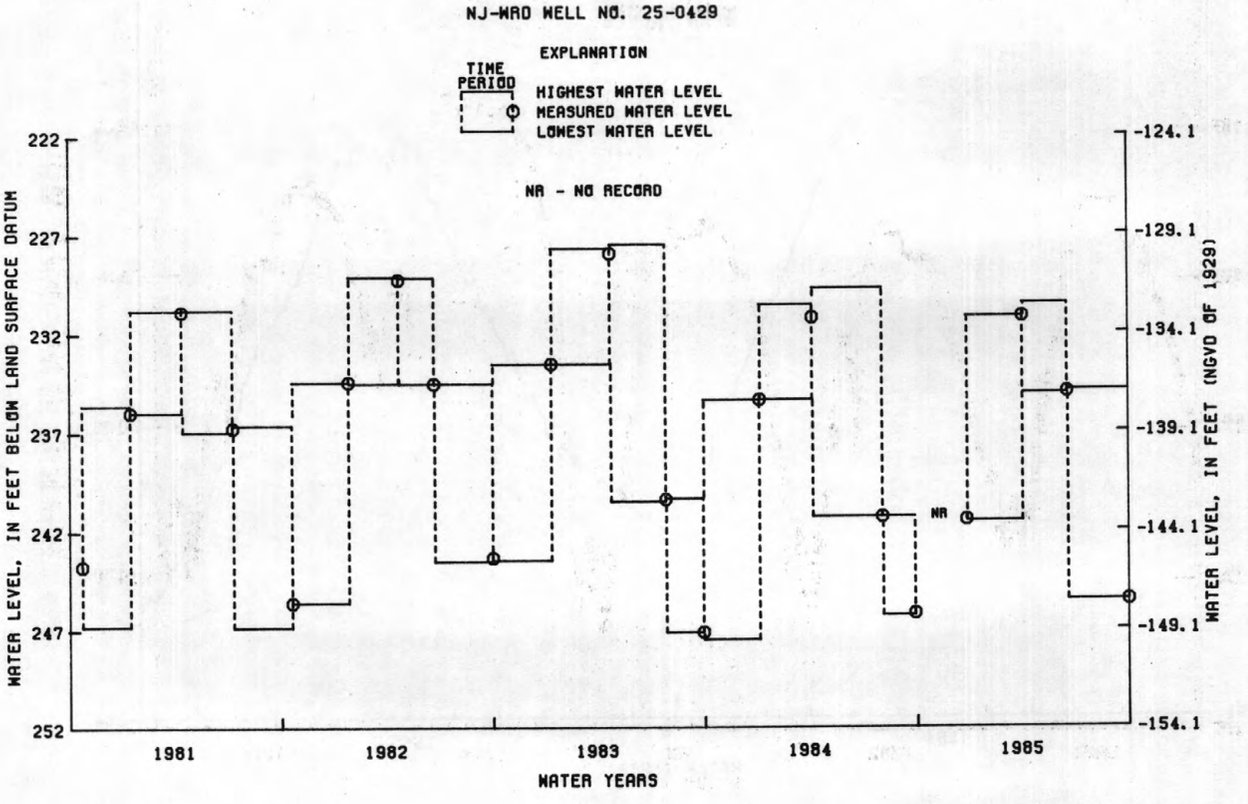


MONMOUTH COUNTY

400832074082101. Local I.D., Allaire State Park C Obs. NJ-WRD Well Number, 25-0429.
LOCATION.--Lat 40°08'34", long 74°08'34", Hydrologic Unit 02040301, about 1.3 mi southeast of Lower Squankum, in Allaire State Park, Wall Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 715 ft, screened 623 to 633 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, January 1964 to July 1975.
DATUM.--Land-surface datum is 97.93 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.64 ft above land-surface datum.
PERIOD OF RECORD.--January 1964 to July 1975, February 1977 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 141.05 ft below land-surface datum, Apr. 8, 1964; lowest, 247.52 ft below land-surface datum, between Sept. 29, 1983 and Jan. 4, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1984 TO DEC. 26, 1984	---	---	DEC. 26, 1984	241.46
DEC. 26, 1984 TO APR. 1, 1985	231.19	241.53	APR. 1, 1985	231.19
APR. 1, 1985 TO JUNE 17, 1985	230.52	235.08	JUNE 17, 1985	235.02
JUNE 17, 1985 TO SEPT. 30, 1985	234.91	245.53	SEPT. 30, 1985	245.53



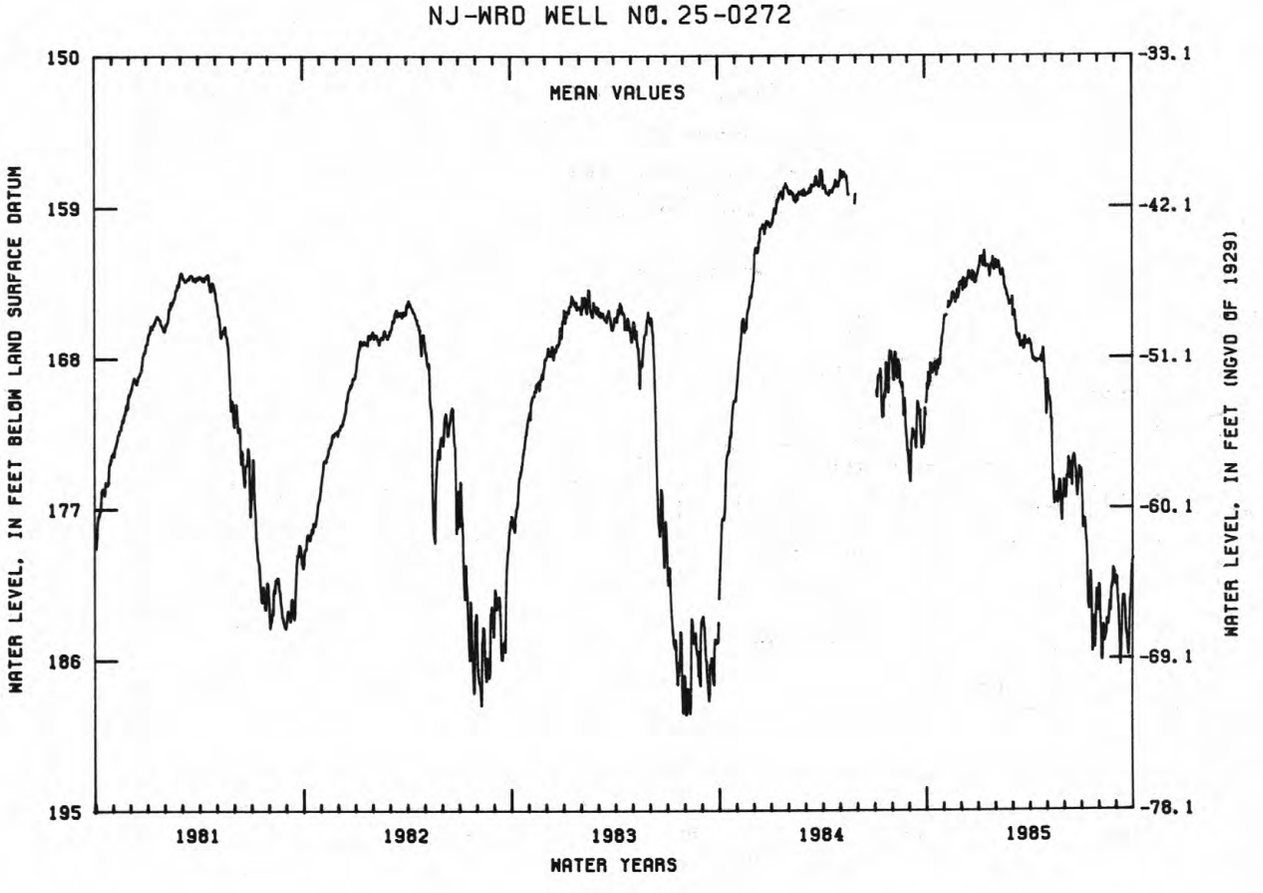
MONMOUTH COUNTY

402208074145201. Local I.D., Marlboro 1 Obs. NJ-WRD Well Number, 25-0272.
LOCATION.--Lat 40°22'08", long 74°14'52", Hydrologic Unit 02030104, on the west side of New Jersey Route 79, 0.9 mi south of Morganville.
Owner: Marlboro Township Municipal Utilities Authority.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 680 ft, screened 670 to 680 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 116.93 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.50 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--January 1973 to July 1975, March 1977 to current year. Records for 1973 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 144.06 ft below land-surface datum, Apr. 4, 1973; lowest, 190.49 ft below land-surface datum, July 29, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	168.88	165.51	164.02	161.97	162.37	165.18	167.69	170.45	176.04	177.82	184.76	183.67
10	168.82	164.63	163.79	162.54	163.11	166.66	168.23	171.62	174.42	179.05	184.43	184.41
15	168.33	164.64	162.91	162.43	163.19	167.05	168.11	176.75	175.65	183.03	183.62	182.73
20	168.75	164.37	163.25	162.65	164.10	167.03	168.15	176.38	174.15	184.12	182.54	185.00
25	168.45	163.94	163.04	162.37	164.87	167.02	167.40	175.42	175.80	185.36	181.13	182.41
EOM	166.45	163.57	162.99	162.54	164.65	167.16	170.27	176.02	174.63	182.82	181.06	179.96
MEAN	168.57	164.66	163.36	162.44	163.47	166.57	168.08	174.37	174.94	181.16	183.07	183.26

WATER YEAR 1985 -- MEAN 171.16 HIGH 161.14 JAN 13 LOW 187.01 AUG 6

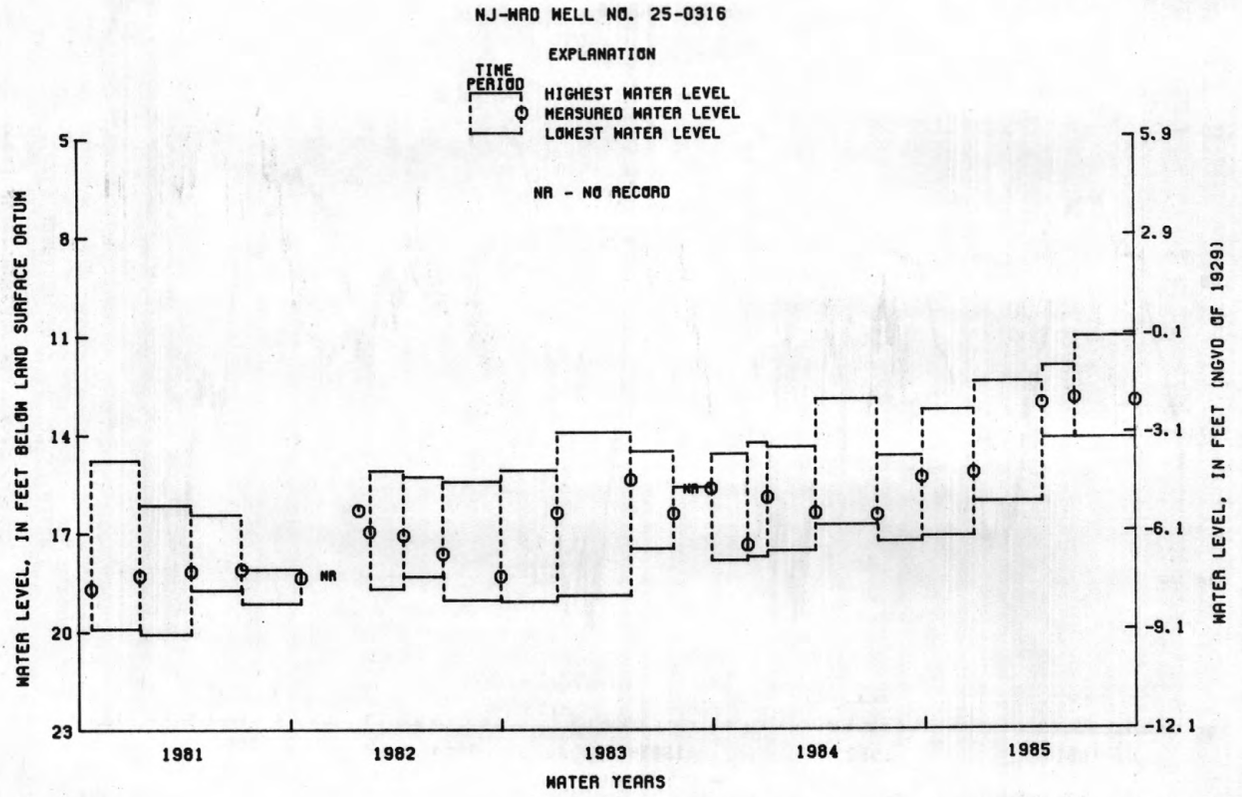


MONMOUTH COUNTY

402536073590501. Local I.D., Sandy Hook SP 1 Obs. NJ-WRD Well Number, 25-0316.
LOCATION.--Lat 40°25'36", long 73°59'05", Hydrologic Unit 02030104, about 1.9 mi north of the main entrance of Sandy Hook National Park, Middletown Township.
Owner: National Park Service.
AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 397 ft, screened 371 to 397 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to May 1978, November 1978 to current year.
Water-level recorder, May 1965 to August 1975.
DATUM.--Land-surface datum is 10.91 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.20 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--May 1965 to August 1975, February 1977 to May 1978, November 1978 to current year. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.99 ft below land-surface datum, Jan. 23, 1966; lowest, 20.12 ft below land-surface datum, between Sept. 7 and Nov. 2, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1984 TO DEC. 26, 1984	13.29	17.14	DEC. 26, 1984	15.21
DEC. 26, 1984 TO APR. 22, 1985	12.44	16.10	APR. 22, 1985	13.10
APR. 22, 1985 TO JUNE 17, 1985	11.97	14.17	JUNE 17, 1985	12.96
JUNE 17, 1985 TO SEPT. 30, 1985	11.08	14.17	SEPT. 30, 1985	13.05



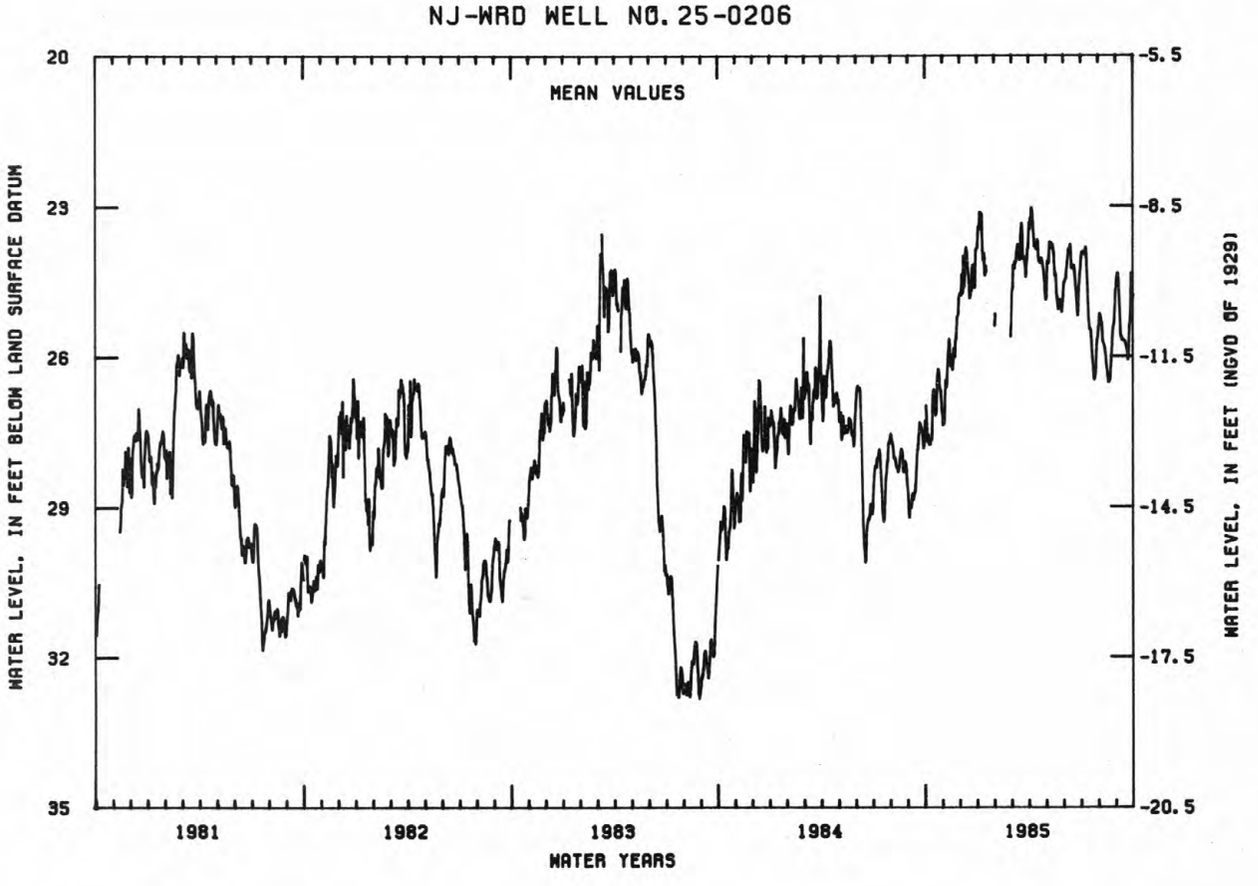
MONMOUTH COUNTY

402626074114204. Local I.D., Keyport Borough WD 4 Obs. NJ-WRD Well Number, 25-0206.
LOCATION.--Lat 40°26'25", long 74°11'45", Hydrologic Unit 02030104, at the unused Myrtle Avenue Water Plant, Keyport.
Owner: Keyport Borough Water Department.
AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 249 ft, screened 225 to 249 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 14.47 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.30 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.48 ft below land-surface datum, Apr. 5, 1985; lowest, 34.88 ft below land-surface datum, July 22, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.55	26.46	24.65	23.12	---	24.15	23.02	24.14	24.27	23.93	25.31	24.65
10	27.61	25.81	23.86	24.08	---	23.90	23.80	23.80	23.84	23.98	25.77	25.59
15	26.65	25.95	24.39	24.31	---	24.07	23.66	24.16	24.20	25.35	26.24	25.69
20	26.82	25.98	24.69	---	---	23.57	24.06	24.79	24.39	25.95	26.49	25.92
25	26.59	25.19	24.42	24.87	---	24.19	24.20	24.85	25.18	26.42	25.57	25.31
EOM	27.37	24.72	23.63	25.14	25.28	23.52	24.87	24.64	24.20	25.44	24.59	24.75
MEAN	27.08	25.95	24.32	23.95	---	24.01	23.86	24.42	24.34	25.10	25.70	25.29

WATER YEAR 1985 -- MEAN 24.96 HIGH 21.48 APR 5 LOW 28.88 OCT 9



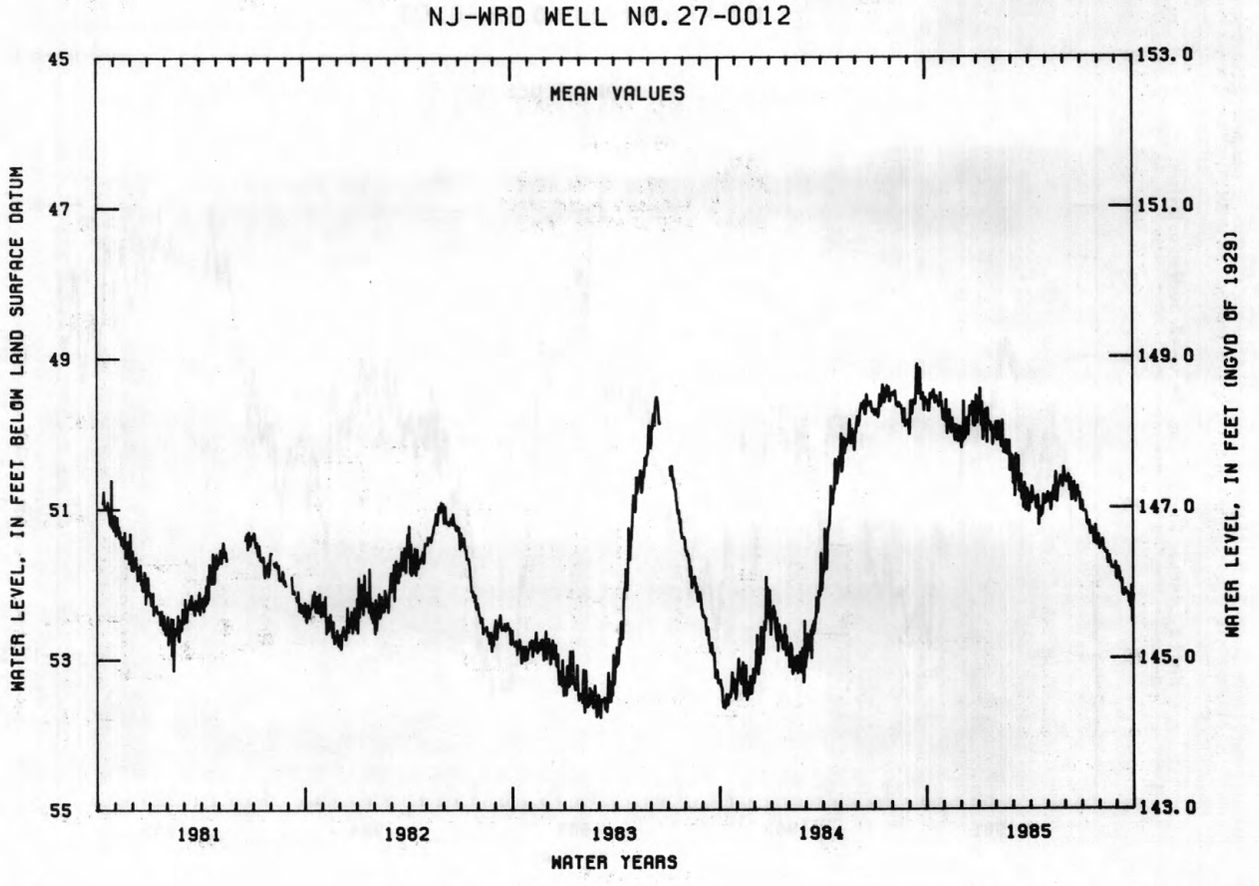
MORRIS COUNTY

404639074230001. Local I.D., Briarwood School Obs. NJ-WRD Well Number, 27-0012.
LOCATION.--Lat 40°46'39", long 74°23'00", Hydrologic Unit 02030103, at Briarwood School near Florham Park.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 110 ft, screened 100 to 110 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Altitude of land-surface datum is 198 ft, by altimeter.
Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--March 1967 to May 1975, April 1977 to current year. Records for 1967 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.17 ft below land-surface datum, June 3, 1968; lowest, 53.81 ft below land-surface datum, Feb. 26, Mar. 3, and Mar. 5, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	49.71	49.55	50.06	49.72	49.85	50.33	50.71	50.82	50.60	51.05	51.45	51.85
10	49.54	49.70	49.80	49.90	50.19	50.63	50.88	50.80	50.77	51.10	51.56	51.97
15	49.51	49.88	49.80	50.00	50.21	50.79	50.83	50.90	50.88	51.17	51.58	52.09
20	49.58	50.07	49.76	49.90	50.25	50.73	51.12	50.80	50.88	51.26	51.71	52.12
25	49.58	50.09	49.91	49.90	50.50	51.03	50.82	50.57	50.78	51.35	51.79	52.32
EOM	49.83	50.08	49.71	49.89	50.51	51.01	50.83	50.45	51.03	51.35	51.93	52.15
MEAN	49.58	49.90	49.83	49.85	50.14	50.70	50.92	50.75	50.75	51.22	51.64	52.08

WATER YEAR 1985 -- MEAN 50.61 HIGH 49.26 JAN 4 LOW 52.62 SEP 27

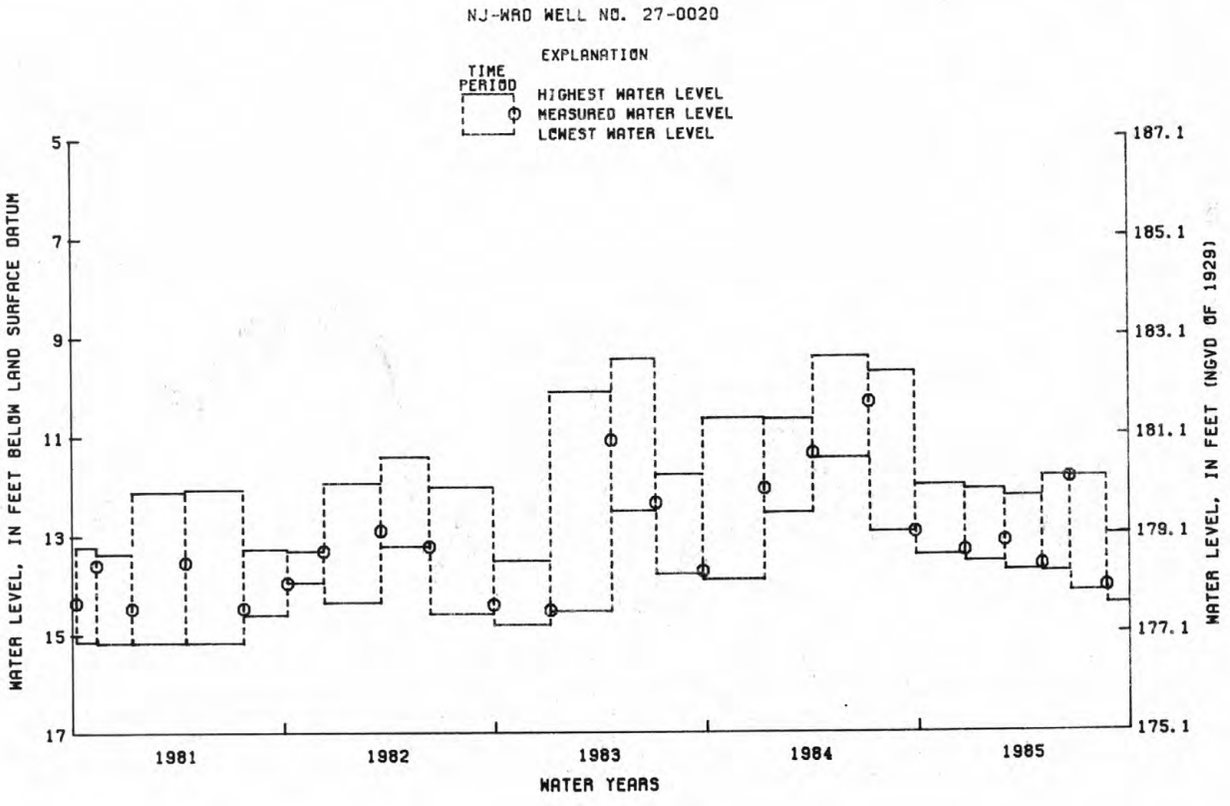


MORRIS COUNTY

405027074232301. Local I.D., Troy Meadows 1 Obs. NJ-WRD Well Number, 27-0020.
LOCATION.--Lat 40°50'27", long 74°23'23", Hydrologic Unit 02030103, on the east side of Beverwyck Road, 0.8 mi north of intersection with Troy Road, Parsippany-Troy Hills Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 89 ft, screened 79 to 89 ft.
INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, December 1965 to July 1970.
DATUM.--Land-surface datum is 192.07 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.32 ft above land-surface datum.
PERIOD OF RECORD.--December 1965 to July 1970, April 1977 to current year. Periodic manual measurements, December 1970 to February 1975. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.00 ft below land-surface datum, Mar. 15-16, 1967 and June 15, 1968; lowest, 15.77 ft below land-surface datum, between Feb. 10 and May 31, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1984 TO DEC. 21, 1984	12.02	13.43	DEC. 21, 1984	13.34
DEC. 21, 1984 TO FEB. 28, 1985	12.11	13.57	FEB. 28, 1985	13.15
FEB. 28, 1985 TO MAY 2, 1985	12.25	13.75	MAY 2, 1985	13.63
MAY 2, 1985 TO JUNE 20, 1985	11.85	13.78	JUNE 20, 1985	11.88
JUNE 20, 1985 TO AUG. 22, 1985	11.86	14.18	AUG. 22, 1985	14.08
AUG. 22, 1985 TO OCT. 16, 1985	13.02	14.43	OCT. 16, 1985	14.08



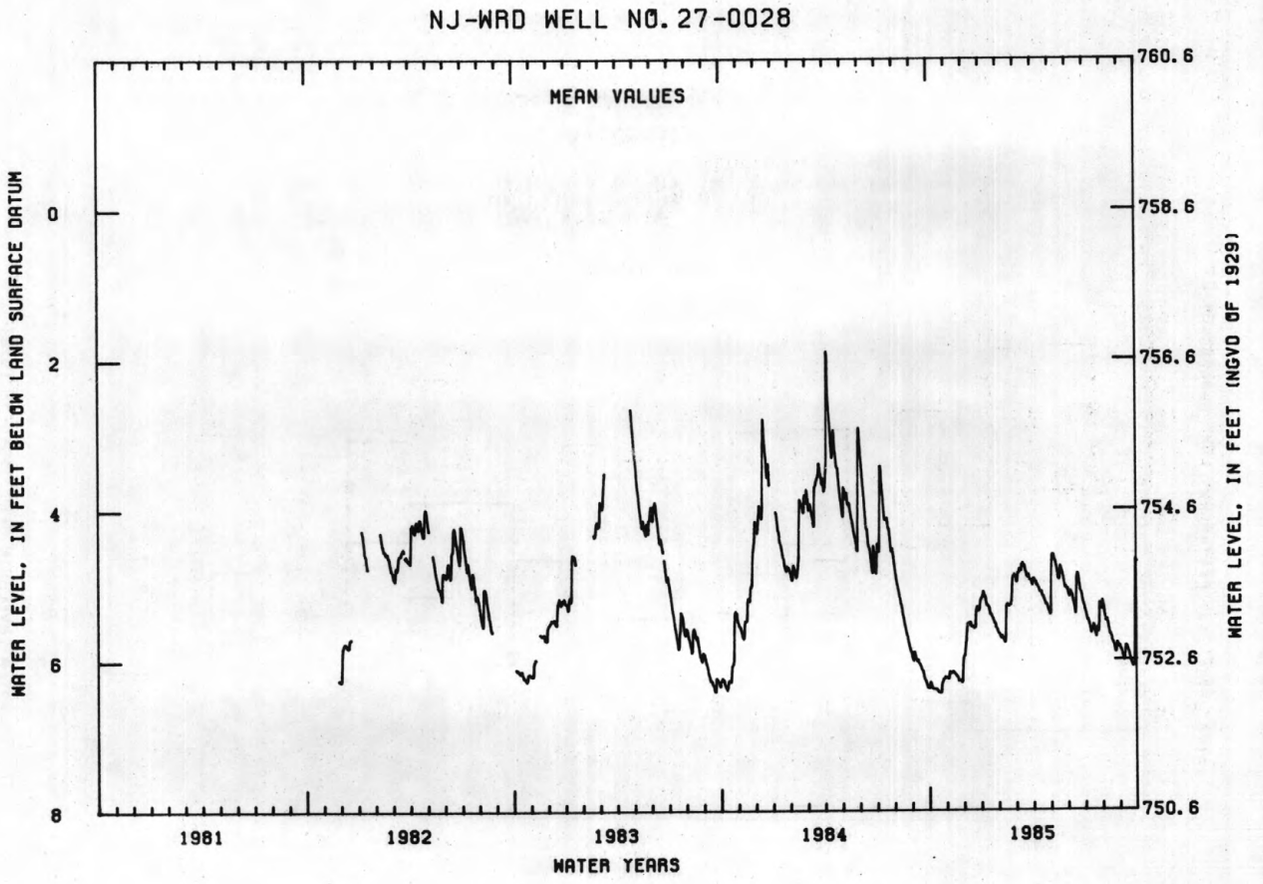
MORRIS COUNTY

410207074270001. Local I.D., Green Pond TW5 Obs. NJ-WRD Well Number, 27-0028.
LOCATION.--Lat 41°02'07", long 74°27'00", Hydrologic Unit 02030103, about 500 ft east of Route 513 and 1.1 mi south of intersection with Route 23, Rockaway Township.
Owner: State of New Jersey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 120 ft, screened 80 to 120 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 758.56 ft above National Geodetic Vertical Datum of 1929 (levels by Woodward-Clyde Consultants).
Measuring point: Top edge of recorder shelf, 1.20 ft above land-surface datum.
PERIOD OF RECORD.--November 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.35 ft below land-surface datum, Apr. 5, 1984; lowest, 6.45 ft below land-surface datum, Oct. 22, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.35	6.17	5.74	5.11	5.69	4.85	4.96	4.60	5.14	5.46	5.40	5.93
10	6.39	6.16	5.52	5.28	5.76	4.81	5.04	4.69	5.18	5.56	5.50	5.86
15	6.40	6.19	5.55	5.35	5.26	4.74	5.09	4.92	5.39	5.58	5.65	5.88
20	6.44	6.25	5.55	5.44	5.27	4.84	5.19	4.78	4.90	5.67	5.78	6.03
25	6.28	6.28	5.32	5.52	4.89	4.91	5.26	4.94	5.11	5.63	5.90	6.07
EOM	6.23	5.96	5.19	5.65	4.89	5.01	5.38	5.06	5.29	5.33	5.81	4.70
MEAN	6.35	6.21	5.51	5.37	5.38	4.86	5.13	4.87	5.13	5.50	5.63	5.80

WATER YEAR 1985 -- MEAN 5.48 HIGH 4.59 MAY 4 LOW 6.45 OCT 22

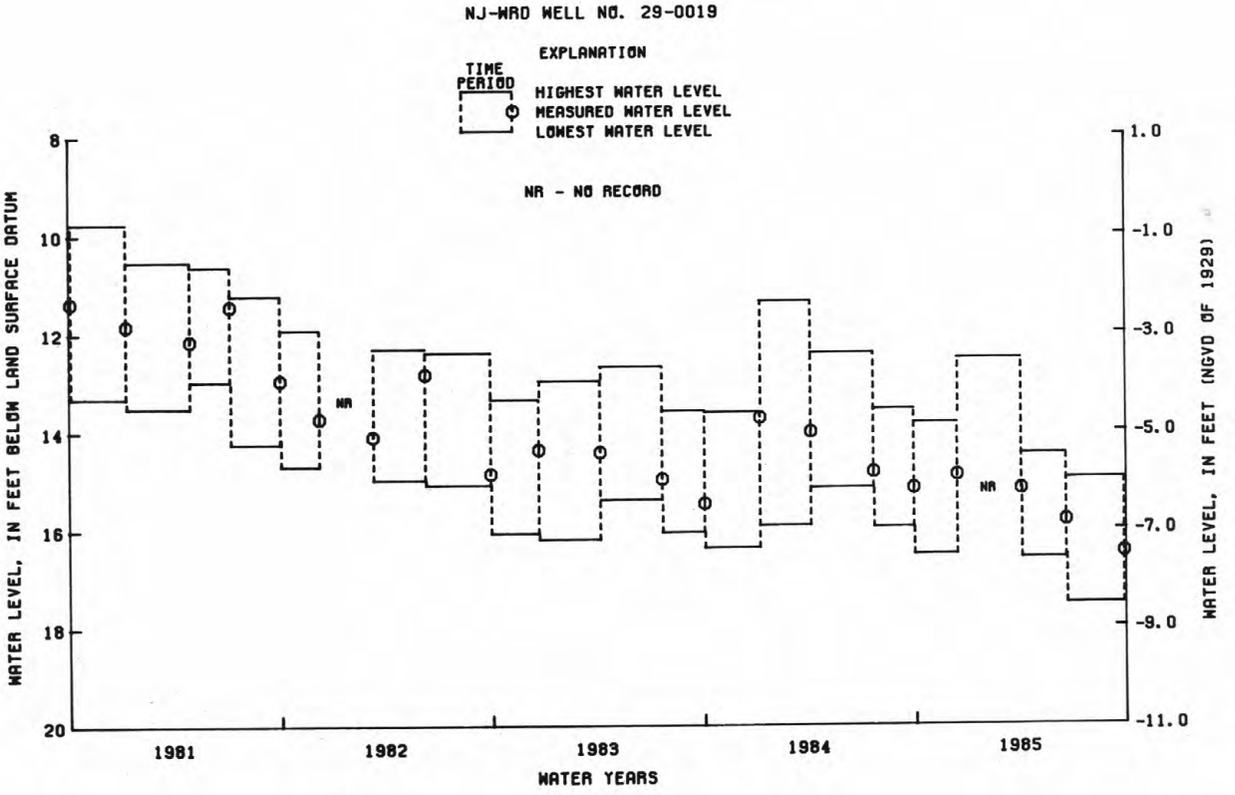


OCEAN COUNTY

394829074053503. Local I.D., Island Beach 3 Obs. NJ-WRD Well Number, 29-0019.
LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi south of main entrance, Berkeley Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 2,756 ft, screened 2,736 to 2,756 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, November 1968 to March 1975.
DATUM.--Land-surface datum is 9.02 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 5.11 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation. Water-quality data for 1985 is published elsewhere in this report.
PERIOD OF RECORD.--November 1968 to March 1975, February 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.95 ft above land-surface datum, Apr. 23, 1969; lowest, 17.53 ft below land-surface datum, between June 18 and Sept. 26, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1984 TO DEC. 12, 1984	13.82	16.50	DEC. 12, 1984	14.89
DEC. 12, 1984 TO APR. 1, 1985	12.52	---	APR. 1, 1985	15.18
APR. 1, 1985 TO JUNE 18, 1985	14.46	16.59	JUNE 18, 1985	15.82
JUNE 18, 1985 TO SEPT. 26, 1985	14.96	17.53	SEPT. 26, 1985	16.47

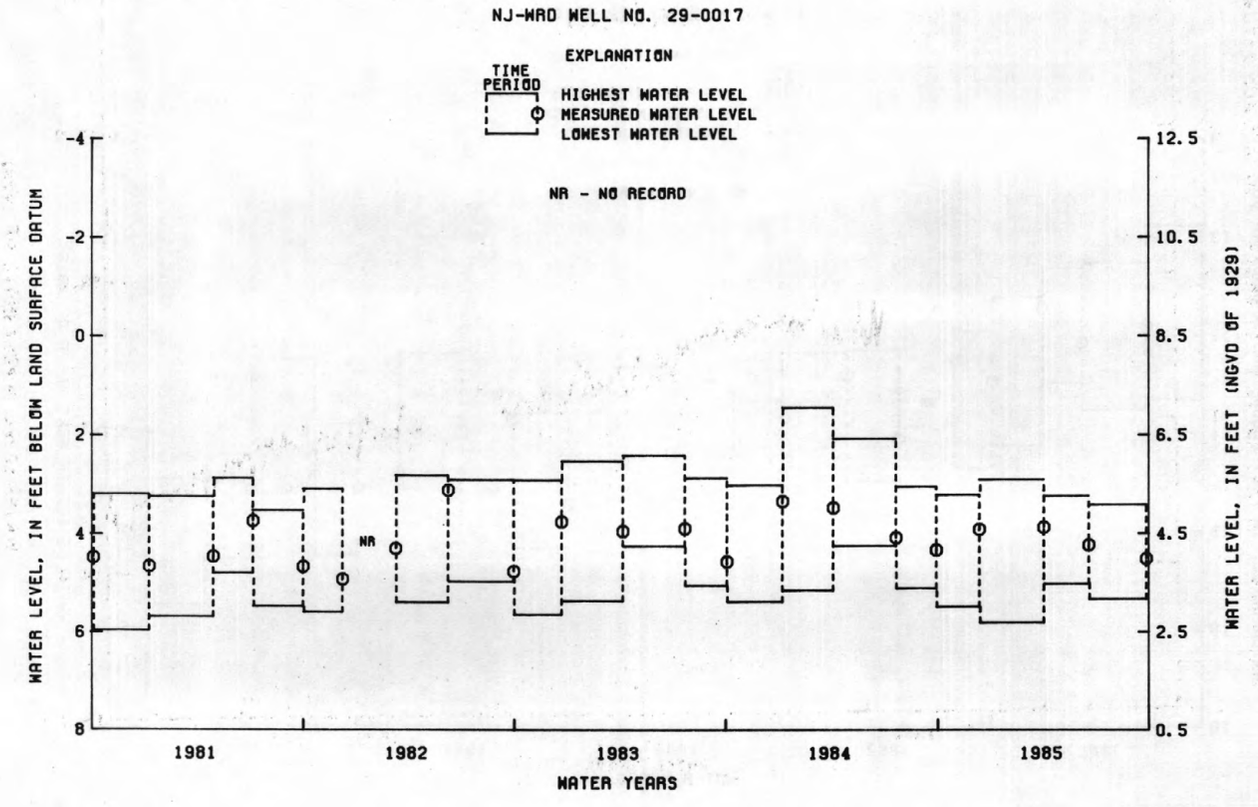


OCEAN COUNTY

394829074053501. Local I.D., Island Beach 1 Obs. NJ-WRD Well Number, 29-0017.
LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi south of main entrance, Berkeley Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 397 ft, screened 377 to 397 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, July 1962 to March 1975.
DATUM.--Land-surface datum is 8.50 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.40 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--July 1962 to March 1975, February 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.05 ft below land-surface datum, Dec. 6, 1962; lowest, 6.14 ft below land-surface datum, between Dec. 13, 1978 and Jan. 10, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1984 TO DEC. 12, 1984	3.21	5.49	DEC. 12, 1984	3.91
DEC. 12, 1984 TO APR. 1, 1985	2.90	5.81	APR. 1, 1985	3.87
APR. 1, 1985 TO JUNE 18, 1985	3.23	5.02	JUNE 18, 1985	4.23
JUNE 18, 1985 TO SEPT. 26, 1985	3.41	5.33	SEPT. 26, 1985	4.51



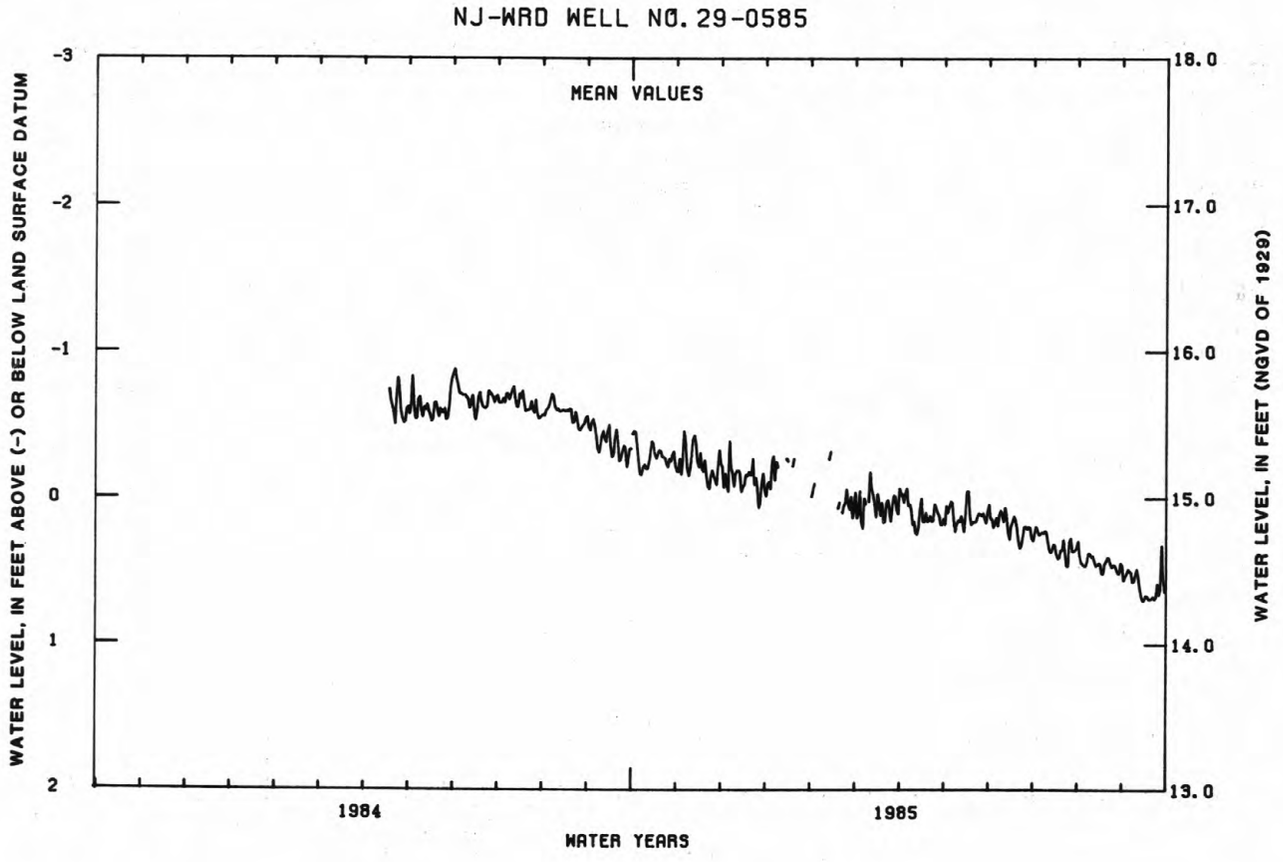
OCEAN COUNTY

395028074104401. Local I.D., DOE-Forked River Obs. NJ-WRD Well Number, 29-0585.
LOCATION.--Lat 39°50'28", long 74°10'44", Hydrologic Unit 02040301, at the Forked River Game Farm, Forked River.
Owner: State of New Jersey.
AQUIFER.--Piney Point aquifer of Eocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 959 ft, perforated casing 412 to 422 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Altitude of land-surface datum is 15 ft, from topographic map.
Measuring point: Top edge of recorder shelf, 3.80 ft above land-surface datum.
PERIOD OF RECORD.--April 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.83 ft above land-surface datum, June 1, 1984; lowest, 0.71 ft below land-surface datum, Sept. 14,22, 1985.

WATER LEVEL, IN FEET ABOVE (-) OR BELOW LAND SURFACE DATUM , WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-0.26	-0.46	-0.04	-0.29	---	-0.05	-0.03	0.06	0.16	0.25	0.46	0.50
10	-0.20	-0.29	-0.17	0.01	---	---	0.18	0.17	0.12	0.23	0.40	0.48
15	-0.37	-0.21	-0.08	-0.25	---	0.04	0.08	0.23	0.28	0.31	0.44	0.69
20	-0.32	-0.16	-0.16	---	---	0.03	0.16	0.18	0.20	0.35	0.43	0.68
25	-0.21	-0.15	-0.07	---	0.04	0.07	0.04	0.10	0.19	0.46	0.45	0.66
EOM	-0.18	-0.23	-0.01	-0.01	0.14	0.11	0.18	0.09	0.27	0.33	0.46	0.62
MEAN	-0.28	-0.23	-0.13	-0.17	---	0.05	0.10	0.12	0.18	0.31	0.44	0.59

WATER YEAR 1985 -- MEAN 0.10 HIGH -0.50 OCT 1 LOW 0.71 SEP 14



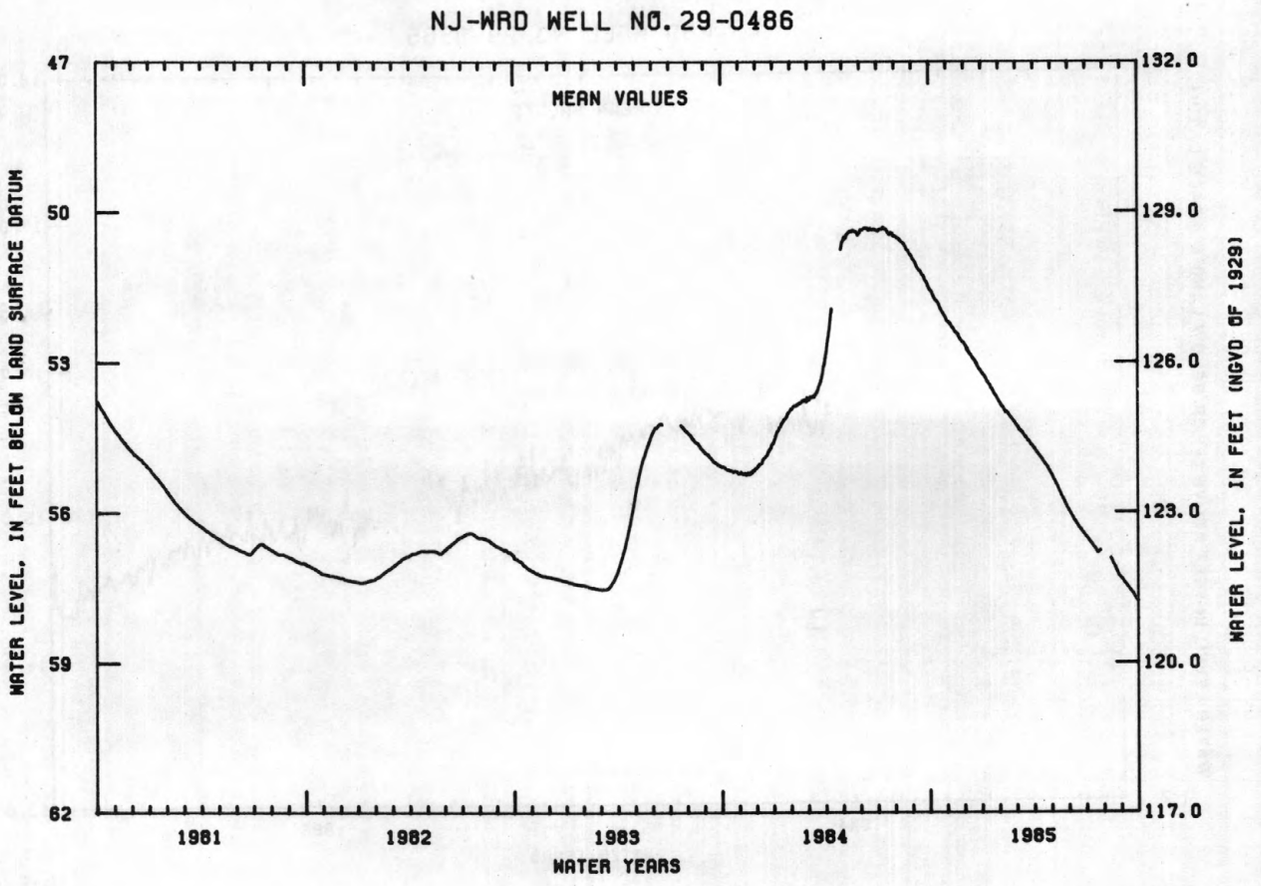
OCEAN COUNTY

395714074223401. Local I.D., Crammer Obs. NJ-WRD Well Number, 29-0486.
LOCATION.--Lat 39°57'14", long 74°22'34", Hydrologic Unit 02040301, about 800 ft east of Central Railroad of New Jersey, Whiting.
Owner: Whiting Bible Church.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Water-table observation well, diameter 8 in, depth 69 ft, slotted steel casing, gravel packed.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 179.05 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 8-inch coupling, 0.90 ft above land-surface datum.
REMARKS.--Originally a dug well in which slotted casing was installed on March 31, 1966, and the well deepened from 60 to 69 ft.
PERIOD OF RECORD.--May 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 47.80 ft below land-surface datum, June 9-14, 20-29, 1973; lowest, 57.78 ft below land surface datum, Sept. 30, 1985; well was dry, November 1957 to February 1958, and December 1965, before deepening.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.62	52.21	52.76	53.27	53.87	54.29	54.78	55.33	56.04	56.54	---	57.39
10	51.74	52.31	52.83	53.40	53.98	54.38	54.86	55.44	56.15	56.62	---	57.46
15	51.80	52.40	52.91	53.47	54.01	54.46	54.93	55.56	56.23	56.70	56.96	57.55
20	51.94	52.46	52.99	53.57	54.10	54.53	55.02	55.68	56.32	56.79	57.08	57.62
25	52.04	52.56	53.10	53.66	54.18	54.60	55.10	55.80	56.40	56.77	57.21	57.71
EOM	52.18	52.62	53.21	53.79	54.24	54.70	55.21	55.94	56.47	---	57.31	57.78
MEAN	51.85	52.40	52.93	53.50	54.02	54.47	54.95	55.58	56.23	56.67	57.13	57.55

WATER YEAR 1985 -- MEAN 54.77 HIGH 51.54 OCT 1 LOW 57.78 SEP 30

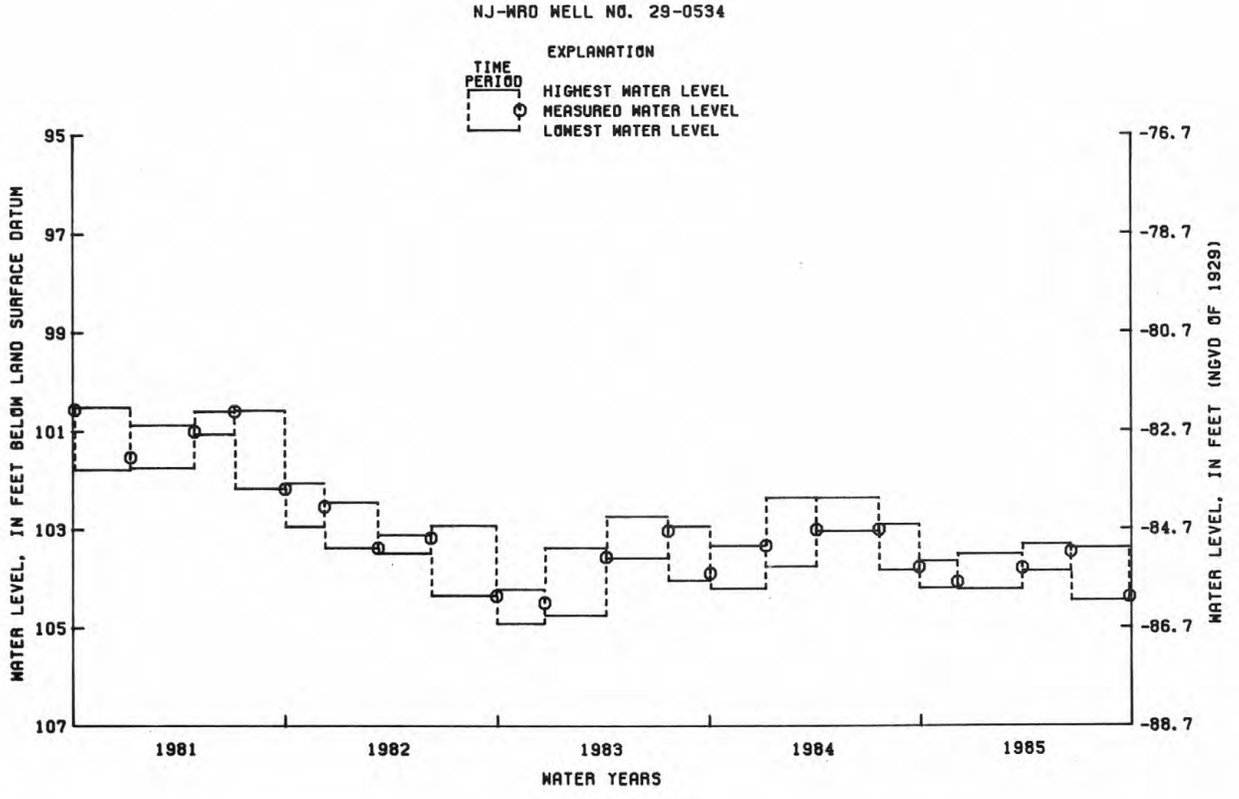


OCEAN COUNTY

395609074124001. Local I.D., Toms River TW 2 Obs. NJ-WRD Well Number, 29-0534.
LOCATION.--Lat 39°56'09", long 74°12'40", Hydrologic Unit 02040301, about 200 ft east of Double Trouble Road on the north side of Jakes Branch, South Toms River.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 1,146 ft, screened 1,080 to 1,146 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, December 1965 to March 1975.
DATUM.--Land-surface datum is 18.34 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.70 ft above land-surface datum.
PERIOD OF RECORD.--December 1965 to March 1975, February 1977 to current year. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.37 ft below land-surface datum, May 28, 1966; lowest, 104.91 ft below land-surface datum, between Sept. 29 and Dec. 21, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1984 TO DEC. 4, 1984	103.63	104.19	DEC. 4, 1984	104.06
DEC. 4, 1984 TO MAR. 25, 1985	103.49	104.21	MAR. 25, 1985	103.78
MAR. 25, 1985 TO JUNE 17, 1985	103.29	103.84	JUNE 17, 1985	103.45
JUNE 17, 1985 TO SEPT. 26, 1985	103.36	104.44	SEPT. 26, 1985	104.37



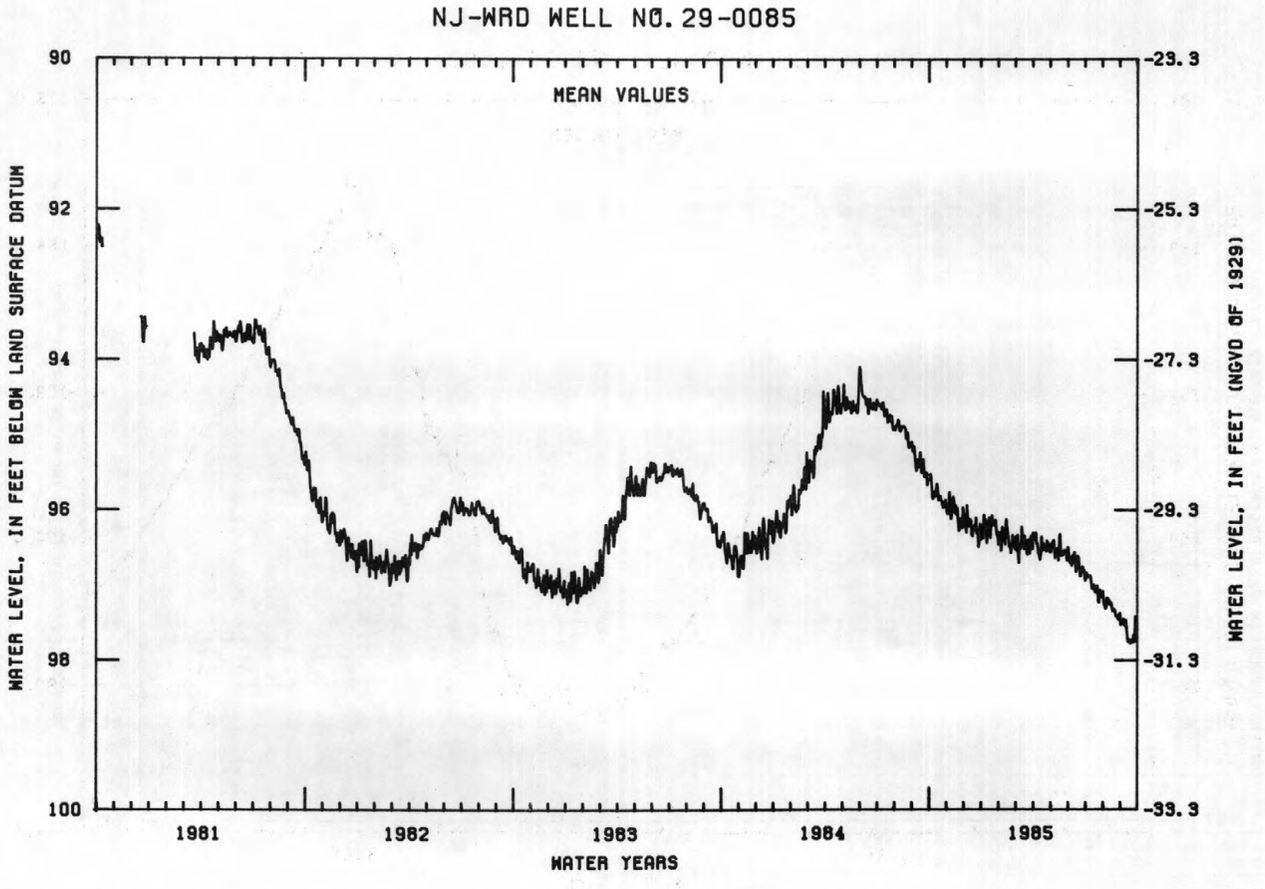
OCEAN COUNTY

395930074142101. Local I.D., Toms River Chem 84 Obs. NJ-WRD Well Number, 29-0085.
LOCATION.--Lat 39°59'29", long 74°14'20", Hydrologic Unit 02040301, at Toms River Plant, Ciba-Geigy Corporation, Dover Township.
Owner: Ciba-Geigy Corporation.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 1,480 ft, screened 1,460 to 1,480 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 66.71 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.70 ft above land-surface datum.
PERIOD OF RECORD.--July 1968 to July 1975, March 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 62.32 ft below land-surface datum, July 19, 1968 and Feb. 9, 1969; lowest, 97.79 ft below land-surface datum, Sept. 14,18-19,23,25, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	95.70	95.76	96.30	96.06	96.42	96.33	96.35	96.47	96.68	96.89	97.31	97.46
10	95.81	95.97	96.13	96.44	96.42	96.51	96.58	96.58	96.63	96.88	97.20	97.46
15	95.70	96.04	96.33	96.12	96.28	96.43	96.47	96.67	96.82	97.00	97.23	97.76
20	95.82	96.12	96.19	96.15	96.48	96.45	96.51	96.61	96.70	97.05	97.33	97.75
25	95.97	96.16	96.31	96.13	96.41	96.47	96.41	96.53	96.77	97.23	97.40	97.76
EOM	96.02	96.05	96.39	96.41	96.52	96.52	96.56	96.58	96.90	97.13	97.37	97.70
MEAN	95.80	96.03	96.23	96.24	96.38	96.46	96.47	96.53	96.71	97.01	97.30	97.63

WATER YEAR 1985 -- MEAN 96.57 HIGH 95.47 OCT 3 LOW 97.79 SEP 14



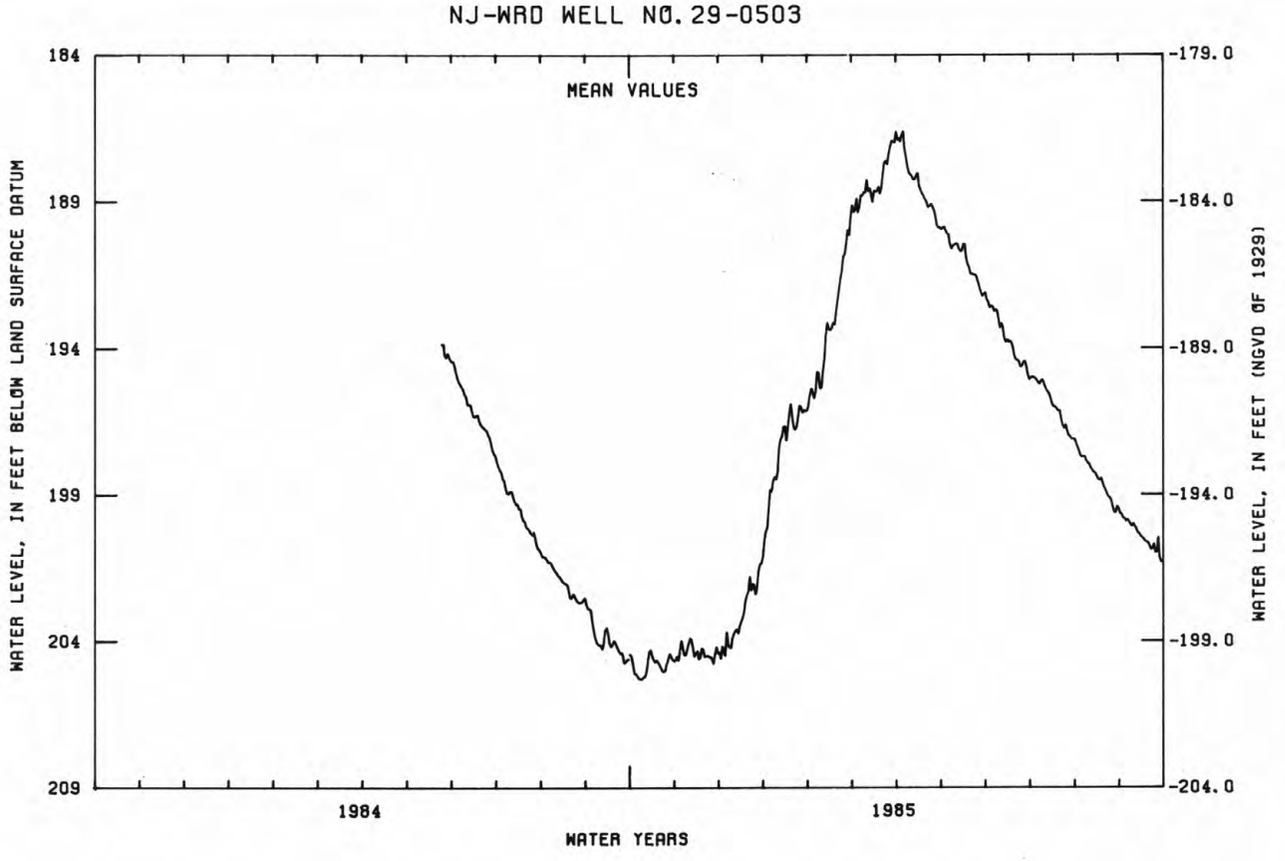
OCEAN COUNTY

400210074031001. Local I.D., Mantoloking 6 Obs. NJ-WRD Well Number, 29-0503.
LOCATION.--Lat 40°02'10", long 74°03'10", Hydrologic Unit 02040301, at the Bay Avenue water treatment plant, Mantoloking.
Owner: New Jersey Water Company.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 906 ft, screened 845 to 906 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Altitude of land-surface datum is 5 ft, from topographic map.
Measuring point: Top edge of recorder shelf, 2.40 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--May 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 185.95 ft below land-surface datum, Apr. 6, 1985; lowest, 205.61 ft below land-surface datum, Oct. 24, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	205.13	203.98	204.50	198.82	195.46	188.91	186.75	190.01	192.57	195.03	197.68	199.92
10	205.24	204.07	203.88	198.21	194.79	188.69	188.05	190.49	193.00	195.08	197.94	200.00
15	204.29	204.39	203.45	196.64	193.38	188.76	188.11	190.71	193.81	195.60	198.27	200.44
20	204.72	204.30	202.40	196.32	192.39	188.51	188.83	191.16	194.04	196.10	198.60	200.65
25	205.01	204.54	202.09	195.94	190.78	187.62	189.10	191.51	194.65	196.75	199.13	200.98
EOM	204.68	204.41	201.11	195.94	190.15	187.00	189.91	192.16	194.90	197.10	199.50	201.26
MEAN	204.83	204.39	203.07	197.34	193.31	188.43	188.27	190.87	193.59	195.86	198.41	200.42

WATER YEAR 1985 -- MEAN 196.57 HIGH 185.95 APR 6 LOW 205.61 OCT 24



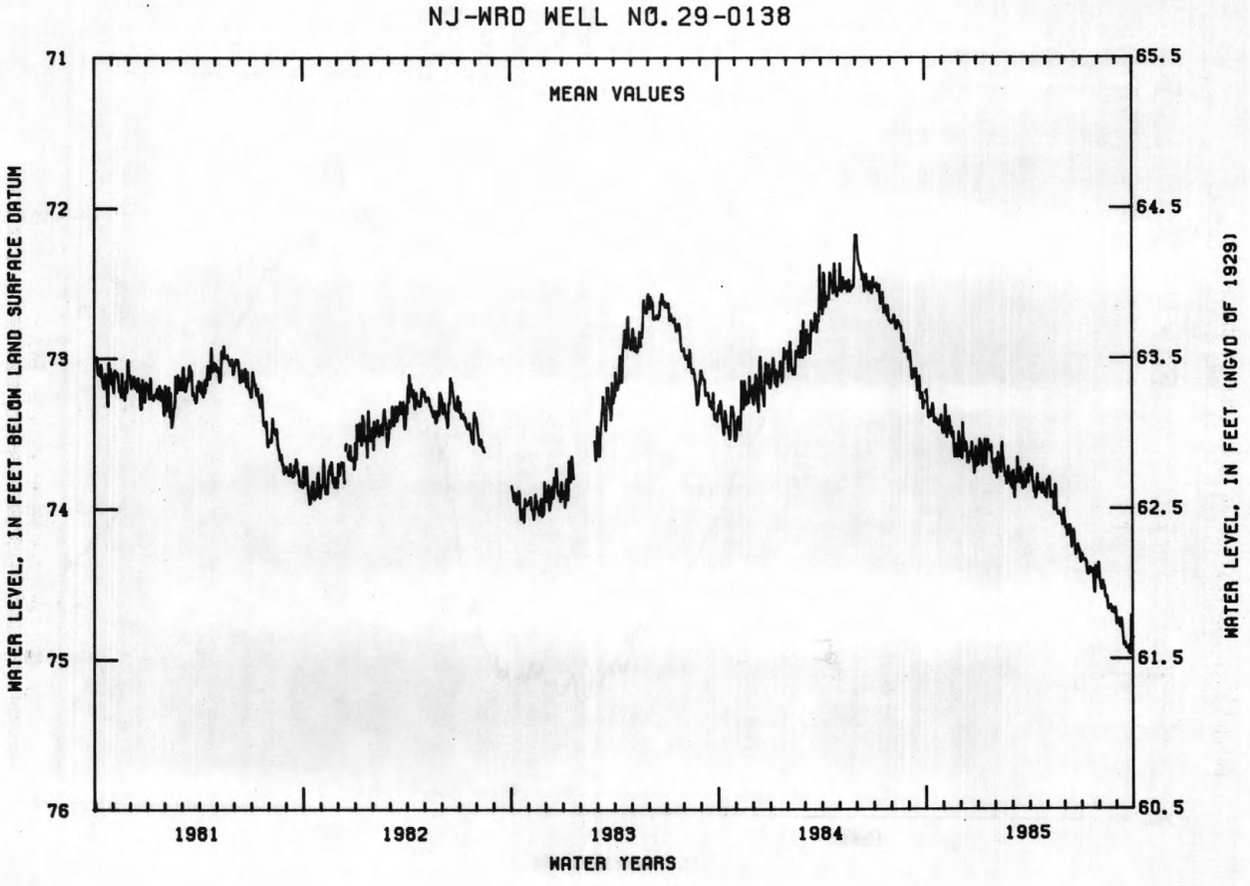
OCEAN COUNTY

400416074270101. Local I.D., Colliers Mills TW 1 Obs. NJ-WRD Well Number, 29-0138.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 427 ft, screened 417 to 427 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 136.52 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch coupling, 2.20 ft above land-surface datum.
PERIOD OF RECORD.--February 1964 to July 1975, March 1977 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.02 ft below land-surface datum, Feb. 19, 1964; lowest, 75.00 ft below land-surface datum, Sept. 25, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.32	73.31	73.67	73.54	73.73	73.75	73.74	73.82	74.13	74.34	74.53	74.74
10	73.38	73.45	73.56	73.72	73.75	73.83	73.89	73.90	74.14	74.35	74.52	74.73
15	73.33	73.51	73.69	73.57	73.67	73.79	73.82	74.01	74.26	74.41	74.58	74.90
20	73.41	73.57	73.63	73.59	73.79	73.79	73.87	74.02	74.21	74.41	74.66	74.93
25	73.45	73.61	73.68	73.58	73.80	73.80	73.83	74.02	74.25	74.56	74.66	74.97
EOM	73.49	73.54	73.72	73.74	73.85	73.83	73.92	74.07	74.34	74.45	74.69	74.86
MEAN	73.37	73.51	73.63	73.63	73.73	73.80	73.84	73.95	74.19	74.40	74.59	74.85

WATER YEAR 1985 -- MEAN 73.96 HIGH 73.18 OCT 3 LOW 75.00 SEP 25

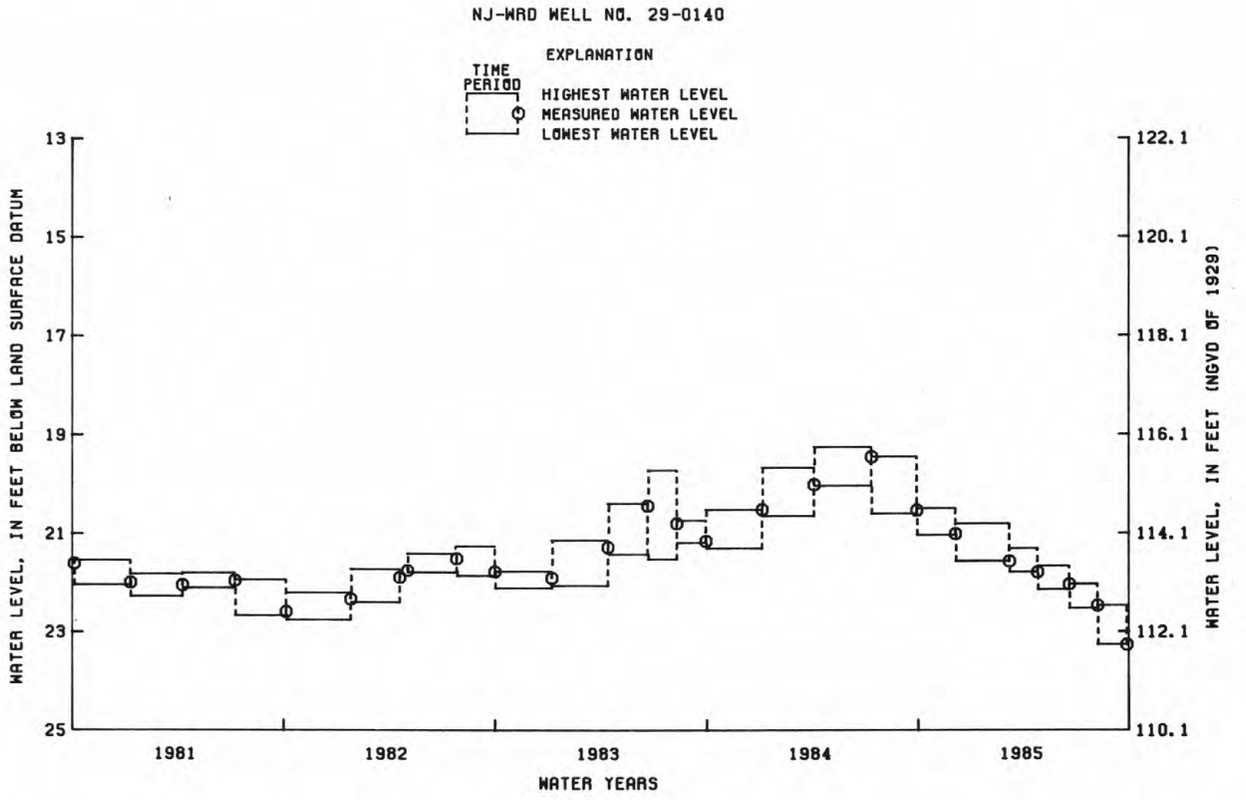


OCEAN COUNTY

400416074270103. Local I.D., Colliers Mills TW 3 Obs. NJ-WRD Well Number, 29-0140.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 270 ft, screened 257 to 267 ft.
INSTRUMENTATION.--Water-level extremes recorder, October 1976 to current year. Water-level recorder, January 1964 to July 1975.
DATUM.--Land-surface datum is 135.15 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.49 ft above land-surface datum.
PERIOD OF RECORD.--January 1964 to July 1975, October 1976 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.72 ft below land-surface datum, May 9, 1964; lowest, 23.26 ft below land-surface datum, between Aug. 6, and Sept. 26, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL / LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1984 TO DEC. 4, 1984	20.49 / 21.04	DEC. 4, 1984	21.01
DEC. 4, 1984 TO MAR. 6, 1985	20.80 / 21.57	MAR. 6, 1985	21.57
MAR. 6, 1985 TO APR. 24, 1985	21.30 / 21.79	APR. 24, 1985	21.79
APR. 24, 1985 TO JUNE 18, 1985	21.66 / 22.15	JUNE 18, 1985	22.04
JUNE 18, 1985 TO AUG. 6, 1985	22.04 / 22.53	AUG. 6, 1985	22.47
AUG. 6, 1985 TO SEPT. 26, 1985	22.47 / 23.26	SEPT. 26, 1985	23.26

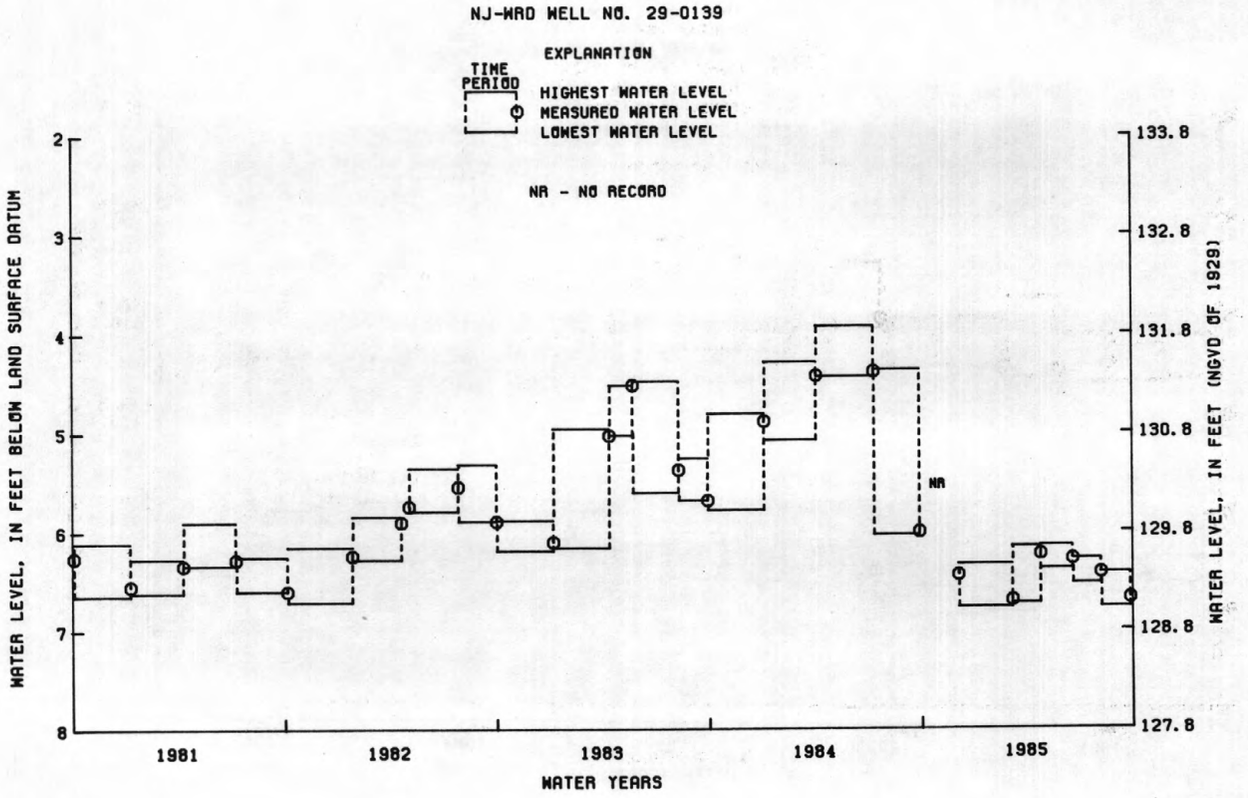


OCEAN COUNTY

400416074270102. Local I.D., Colliers Mills TW 2 Obs. NJ-WRD Well Number, 29-0139.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Vincentown Formation of Paleocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 171 ft, screened 161 to 171 ft.
INSTRUMENTATION.--Water-level extremes recorder, October 1976 to current year. Water-level recorder, January 1964 to August 1975.
DATUM.--Land-surface datum is 135.76 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.10 ft above land-surface datum.
PERIOD OF RECORD.--January 1964 to August 1975, October 1976 to current year. Records for 1964 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.92 ft below land-surface datum, between Apr. 3 and July 11, 1984; lowest, 6.77 ft below land-surface datum, between Dec. 4, 1984 and Mar. 6, 1985 and between Aug. 6 and Sept. 26, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1984 TO DEC. 4, 1984	---	---	DEC. 4, 1984	6.44
DEC. 4, 1984 TO MAR. 6, 1985	6.33	6.77	MAR. 6, 1985	6.70
MAR. 6, 1985 TO APR. 24, 1985	6.15	6.73	APR. 24, 1985	6.23
APR. 24, 1985 TO JUNE 18, 1985	6.14	6.38	JUNE 18, 1985	6.28
JUNE 18, 1985 TO AUG. 6, 1985	6.28	6.53	AUG. 6, 1985	6.42
AUG. 6, 1985 TO SEPT. 26, 1985	6.42	6.77	SEPT. 26, 1985	6.68

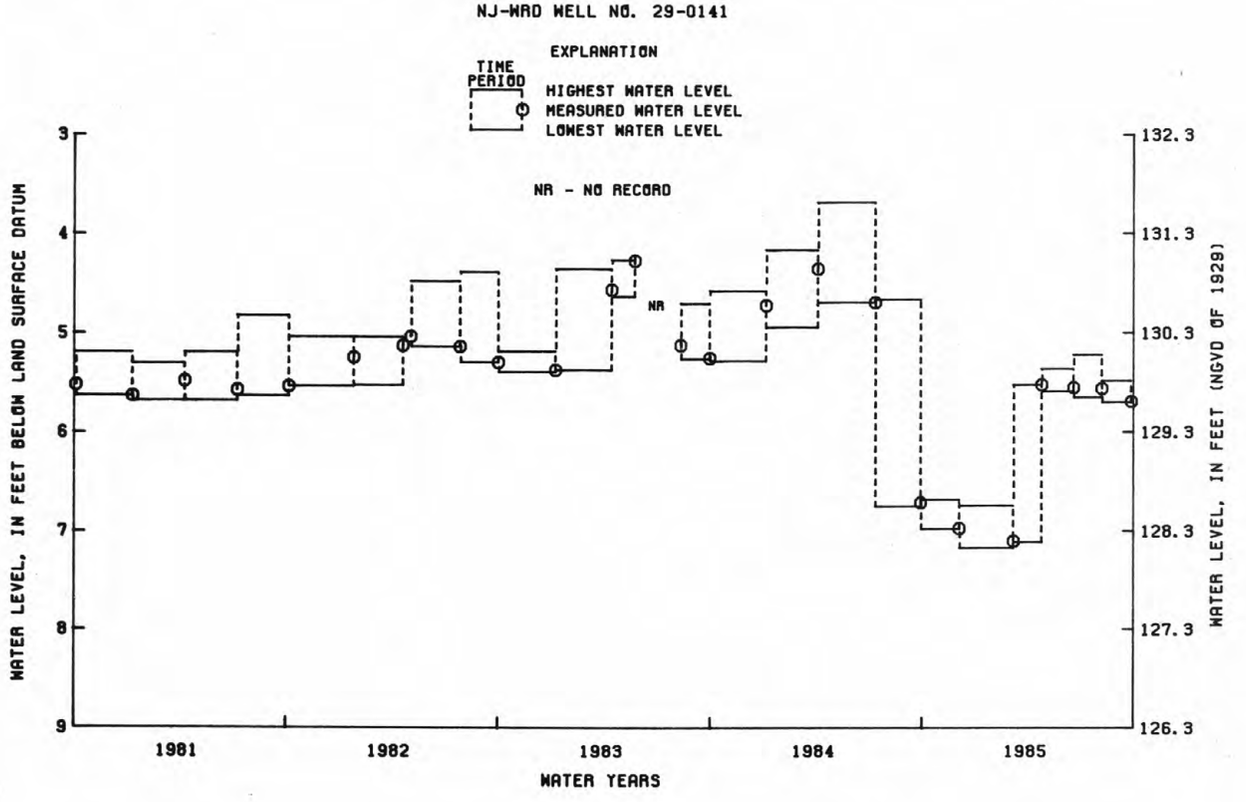


OCEAN COUNTY

400416074270104. Local I.D., Colliers Mills TW 4 Obs. NJ-WRD Well Number, 29-0141.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 71 ft, gravel-filled hole 46 to 71 ft.
INSTRUMENTATION.--Water-level extremes recorder, October 1976 to current year. Water-level recorder, March 1964 to April 1975.
DATUM.--Land-surface datum is 135.31 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.86 ft above land-surface datum.
REMARKS.--Water level affected by stage of Colliers Mills Pond.
PERIOD OF RECORD.--March 1964 to April 1975, October 1976 to current year. Records for 1964 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.68 ft below land-surface datum, between Apr. 3 and July 11, 1984; lowest, 7.17 ft below land-surface datum, between Dec. 4, 1984 and Mar. 6, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1984 TO DEC. 4, 1984	6.68	6.98	DEC. 4, 1984	6.97
DEC. 4, 1984 TO MAR. 6, 1985	6.74	7.17	MAR. 6, 1985	7.10
MAR. 6, 1985 TO APR. 24, 1985	5.52	7.11	APR. 24, 1985	5.52
APR. 24, 1985 TO JUNE 18, 1985	5.36	5.59	JUNE 18, 1985	5.55
JUNE 18, 1985 TO AUG. 6, 1985	5.22	5.65	AUG. 6, 1985	5.56
AUG. 6, 1985 TO SEPT. 26, 1985	5.48	5.70	SEPT. 26, 1985	5.69



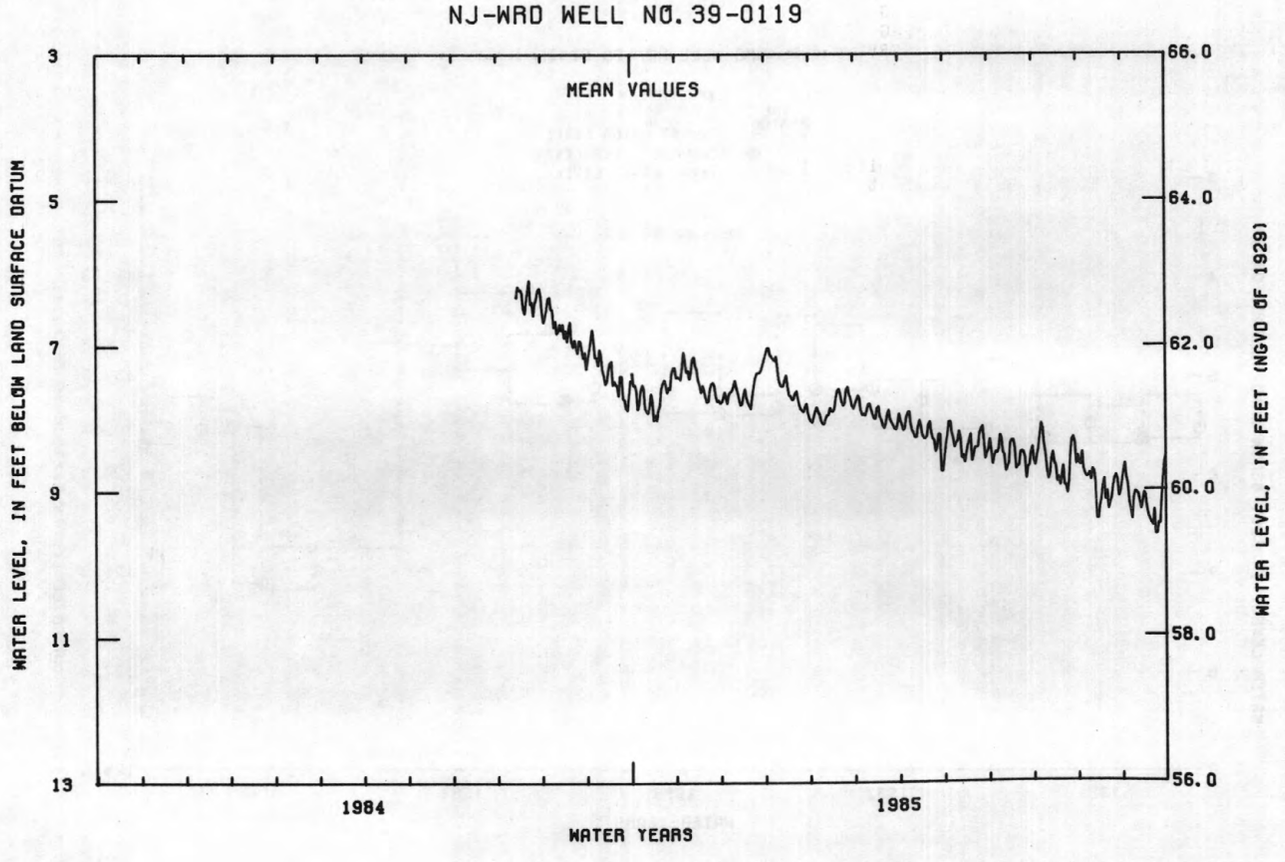
UNION COUNTY

404106074171901. Local I.D., Union County Park Obs. NJ-WRD Well Number, 39-0119.
LOCATION.--Lat 40°41'06", long 74°17'19", Hydrologic Unit 02030104, at Galloping Hill Golf Course, Kenilworth.
Owner: Union County Park Commission.
AQUIFER.--Brunswick Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, length of casing unknown, depth 290 ft, open hole.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 69.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.30 ft above land-surface datum.
REMARKS.--Water levels affected by nearby pumping. Water-quality data for 1985 is published elsewhere in this report.
PERIOD OF RECORD.--June 1943 to May 1975, July 1984 to current year. Periodic manual measurements, August 1976 to April 1984. Records for 1975 to 1983 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.06 ft below land-surface datum, June 2, 1952; lowest, 16.05 ft below land-surface datum, June 29, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.87	7.08	7.79	7.18	7.91	7.73	8.12	8.04	8.51	8.42	8.71	9.18
10	7.86	7.36	7.47	7.54	8.00	7.89	8.17	8.32	8.28	8.49	8.85	9.04
15	7.75	7.47	7.79	7.54	7.90	8.00	8.02	8.50	8.61	8.46	9.39	9.04
20	7.81	7.70	7.82	7.65	7.67	8.02	8.24	8.21	8.69	8.92	9.13	9.47
25	7.64	7.50	7.37	7.89	7.56	7.88	8.30	8.38	8.47	9.03	8.94	9.46
EOM	7.43	7.78	7.11	8.04	7.83	8.07	8.72	8.46	8.46	8.63	8.90	8.52
MEAN	7.65	7.48	7.58	7.56	7.84	7.94	8.17	8.35	8.49	8.59	8.91	9.15

WATER YEAR 1985 -- MEAN 8.14 HIGH 6.98 JAN 2 LOW 10.03 SEP 24



WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

ATLANTIC COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. LAND SURF. FT. NGVD	SCREENED INTERVAL (FT.)	AQUIFER UNIT
01-367	LONGPORT WD	LONGPORT 2	391859	743122	10	750 - 800	122KRKDL
01-370	MARGATE CITY WD	MCWD 6	391928	743055	10	748 - 798	122KRKDL
01-375	MARGATE CITY WD	MCWD 4	392002	743011	10	745 - 795	122KRKDL
01-600	VENTNOR CITY WD	VCWD 8	392045	742840	8	750 - 810	122KRKDL
01-025	CLARIDGE HOTEL	CLARIDGE	392128	742557	8	773 - 850	122KRKDL
01-682	RESORTS INTRNTL	1-1980	392134	742521	8	830*	122KRKDL
01-135	NJ WATER CO	BARGAINTOWN 12	392244	743455	15	92 - 127	121CKKD
01-138	NJ WATER CO	NJWC 10-FIRE RD.	392254	743434	15	100 - 123	121CKKD
01-040	BRIGANTINE WD	BAYSHORE 3	392342	742328	10	706 - 766	122KRKDL
01-041	BRIGANTINE WD	BRIG WD 1	392431	742153	9	736 - 827	122KRKDL
01-226	A C EXPRESSWAY AUTH	RACE COURSE PL	392658	743752	70	53 - 64	121CKKD
01-244	A C EXPRESSWAY AUTH	EGG HARBOR PL	393047	744114	70	45 - 55	121CKKD
01-116	EGG HAR WTR WKS	EGG HARBOR 3	393210	743828	40	342 - 394	122KRKDL
01-250	A C EXPRESSWAY AUTH	SERVICE AREA 1	393303	744412	77	142 - 157	121CKKD

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
01-367	LONGPORT WD	LONGPORT 2	3/13/1985	19.0	177	7.4	26	7.5
01-370	MARGATE CITY WD	MCWD 6	3/13/1985	19.0	167	7.3	23	6.5
01-375	MARGATE CITY WD	MCWD 4	3/13/1985	18.5	165	7.4	21	6.8
01-600	VENTNOR CITY WD	VCWD 8	3/13/1985	18.5	144	7.4	21	3.7
01-025	CLARIDGE HOTEL	CLARIDGE	8/22/1985	19.0	---	7.5	27	9.6
01-682	RESORTS INTRNTL	1-1980	3/12/1985	18.5	180	7.6	29	8.0
01-135	NJ WATER CO	BARGAINTOWN 12	10/12/1984	13.5	78	4.7	5.6	9.2
01-138	NJ WATER CO	NJWC 10-FIRE RD	10/12/1984	14.5	44	5.0	4.5	8.2
01-040	BRIGANTINE WD	BAYSHORE 3	3/11/1985	17.5	150	7.0	15	2.1
01-041	BRIGANTINE WD	BRIG WD 1	3/11/1985	18.5	130	6.9	21	5.6
01-226	A C EXPRESSWAY AUTH	RACE COURSE PL	10/11/1984	14.5	153	4.9	19	43
01-244	A C EXPRESSWAY AUTH	EGG HARBOR PL	10/11/1984	16.0	109	4.7	16	28
01-116	EGG HAR WTR WKS	EGG HARBOR 3	3/12/1985	13.5	54	5.9	1.9	3.1
01-250	A C EXPRESSWAY AUTH	SERVICE AREA 1	10/11/1984	15.0	30	4.5	1.8	3.2

* Total depth of well.

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

BURLINGTON COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
05-0676	USGS-COYLE AIRPORT 1 OBS	39 49 14	074 25 44	199	530-540	124MNSQ	09-23-85	14.0	206

LOCAL IDENTIFIER	DATE OF SAMPLE	PH (STANDARD UNITS)	HARDNESS (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)	CARBONATE IT-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)
USGS-COYLE AIRPORT 1 OBS	09-23-85	10.1	5	1.3	.32	40	3.1	--	--	100

LOCAL IDENTIFIER	DATE OF SAMPLE	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 DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
USGS-COYLE AIRPORT 1 OBS	09-23-85	<.3	4.8	.30	.2	--	<.010	.11	.220	.20

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
USGS-COYLE AIRPORT 1 OBS	09-23-85	.31	.020	10	<1	2	2	3	13	2

LOCAL IDENTIFIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
USGS-COYLE AIRPORT 1 OBS	09-23-85	3	<.1	4	3.4	5

Aquifer unit:
124PNPN - Piney Point aquifer

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

CAPE MAY COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
09-0080	USGS-CAPE MAY 42 CC OBS	39 02 11	074 50 55	13	242-252	121CNSY	08-27-85	14.5	177

LOCAL IDENTIFIER	DATE OF SAMPLE	PH (STANDARD UNITS)	HARDNESS (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)	CARBONATE IT-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)
USGS-CAPE MAY 42CC OBS	08-27-85	7.3	51	17	2.0	7.4	1.3	54	--	44

LOCAL IDENTIFIER	DATE OF SAMPLE	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 DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
USGS-CAPE MAY 42CC OBS	08-27-85	4.8	10	<.10	24	95	<.010	<.10	.340	.60

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
USGS-CAPE MAY 42CC OBS	08-27-85	--	.070	10	<1	<1	<1	1	1900	4

LOCAL IDENTIFIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
USGS-CAPE MAY 42CC OBS	08-27-85	79	<.1	3	1.4	1

Aquifer unit:
121CNSY - Cohansey Sand

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

CAPE MAY COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. LAND SURF. FT. NGVD	SCREENED INTERVAL (FT.)	AQUIFER UNIT
09-017	US COAST GUARD	USCG 1	385651	745310	11	292 - 322	121CNSY
09-017	US COAST GUARD	USCG 1	385651	745310	11	292 - 322	121CNSY
09-018	US COAST GUARD	USCG 2	385652	745327	11	295 - 325	121CNSY
09-018	US COAST GUARD	USCG 2	385652	745327	11	295 - 325	121CNSY
09-041	SNOW CANNING	SNOW 2	385722	745241	10	280 - 320	121CNSY
09-044	SNOW CANNING	SNOW 1	385725	745257	10	278*	121CNSY
09-154	WILDWOOD WD	WWD 2	385932	744851	10	293 - 354	121CNSY
09-080	US GEOL SURVEY	CAPE MAY 42CC	390213	745056	14	242 - 252	121CNSY
09-132	STONE HARBOR WD	SHWD 4	390301	744545	10	830 - 880	122KRKDL
09-135	STONE HARBOR WD	SHWD 3	390323	744525	9	837 - 877	122KRKDL
09-005	AVALON WD	AVALON WD 8-76	390545	744326	8	784 - 839	122KRKDL
09-126	SEA ISLE CITY WD	SICWD 5	390747	744241	7	735 - 802	122KRKDL
09-127	SEA ISLE CITY WD	SICWD 4	390847	744200	7	742 - 830	122KRKDL
09-129	SEA ISLE CITY WD	SICWD 2	390926	744131	7	744 - 861	122KRKDL
09-136	ARAMINGO WC	AWC 1	391152	743927	7	802 - 834	122KRKDL
09-108	NJ WATER CO	SHORE DIV 14	391500	743645	7	774 - 840	122KRKDL
09-124	NJ WATER CO	SHORE DIV 13	391712	743340	8	757 - 840	122KRKDL

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
09-017	US COAST GUARD	USCG 1	10/23/1984	15.5	370	7.8	54	42
09-017	US COAST GUARD	USCG 1	8/ 9/1985	15.5	347	---	---	29
09-018	US COAST GUARD	USCG 2	10/23/1984	16.0	334	7.9	54	30
09-018	US COAST GUARD	USCG 2	8/ 9/1985	15.5	360	7.7	---	36
09-041	SNOW CANNING	SNOW 2	8/ 8/1985	15.5	330	7.6	---	29
09-044	SNOW CANNING	SNOW 1	10/23/1984	15.0	289	7.7	46	20
09-154	WILDWOOD WD	WWD 2	8/ 8/1985	16.0	675	7.7	---	114
09-080	US GEOL SURVEY	CAPE MAY 42CC	8/27/1985	14.5	177	7.3	7.4	10
09-132	STONE HARBOR WD	SHWD 4	3/20/1985	19.5	315	8.7	64	30
09-135	STONE HARBOR WD	SHWD 3	3/20/1985	19.5	290	8.8	57	20
09-005	AVALON WD	AVALON WD 8-76	3/19/1985	19.0	231	8.4	34	12
09-126	SEA ISLE CITY WD	SICWD 5	3/18/1985	18.5	234	8.4	30	12
09-127	SEA ISLE CITY WD	SICWD 4	3/18/1985	19.5	233	8.3	31	11
09-129	SEA ISLE CITY WD	SICWD 2	3/18/1985	19.5	222	8.3	34	12
09-136	ARAMINGO WC	AWC 1	3/19/1985	19.0	212	8.1	36	12
09-108	NJ WATER CO	SHORE DIV 14	3/19/1985	18.5	203	7.8	31	9.7
09-124	NJ WATER CO	SHORE DIV 13	3/19/1985	18.5	192	7.8	32	9.7

* Total depth of well.

Aquifer unit:

121CNSY - Cohansey Sand
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MERCER COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
21-0088	USGS-HONEY BRANCH 10 OBS	40 21 28	074 46 13	179	20-150	231BRCK	08-22-85	12.0	--

LOCAL IDENTIFIER	DATE OF SAMPLE	PH (STANDARD UNITS)	HARDNESS (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)	CARBONATE IT-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)
USGS-HONEY BRANCH 10 OBS	08-22-85	7.7	200	44	22	2.1	1.3	222	--	182

LOCAL IDENTIFIER	DATE OF SAMPLE	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 DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
USGS-HONEY BRANCH 10 OBS	08-22-85	14	2.8	.30	12	210	<.010	.11	<.010	--

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
USGS-HONEY BRANCH 10 OBS	08-22-85	--	.020	10	1	2	<1	42	24	16

LOCAL IDENTIFIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
USGS-HONEY BRANCH 10 OBS	08-22-85	1	.1	31	3.4	--

Aquifer unit:
231BRCK - Brunswick Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MIDDLESEX COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
23-0291	MONROE MUA-FORSGATE 1 OB	40 21 09	074 30 13	107	192-203	211FRNG	12-04-84	12.0	41
23-0292	MONROE TWP MUA OBS 2-61	40 21 09	074 30 12	107	93-104	211ODBG	12-18-84	12.0	89

LOCAL IDENTIFIER	DATE OF SAMPLE	PH (STANDARD UNITS)	HARDNESS (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)	CARBONATE IT-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)
MONROE MUA-FORSGATE 1 OB	12-04-84	6.2	7	1.2	.92	3.3	1.4	7.0	--	8
MONROE TWP MUA OBS 2-61	12-18-84	6.5	22	4.2	2.7	5.5	1.4	56	--	48

LOCAL IDENTIFIER	DATE OF SAMPLE	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 DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
MONROE MUA-FORSGATE 1 OB	12-04-84	.8	3.0	<.10	14	29	<.010	1.2	<.010	1.2
MONROE TWP MUA OBS 2-61	12-18-84	2.1	2.7	<.10	13	66	<.010	<.10	<.070	<.10

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
MONROE MUA-FORSGATE 1 OB	12-04-84	--	<.010	10	<1	<1	1	5	450	9
MONROE TWP MUA OBS 2-61	12-18-84	--	.170	<10	<1	1	4	3	6700	3

LOCAL IDENTIFIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
MONROE MUA-FORSGATE 1 OB	12-04-84	15	<.1	24	.50	3
MONROE TWP MUA OBS 2-61	12-18-84	150	.2	24	1.4	<1

Aquifer unit:
211FRNG - Farrington aquifer, Potomac-Raritan-Magothy aquifer system
211ODBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MIDDLESEX COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. LAND SURF. FT. NGVD	SCREENED INTERVAL (FT.)	AQUIFER UNIT
23-135	OLD BRIDGE MUA	BROWNTOWN 2	402345	741832	95	190 - 248	211ODBG
23-135	OLD BRIDGE MUA	BROWNTOWN 2	402345	741832	95	190 - 248	211ODBG
23-145	OLD BRIDGE MUA	11-1972	402348	742050	30	80 - 120	211ODBG
23-146	OLD BRIDGE MUA	BROWNTOWN 3	402350	741834	80	435 - 480	211FRNG
23-146	OLD BRIDGE MUA	BROWNTOWN 3	402350	741834	80	435 - 480	211FRNG
23-147	OLD BRIDGE MUA	BROWNTOWN 4	402350	741840	80	425 - 475	211FRNG
23-782	OLD BRIDGE MUA	OLD BRIDGE 12	402353	742056	30	230 - 337	211FRNG
23-156	OLD BRIDGE MUA	10-1972	402353	742056	30	90 - 120	211ODBG
23-171	DUHERNAL W CO	DUHERNAL BF	402404	742204	20	240 - 300	211FRNG
23-172	DUHERNAL W CO	DUHERNAL 1	402404	742205	13	55 - 75	211ODBG
23-459	SCHWEITZER, P J	3R	402412	742248	35	58 - 68	211ODBG
23-522	SCHWEITZER, P J	11	402413	742241	25	53 - 63	211ODBG
23-177	DUHERNAL W CO	DUHERNAL 18	402414	742203	10	52 - 67	211ODBG
23-502	ANHEUSER BUSCH	BUSCH 7	402432	742215	38	210 - 260	211FRNG
23-054	ANHEUSER BUSCH	BUSCH 3	402432	742219	30	57 - 72	211ODBG
23-729	ANHEUSER BUSCH	BUSCH 10	402444	742257	20	50 - 60	211ODBG
23-063	E BRUNSWICK TWD	EBTWD 1	402501	742440	110	182 - 222	211FRNG
23-571	PERTH AMBOY W D	PERTH AMBOY 7	402528	741938	15	67 - 82	211ODBG
23-571	PERTH AMBOY W D	PERTH AMBOY 7	402528	741938	15	67 - 82	211ODBG
23-735	PERTH AMBOY W D	PERTH AMBOY 8	402528	741938	15	90*	211ODBG
23-735	PERTH AMBOY W D	PERTH AMBOY 8	402528	741938	15	90*	211ODBG
23-192	PERTH AMBOY W D	PERTH AMBOY 3	402535	742014	15	48 - 68	211ODBG
23-193	PERTH AMBOY W D	PERTH AMBOY 4	402536	742012	15	52 - 67	211ODBG
23-195	PERTH AMBOY W D	PERTH AMBOY 5	402537	742002	15	50 - 80	211ODBG
23-195	PERTH AMBOY W D	PERTH AMBOY 5	402537	742002	15	50 - 80	211ODBG
23-195	PERTH AMBOY W D	PERTH AMBOY 5	402537	742002	15	50 - 80	211ODBG
23-196	PERTH AMBOY W D	PERTH AMBOY 1A	402537	742020	20	201 - 261	211FRNG
23-570	PERTH AMBOY W D	PERTH AMBOY 6	402538	741950	15	60 - 80	211ODBG
23-570	PERTH AMBOY W D	PERTH AMBOY 6	402538	741950	15	60 - 80	211ODBG
23-570	PERTH AMBOY W D	PERTH AMBOY 6	402538	741950	15	60 - 80	211ODBG
23-197	PERTH AMBOY W D	PERTH AMBOY 2	402543	742010	20	205 - 260	211FRNG
23-551	SOUTH RIVER W D	SRWD 6	402548	742155	47	155 - 208	211FRNG
23-551	SOUTH RIVER W D	SRWD 6	402548	742155	47	155 - 208	211FRNG

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (UNITS)	SODIUM DISSOLVED (MG/L AS NA)	CHLORIDE DISSOLVED (MG/L AS CL)
23-135	OLD BRIDGE MUA	BROWNTOWN 2	10/24/1984	12.0	94	4.8	2.9	5.6
23-135	OLD BRIDGE MUA	BROWNTOWN 2	9/26/1985	12.5	99	5.6	---	5.3
23-145	OLD BRIDGE MUA	11-1972	3/22/1985	11.5	78	5.5	2.5	5.9
23-146	OLD BRIDGE MUA	BROWNTOWN 3	5/ 1/1985	15.5	48	5.7	1.9	2.6
23-146	OLD BRIDGE MUA	BROWNTOWN 3	9/26/1985	14.0	48	6.0	---	2.5
23-147	OLD BRIDGE MUA	BROWNTOWN 4	8/27/1985	13.5	47	5.8	1.7	2.6
23-782	OLD BRIDGE MUA	OLD BRIDGE 12	5/24/1985	13.5	72	5.2	1.7	2.4
23-156	OLD BRIDGE MUA	10-1972	8/27/1985	14.0	185	5.7	6.1	14
23-171	DUHERNAL W CO	DUHERNAL BF	8/ 5/1985	12.5	50	5.9	1.4	2.4
23-172	DUHERNAL W CO	DUHERNAL 1	3/20/1985	13.0	145	5.8	8.7	16
23-459	SCHWEITZER, P J	3R	3/22/1985	12.0	180	4.2	8.8	15
23-522	SCHWEITZER, P J	11	3/22/1985	13.0	239	4.7	18	23
23-177	DUHERNAL W CO	DUHERNAL 18	3/20/1985	12.0	182	6.2	8.1	16
23-502	ANHEUSER BUSCH	BUSCH 7	5/30/1985	13.5	68	5.8	3.1	3.7
23-054	ANHEUSER BUSCH	BUSCH 3	3/22/1985	12.0	132	4.5	8.9	18
23-729	ANHEUSER BUSCH	BUSCH 10	3/22/1985	11.5	181	4.5	15	25
23-063	E BRUNSWICK TWD	EBTWD 1	5/16/1985	13.0	96	5.6	5.6	8.8
23-571	PERTH AMBOY W D	PERTH AMBOY 7	4/11/1985	11.5	186	4.2	7.1	14
23-571	PERTH AMBOY W D	PERTH AMBOY 7	9/20/1985	11.5	164	4.4	---	11
23-735	PERTH AMBOY W D	PERTH AMBOY 8	4/11/1985	10.5	348	4.2	17	32
23-735	PERTH AMBOY W D	PERTH AMBOY 8	9/20/1985	11.5	312	4.4	---	28
23-192	PERTH AMBOY W D	PERTH AMBOY 3	11/ 1/1984	13.0	280	7.0	11	24
23-193	PERTH AMBOY W D	PERTH AMBOY 4	11/ 1/1984	12.5	266	5.6	15	64
23-195	PERTH AMBOY W D	PERTH AMBOY 5	10/17/1984	13.5	218	4.3	13	32
23-195	PERTH AMBOY W D	PERTH AMBOY 5	4/11/1985	12.5	233	4.4	14	37
23-195	PERTH AMBOY W D	PERTH AMBOY 5	9/20/1985	13.0	232	4.8	---	35
23-196	PERTH AMBOY W D	PERTH AMBOY 1A	9/20/1985	12.5	475	6.1	---	120
23-570	PERTH AMBOY W D	PERTH AMBOY 6	10/17/1984	12.0	214	3.9	10	19
23-570	PERTH AMBOY W D	PERTH AMBOY 6	4/11/1985	12.0	259	4.0	13	26
23-570	PERTH AMBOY W D	PERTH AMBOY 6	9/20/1985	11.5	278	4.2	---	29
23-197	PERTH AMBOY W D	PERTH AMBOY 2	10/17/1984	12.5	1,080	5.4	85	290
23-551	SOUTH RIVER W D	SRWD 6	10/11/1984	11.5	60	5.5	3.6	7.8
23-551	SOUTH RIVER W D	SRWD 6	9/25/1985	12.0	62	6.0	---	9.5

* Total depth of well.

Aquifer unit:

211ODBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system
211FRNG - Farrington aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MIDDLESEX COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. LAND SURF. FT. NGVD	SCREENED INTERVAL (FT.)	AQUIFER UNIT
23-069	C P S CHEMICAL		402552	742030	10	56 - 66	2110DBG
23-434	SOUTH RIVER W D	SRWD 2	402556	742141	20	173 - 198	211FRNG
23-434	SOUTH RIVER W D	SRWD 2	402556	742141	20	173 - 198	211FRNG
23-438	SOUTH RIVER W D	SRWD 5	402559	742142	20	132 - 182	211FRNG
23-438	SOUTH RIVER W D	SRWD 5	402559	742142	20	132 - 182	211FRNG
23-346	SAYREVILLE W D	SWD B	402604	742004	27	71 - 81	2110DBG
23-346	SAYREVILLE W D	SWD B	402604	742004	27	71 - 81	2110DBG
23-346	SAYREVILLE W D	SWD B	402604	742004	27	71 - 81	2110DBG
23-352	SAYREVILLE W D	SWD M (RECHARGE)	402605	741958	34	225 - 280	211FRNG
23-355	SAYREVILLE W D	SWD A	402614	741950	30	72 - 82	2110DBG
23-355	SAYREVILLE W D	SWD A	402614	741950	30	72 - 82	2110DBG
23-358	SAYREVILLE W D	SWD K	402617	741945	48	70 - 80	2110DBG
23-366	SAYREVILLE W D	SWD L	402624	741939	63	79 - 89	2110DBG
23-367	SAYREVILLE W D	SWD G	402624	741944	46	56 - 87	2110DBG
23-368	SAYREVILLE W D	SWD I	402626	741936	58	83 - 94	2110DBG
23-365	DUHERNAL W CO	DUH SAY 4	402633	742120	6	148 - 160	211FRNG
23-439	SOUTH RIVER W D	SRWD 2R	402633	742200	21	121 - 126	211FRNG
23-371	HERCULES	HERCULES 5	402638	742022	48	182 - 228	211FRNG
23-371	HERCULES	HERCULES 5	402638	742022	48	182 - 228	211FRNG
23-440	HODGES BUS CO	1	402648	742226	15	167 - 195	211FRNG
23-440	HODGES BUS CO	1	402648	742226	15	167 - 195	211FRNG
23-376	HERCULES	HERCULES 3	402649	742025	41	180 - 220	211FRNG
23-376	HERCULES	HERCULES 3	402649	742025	41	180 - 220	211FRNG
23-380	HERCULES	HERCULES 2	402659	742020	48	181 - 237	211FRNG
23-380	HERCULES	HERCULES 2	402659	742020	47	181 - 237	211FRNG
23-205	OLD BRIDGE MUA	LAWRENCE HAR 8	402700	741454	60	193 - 213	2110DBG
23-205	OLD BRIDGE MUA	LAWRENCE HAR 8	402700	741454	60	193 - 213	2110DBG
23-206	OLD BRIDGE MUA	LAWRENCE HAR 9	402700	741454	60	360 - 395	211FRNG
23-206	OLD BRIDGE MUA	LAWRENCE HAR 9	402700	741454	60	360 - 395	211FRNG
23-386	E I DUPONT	6	402701	741917	102	253 - 314	211FRNG
23-383	E I DUPONT	8A	402703	741859	97	97 - 116	2110DBG
23-383	E I DUPONT	8A	402703	741859	96	97 - 116	2110DBG
23-384	HERCULES	HERCULES 1	402705	742023	54	170 - 225	211FRNG
23-384	HERCULES	HERCULES 1	402705	742023	54	170 - 225	211FRNG

WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (UNITS)	SODIUM DISSOLVED (MG/L AS NA)	CHLORIDE DISSOLVED (MG/L AS CL)
23-069	C P S CHEMICAL		6/19/1985	12.5	252	4.0	7.2	14
23-434	SOUTH RIVER W D	SRWD 2	10/11/1984	13.0	115	4.6	6.3	14
23-434	SOUTH RIVER W D	SRWD 2	9/25/1985	13.0	95	5.6	---	13
23-438	SOUTH RIVER W D	SRWD 5	10/11/1984	12.0	84	5.4	4.7	12
23-438	SOUTH RIVER W D	SRWD 5	9/25/1985	12.5	86	5.9	---	12
23-346	SAYREVILLE W D	SWD B	10/16/1984	13.5	292	4.6	31	53
23-346	SAYREVILLE W D	SWD B	4/10/1985	12.0	265	4.7	27	48
23-346	SAYREVILLE W D	SWD B	9/20/1985	13.5	285	5.2	---	52
23-352	SAYREVILLE W D	SWD M (RECHARGE)	9/20/1985	13.5	3,180	6.2	---	960
23-355	SAYREVILLE W D	SWD A	10/16/1984	12.0	260	4.3	24	44
23-355	SAYREVILLE W D	SWD A	9/20/1985	14.5	268	4.8	---	53
23-358	SAYREVILLE W D	SWD K	9/20/1985	12.5	212	4.6	---	26
23-366	SAYREVILLE W D	SWD L	4/10/1985	11.0	152	4.2	6.7	11
23-367	SAYREVILLE W D	SWD G	4/22/1985	13.0	---	4.9	330	990
23-368	SAYREVILLE W D	SWD I	10/16/1984	13.0	390	4.0	6.5	11
23-365	DUHERNAL W CO	DUH SAY 4	11/ 2/1984	12.5	5,500	5.3	770	1,900
23-439	SOUTH RIVER W D	SRWD 2R	11/ 1/1984	13.0	750	5.0	77	200
23-371	HERCULES	HERCULES 5	10/25/1984	14.0	8,000	5.3	1,000	2,500
23-371	HERCULES	HERCULES 5	9/26/1985	---	8,700	---	---	2,900
23-440	HODGES BUS CO	1	10/12/1984	14.5	309	5.5	21	54
23-440	HODGES BUS CO	1	9/25/1985	14.5	345	5.9	---	70
23-376	HERCULES	HERCULES 3	10/25/1984	12.5	6,750	5.3	960	2,100
23-376	HERCULES	HERCULES 3	9/26/1985	---	8,600	---	---	2,900
23-380	HERCULES	HERCULES 2	10/25/1984	14.0	975	5.6	110	260
23-380	HERCULES	HERCULES 2	9/26/1985	---	1,270	---	---	350
23-205	OLD BRIDGE MUA	LAWRENCE HAR 8	10/24/1984	12.0	66	4.7	2.9	8.7
23-205	OLD BRIDGE MUA	LAWRENCE HAR 8	9/26/1985	12.5	76	5.6	---	12
23-206	OLD BRIDGE MUA	LAWRENCE HAR 9	10/24/1984	---	103	6.3	2.5	2.2
23-206	OLD BRIDGE MUA	LAWRENCE HAR 9	9/26/1985	13.5	63	6.3	---	1.9
23-386	E I DUPONT	6	10/15/1984	13.0	130	5.7	2.8	10
23-383	E I DUPONT	8A	10/17/1984	12.5	106	5.1	5.8	13
23-383	E I DUPONT	8A	3/21/1985	12.0	102	4.8	5.2	12
23-384	HERCULES	HERCULES 1	10/25/1984	14.5	845	5.6	83	210
23-384	HERCULES	HERCULES 1	9/26/1985	14.0	890	5.9	---	250

Aquifer unit:

2110DBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system
211FRNG - Farrington aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MIDDLESEX COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. LAND SURF. FT. NGVD	SCREENED INTERVAL (FT.)	AQUIFER UNIT
23-389	E I DUPONT	5	402710	741910	107	249 - 304	211FRNG
23-393	E I DUPONT	3	402715	741932	94	244 - 285	211FRNG
23-392	E I DUPONT	1	402716	741922	102	237 - 291	211FRNG
23-425	E I DUPONT	PARLIN 60F	402729	741937	147	282 - 288	211FRNG
23-425	E I DUPONT	PARLIN 60F	402729	741937	147	282 - 288	211FRNG
23-581	PARLIN SUPPLY CO	1	402734	742037	80	24 - 44	211ODBG
23-569	SAYREVILLE WD	SWD T	402738	741700	90	102 - 132	211ODBG
23-401	SAYREVILLE WD	SWD P	402744	741628	44	254 - 288	211FRNG
23-401	SAYREVILLE WD	SWD P	402744	741628	44	254 - 288	211FRNG
23-403	SAYREVILLE WD	SWD Q-1973	402745	741631	40	78 - 136	211ODBG
23-403	SAYREVILLE WD	SWD Q-1973	402745	741631	40	78 - 136	211ODBG
23-549	SAYREVILLE WD	SWD R	402745	741645	23	70 - 111	211ODBG
23-549	SAYREVILLE WD	SWD R	402745	741645	23	70 - 111	211ODBG
23-554	SAYREVILLE WD	SWD S	402745	741645	100	213 - 286	211FRNG
23-554	SAYREVILLE WD	SWD S	402745	741645	100	213 - 286	211FRNG
23-441	HERBERT SAND CO	HSC 3	402748	742306	6	49 - 52	211FRNG
23-080	HERBERT SAND CO	RANNEY WELL	402807	742351	28	18*	211FRNG
23-411	SOUTH AMBOY WD	SAWD 8	402822	741630	10	209 - 234	211FRNG
23-413	SOUTH AMBOY WD	SAWD 9	402824	741631	10	25 - 47	211ODBG
23-414	SOUTH AMBOY WD	SAWD 10	402825	741632	10	38 - 48	211ODBG
23-430	JERS CENTRAL PL	7-1972	402923	741651	12	135 - 165	211FRNG
23-462	UNION CARBIDE	CARBIDE 1	403043	741842	15	47 - 57	211FRNG
23-255	CARBORUNDUM CO	1	403046	741827	15	57 - 67	211FRNG
23-255	CARBORUNDUM CO	1	403046	741827	15	57 - 67	211FRNG
23-089	ALCOA	EDISON WRKS P1	403128	742051	70	26*	211FRNG
23-264	CHEVRON OIL CO	OBS 2	403200	741620	45	96 - 106	211FRNG
23-266	CHEVRON OIL CO	3	403212	741635	40	87 - 96	211FRNG
23-523	STANLEY CORP	2	403217	741641	50	47 - 61	211FRNG
23-473	HAAGEN DAZS INC	1	403233	741633	30	39 - 59	211FRNG
23-473	HAAGEN DAZS INC	1	403233	741633	30	39 - 59	211FRNG
23-478	AMER CYANAMID CO	CYANAMID 2A	403236	741616	9	45 - 60	211FRNG
23-478	AMER CYANAMID CO	CYANAMID 2A	403236	741616	9	45 - 60	211FRNG
23-543	SHELL OIL CO	5(S2)	403242	741526	25	42*	211FRNG
23-548	SHELL OIL CO	8(R7)	403257	741539	17	36*	211FRNG

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
23-389	E I DUPONT	5	10/15/1984	13.0	170	5.6	4.3	25
23-393	E I DUPONT	3	10/15/1984	13.5	1,070	5.5	71	270
23-392	E I DUPONT	1	10/15/1984	13.0	345	5.5	13	76
23-425	E I DUPONT	PARLIN 60F	10/17/1984	16.5	3,780	5.6	390	1,300
23-425	E I DUPONT	PARLIN 60F	9/25/1985	15.5	4,250	5.9	---	1,310
23-581	PARLIN SUPPLY CO	1	6/19/1985	15.0	563	4.5	45	96
23-569	SAYREVILLE WD	SWD T	10/18/1984	12.5	132	4.2	4.4	7.9
23-401	SAYREVILLE WD	SWD P	10/16/1984	13.0	62	5.9	2.1	2.9
23-401	SAYREVILLE WD	SWD P	9/20/1985	---	140	6.3	---	13
23-403	SAYREVILLE WD	SWD Q-1973	10/16/1984	13.0	225	4.2	16	28
23-403	SAYREVILLE WD	SWD Q-1973	9/20/1985	13.0	226	4.5	---	30
23-549	SAYREVILLE WD	SWD R	10/18/1984	12.5	155	4.3	9.2	18
23-549	SAYREVILLE WD	SWD R	4/10/1985	12.0	185	4.4	11	24
23-554	SAYREVILLE WD	SWD S	8/ 8/1985	12.5	58	5.8	2.6	3.0
23-554	SAYREVILLE WD	SWD S	9/20/1985	12.5	59	6.3	---	2.0
23-441	HERBERT SAND CO	HSC 3	4/17/1985	14.0	362	4.3	30	55
23-080	HERBERT SAND CO	RANNEY WELL	4/17/1985	11.5	168	4.7	11	22
23-411	SOUTH AMBOY WD	SAWD 8	10/12/1984	13.0	70	5.9	2.6	4.8
23-413	SOUTH AMBOY WD	SAWD 9	10/12/1984	12.0	193	4.2	13	24
23-414	SOUTH AMBOY WD	SAWD 10	10/12/1984	12.5	270	4.0	16	32
23-430	JERS CENTRAL PL	7-1972	10/30/1984	14.0	3,200	5.6	370	1,100
23-462	UNION CARBIDE	CARBIDE 1	8/23/1985	16.0	392	7.1	9.3	9.6
23-255	CARBORUNDUM CO	1	10/26/1984	13.5	280	6.8	7.4	7.7
23-255	CARBORUNDUM CO	1	4/12/1985	13.5	290	6.9	7.3	8.2
23-089	ALCOA	EDISON WRKS P1	4/10/1985	13.5	275	6.4	17	38
23-264	CHEVRON OIL CO	OBS 2	11/ 2/1984	13.0	293	6.5	10	7.4
23-266	CHEVRON OIL CO	3	4/16/1985	13.5	289	6.3	8.5	8.9
23-523	STANLEY CORP	2	4/12/1985	13.5	538	5.6	27	53
23-473	HAAGEN DAZS INC	1	10/26/1984	14.0	1,100	4.8	110	220
23-473	HAAGEN DAZS INC	1	4/21/1985	13.5	860	5.0	100	210
23-478	AMER CYANAMID CO	CYANAMID 2A	10/26/1984	15.0	970	5.3	76	170
23-478	AMER CYANAMID CO	CYANAMID 2A	4/12/1985	14.0	930	5.7	96	210
23-543	SHELL OIL CO	5(S2)	4/16/1985	14.5	760	8.0	120	51
23-548	SHELL OIL CO	8(R7)	4/16/1985	15.0	495	6.5	18	34

* Total depth of well

Aquifer unit:
211ODBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system
211FRNG - Farrington aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MONMOUTH COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
25-0250	GOR C WC-VILLAGE 215 OBS	40 19 18	074 15 29	138	185-215	211EGLS	08-28-85	13.0	214

LOCAL IDENTIFIER	DATE OF SAMPLE	PH (STANDARD UNITS)	HARDNESS (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)	CARBONATE IT-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)
GOR C WC-VILLAGE 215 OBS	08-28-85	7.0	80	29	1.8	2.0	2.3	92	--	76

LOCAL IDENTIFIER	DATE OF SAMPLE	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 DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
GOR C WC-VILLAGE 215 OBS	08-28-85	19	4.7	.50	40	150	<.010	<.10	.040	.20

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
GOR C WC-VILLAGE 215 OBS	08-28-85	--	.100	10	<1	<1	<1	1	4200	1

LOCAL IDENTIFIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
GOR C WC-VILLAGE 215 OBS	08-28-85	150	<.1	4	1.0	3

Aquifer unit:
211EGLS - Englishtown aquifer

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MONMOUTH COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. LAND SURF. FT. NGVD	SCREENED INTERVAL (FT.)	AQUIFER UNIT
25-029	BRIELLE WD	BWD 1	400644	740344	35	130 - 150	121CKKD
25-030	BRIELLE WD	BWD 2	400645	740345	33	690 - 750	211EGLS
25-233	MANASQUAN WD	MWD 6	400710	740329	10	180*	121CKKD
25-234	MANASQUAN WD	MWD 3	400712	740328	15	118*	121CKKD
25-235	MANASQUAN WD	MWD 2R	400712	740328	21	103 - 118	121CKKD
25-552	MANASQUAN WD	MWD 7	400712	740328	20	94 - 112	121CKKD
25-237	MANASQUAN WD	MWD 5	400714	740329	15	97 - 117	121CKKD
25-512	SEA GIRT WD	SGWD 7	400802	740230	21	92 - 124	121CKKD
25-383	SPRING LAKE WD	SLWD 1	400849	740207	15	631 - 711	211EGLS
25-387	SPRING LK HT WD	SPRING LK HGT1	400857	740309	60	570 - 600	211MLRW
25-391	SPRING LK HT WD	SPRING LK HGT4	400928	740211	20	485 - 560	211MLRW
25-386	SPRING LAKE WD	SLWD 4	400952	740149	15	600 - 670	211EGLS
25-023	BELMAR BORO WD	BWD 13	401040	740146	20	555 - 605	211EGLS
25-026	BELMAR BORO WD	BWD 4 ELEC(11)	401102	740045	15	601 - 671	211EGLS
25-014	AVON WATER DEPT	AWD 1	401138	740125	28	424 - 504	211MLRW
25-001	ALLENHURST WD	AWD 4	401401	740025	17	525 - 565	211EGLS
25-358	RED BANK WD	1B-1950	402047	740420	40	637 - 687	2110DBG
25-358	RED BANK WD	1B-1950	402047	740420	40	637 - 687	2110DBG
25-360	RED BANK WD	4-75	402054	740320	146	668 - 759	2110DBG
25-288	ABERDEEN TWP MUA	MATAWAN MUA 3	402349	741232	83	345 - 425	2110DBG
25-548	EMERY MANOR NUR HOME	1	402358	741338	92	210 - 220	2110DBG
25-292	ABERDEEN TWP MUA	MATAWAN MUA 1	402359	741233	87	341 - 414	2110DBG
25-117	HIGHLANDS WD	HWD 4	402401	735920	20	630 - 680	2110DBG
25-117	HIGHLANDS WD	HWD 4	402401	735920	20	630 - 680	2110DBG
25-295	MATAWAN BORO WD	MATAWAN BORO 2	402427	741348	20	228 - 258	2110DBG
25-294	MATAWAN BORO WD	MATAWAN BORO 1	402428	741345	20	222 - 252	2110DBG
25-294	MATAWAN BORO WD	MATAWAN BORO 1	402428	741345	20	222 - 252	2110DBG
25-006	ATLAN HIGH WD	AHWD 1	402437	740236	20	519 - 582	2110DBG
25-006	ATLAN HIGH WD	AHWD 1	402437	740236	20	519 - 582	2110DBG
25-496	ATLAN HIGH WD	AHWD 4	402441	740233	15	510 - 543	2110DBG
25-513	ATLAN HIGH WD	AHWD 5	402442	740242	20	506 - 548	2110DBG
25-153	W KEANSBURG W C	W KEANSBURG 4	402444	741010	65	635 - 690	211FRNG
25-153	W KEANSBURG W C	W KEANSBURG 4	402444	741010	65	635 - 690	211FRNG

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
25-029	BRIELLE WD	BWD 1	8/21/1985	---	163	6.9	---	3.7
25-030	BRIELLE WD	BWD 2	8/21/1985	20.0	185	8.0	---	1.2
25-233	MANASQUAN WD	MWD 6	8/21/1985	13.5	64	5.2	---	10
25-234	MANASQUAN WD	MWD 3	8/21/1985	13.0	93	4.9	---	14
25-235	MANASQUAN WD	MWD 2R	8/21/1985	13.5	96	4.9	---	15
25-552	MANASQUAN WD	MWD 7	8/21/1985	13.5	64	5.3	---	11
25-237	MANASQUAN WD	MWD 5	8/21/1985	13.5	66	5.2	---	11
25-512	SEA GIRT WD	SGWD 7	8/21/1985	13.5	75	5.9	---	11
25-383	SPRING LAKE WD	SLWD 1	8/20/1985	19.5	178	7.8	---	0.9
25-387	SPRING LK HT WD	SPRING LK HGT1	8/21/1985	17.5	188	8.0	---	1.3
25-391	SPRING LK HT WD	SPRING LK HGT4	8/21/1985	18.5	195	8.0	---	1.3
25-386	SPRING LAKE WD	SLWD 4	8/20/1985	19.0	176	7.6	---	1.0
25-023	BELMAR BORO WD	BWD 13	8/20/1985	19.5	188	7.9	---	0.8
25-026	BELMAR BORO WD	BWD 4 ELEC(11)	8/20/1985	19.5	183	7.8	---	0.9
25-014	AVON WATER DEPT	AWD 1	8/20/1985	17.5	237	8.0	---	1.7
25-001	ALLENHURST WD	AWD 4	8/20/1985	18.0	208	7.4	---	1.8
25-358	RED BANK WD	1B-1950	10/29/1984	17.5	---	6.3	1.5	1.7
25-358	RED BANK WD	1B-1950	9/18/1985	17.0	104	6.4	---	1.6
25-360	RED BANK WD	4-75	5/ 9/1985	17.0	103	7.1	1.4	2.1
25-288	ABERDEEN TWP MUA	MATAWAN MUA 3	10/29/1984	13.5	55	6.0	1.6	1.7
25-548	EMERY MANOR NUR HOME	1	8/20/1985	13.0	94	6.1	1.6	3.7
25-292	ABERDEEN TWP MUA	MATAWAN MUA 1	9/19/1985	13.5	57	6.3	---	2.3
25-117	HIGHLANDS WD	HWD 4	10/23/1984	20.0	103	6.3	1.7	1.2
25-117	HIGHLANDS WD	HWD 4	9/18/1985	19.5	102	6.4	---	1.1
25-295	MATAWAN BORO WD	MATAWAN BORO 2	10/23/1984	13.0	91	5.6	2.0	2.0
25-294	MATAWAN BORO WD	MATAWAN BORO 1	10/23/1984	13.5	94	5.6	2.0	1.8
25-294	MATAWAN BORO WD	MATAWAN BORO 1	9/19/1985	13.5	99	5.8	---	1.6
25-006	ATLAN HIGH WD	AHWD 1	10/29/1984	17.0	95	6.4	1.5	1.4
25-006	ATLAN HIGH WD	AHWD 1	9/18/1985	16.5	102	6.6	---	1.7
25-496	ATLAN HIGH WD	AHWD 4	10/29/1984	17.0	96	6.3	1.5	1.3
25-513	ATLAN HIGH WD	AHWD 5	9/18/1985	16.5	101	6.7	---	1.6
25-153	W KEANSBURG W C	W KEANSBURG 4	10/30/1984	15.0	76	6.2	2.4	2.5
25-153	W KEANSBURG W C	W KEANSBURG 4	9/19/1985	15.5	84	6.3	---	2.3

* Total depth of well.

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
211MLRW - Wenonah-Mount Laurel aquifer
211EGLS - Englishtown aquifer
2110DBG - Old Bridge aquifer,Potomac-Raritan-Magothy aquifer system
211FRNG - Farrington aquifer,Potomac-Raritan-Magothy-aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MONMOUTH COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. LAND SURF. FT. NGVD	SCREENED INTERVAL (FT.)	AQUIFER UNIT
25-154	W KEANSBURG W C	W KEANSBURG 3	402445	741019	73	400 - 430	211ODBG
25-154	W KEANSBURG W C	W KEANSBURG 3	402445	741019	73	400 - 430	211ODBG
25-282	BAYSHORE SEW AUTH	BAYSHORE 1	402507	741344	10	245 - 260	211ODBG
25-283	MATAWAN BORO WD	MATAWAN BORO 4	402514	741450	90	220 - 266	211ODBG
25-283	MATAWAN BORO WD	MATAWAN BORO 4	402514	741450	90	220 - 266	211ODBG
25-284	MATAWAN BORO WD	MATAWAN BORO 3	402515	741450	90	231 - 271	211ODBG
25-111	W KEANSBURG W C	W KEANSBURG 1	402532	740932	59	326 - 366	211ODBG
25-111	W KEANSBURG W C	W KEANSBURG 1	402532	740932	59	326 - 366	211ODBG
25-112	W KEANSBURG W C	W KEANSBURG 2	402537	740933	44	312 - 352	211ODBG
25-112	W KEANSBURG W C	W KEANSBURG 2	402537	740933	44	312 - 352	211ODBG
25-562	KEYPORT BORO WD	8	402539	741214	25	500 - 555	211FRNG
25-562	KEYPORT BORO WD	8	402539	741214	25	500 - 555	211FRNG
25-199	KERR GLASS CO	REPLACEMENT 2	402542	741220	20	285 - 315	211ODBG
25-199	KERR GLASS CO	REPLACEMENT 2	402542	741220	20	285 - 315	211ODBG
25-297	ABERDEEN TWP WD	MATAWAN TWP 1	402603	741422	80	447 - 487	211FRNG
25-466	ABERDEEN TWP WD	3-77	402610	741351	56	420 - 470	211FRNG
25-466	ABERDEEN TWP WD	3-77	402610	741351	56	420 - 470	211FRNG
25-191	KEANSBURG MUA	KWD 6	402620	740741	10	302 - 362	211ODBG
25-191	KEANSBURG MUA	KWD 6	402620	740741	10	302 - 362	211ODBG
25-190	KEANSBURG MUA	KWD 4	402621	740739	10	280 - 340	211ODBG
25-453	UNION BEACH WD	UBWD 3 1977	402632	741051	10	480 - 532	211FRNG
25-453	UNION BEACH WD	UBWD 3 1977	402632	741051	10	480 - 532	211FRNG
25-420	UNION BEACH WD	UBWD 2 1969	402634	741051	10	262 - 289	211ODBG
25-456	INT FLAVOR FRAG	IFF-3R	402640	740904	10	277 - 316	211ODBG
25-514	INT FLAVOR FRAG	IFF-2R	402641	740911	10	266 - 312	211ODBG
25-514	INT FLAVOR FRAG	IFF-2R	402641	740911	10	266 - 312	211ODBG
25-423	INT FLAVOR FRAG	IFF-1	402641	740919	10	298 - 328	211ODBG
25-423	INT FLAVOR FRAG	IFF-1	402641	740919	10	298 - 328	211ODBG
25-320	NAT PARK SERVICE	FT HANCOCK 5A	402705	735959	14	838 - 878	211FRNG
25-320	NAT PARK SERVICE	FT HANCOCK 5A	402705	735959	14	838 - 878	211FRNG
25-462	KEANSBURG AMUSE PK	1-69	402717	740816	10	200 - 250	211ODBG

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
25-154	W KEANSBURG W C	W KEANSBURG 3	10/30/1984	14.0	53	6.0	1.5	7.5
25-154	W KEANSBURG W C	W KEANSBURG 3	9/19/1985	13.5	63	6.2	---	2.2
25-282	BAYSHORE SEW AUTH	BAYSHORE 1	6/12/1985	16.0	126	6.4	28	46
25-283	MATAWAN BORO WD	MATAWAN BORO 4	4/30/1985	14.5	85	5.8	1.5	3.7
25-283	MATAWAN BORO WD	MATAWAN BORO 4	9/19/1985	14.0	90	5.8	---	3.1
25-284	MATAWAN BORO WD	MATAWAN BORO 3	10/23/1984	12.5	72	5.7	1.8	3.9
25-111	W KEANSBURG W C	W KEANSBURG 1	10/30/1984	13.5	64	6.1	1.4	1.6
25-111	W KEANSBURG W C	W KEANSBURG 1	9/19/1985	13.0	68	6.2	---	2.2
25-112	W KEANSBURG W C	W KEANSBURG 2	10/30/1984	14.0	67	6.0	1.4	1.6
25-112	W KEANSBURG W C	W KEANSBURG 2	9/19/1985	13.5	71	6.1	---	1.9
25-562	KEYPORT BORO WD	8	8/23/1985	14.5	74	6.3	2.1	3.6
25-562	KEYPORT BORO WD	8	9/20/1985	14.5	72	6.2	---	2.3
25-199	KERR GLASS CO	REPLACEMENT 2	10/25/1984	14.0	74	5.9	1.7	3.2
25-199	KERR GLASS CO	REPLACEMENT 2	9/20/1985	13.5	83	6.0	---	1.7
25-297	ABERDEEN TWP WD	MATAWAN TWP 1	10/29/1984	14.0	59	6.1	2.5	2.2
25-466	ABERDEEN TWP WD	3-77	5/29/1985	14.5	65	5.9	2.2	2.2
25-466	ABERDEEN TWP WD	3-77	9/19/1985	14.0	69	6.2	---	2.1
25-191	KEANSBURG MUA	KWD 6	10/31/1984	14.0	110	6.1	8.9	44
25-191	KEANSBURG MUA	KWD 6	9/23/1985	13.5	120	6.1	---	31
25-190	KEANSBURG MUA	KWD 4	9/23/1985	13.5	755	6.0	---	190
25-453	UNION BEACH WD	UBWD 3 1977	5/29/1985	15.0	83	6.3	---	2.5
25-453	UNION BEACH WD	UBWD 3 1977	9/23/1985	14.0	84	6.3	---	3.2
25-420	UNION BEACH WD	UBWD 2 1969	10/24/1984	13.0	6,000	5.3	710	2,300
25-456	INT FLAVOR FRAG	IFF-3R	9/20/1985	14.0	52	6.0	---	1.6
25-514	INT FLAVOR FRAG	IFF-2R	10/31/1984	15.0	49	5.7	1.3	1.6
25-514	INT FLAVOR FRAG	IFF-2R	9/20/1985	13.5	66	6.1	---	1.6
25-423	INT FLAVOR FRAG	IFF-1	10/31/1984	14.0	61	6.0	1.5	1.7
25-423	INT FLAVOR FRAG	IFF-1	9/20/1985	13.5	68	6.2	---	2.0
25-320	NAT PARK SERVICE	FT HANCOCK 5A	10/23/1984	19.5	129	6.6	4.7	5.6
25-320	NAT PARK SERVICE	FT HANCOCK 5A	9/18/1985	19.5	125	6.8	---	5.6
25-462	KEANSBURG AMUSE PK	1-69	8/ 7/1985	13.5	215	6.0	7.6	45

Aquifer unit:

211ODBG - Old Bridge aquifer,Potomac-Raritan-Magothy aquifer system
211FRNG - Farrington aquifer,Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

OCEAN COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
29-0019	USGS-ISLAND BEACH 3 OBS	39 48 29	074 05 35	9	2736-2756	211MRPA	12-12-84	25.5	2800

LOCAL IDENTIFIER	DATE OF SAMPLE	PH (STANDARD UNITS)	HARDNESS (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)	CARBONATE IT-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)
USGS-ISLAND BEACH 3 OBS	12-12-84	7.9	110	32	7.0	520	8.1	200	--	170

LOCAL IDENTIFIER	DATE OF SAMPLE	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 DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
USGS-ISLAND BEACH 3 OBS	12-12-84	3.3	850	1.4	14	1500	<.010	<.10	.800	.80

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
USGS-ISLAND BEACH 3 OBS	12-12-84	--	<.010	30	<1	<1	<1	<1	620	2

LOCAL IDENTIFIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
USGS-ISLAND BEACH 3 OBS	12-12-84	40	<.1	10	1.5	<1

Aquifer unit:
211MRPA - Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

OCEAN COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. LAND SURF. FT. NGVD	SCREENED INTERVAL (FT.)	AQUIFER UNIT
29-009	BEACH HAVEN WD	BHWD 8	393346	741430	5	572 - 656	122KRKDL
29-012	BEACH HAVEN WD	BHWD 7	393346	741434	5	572 - 665	122KRKDL
29-465	LITTLE EGG HMUA	HOLLY LAKE 4	393509	742048	20	308 - 329	122KRKDU
29-459	LONG BEACH WC	TERRACE 2	393510	741330	5	523 - 577	122KRKDL
29-597	TUCKERTON MUA	TMUA 5(OW2)	393610	742021	25	400 - 500	122KRKDL
29-563	TUCKERTON MUA	TMUA 4	393610	742031	10	463 - 497	122KRKDL
29-544	SHIP BOTTOM WD	SBWD 4	393839	741052	5	536 - 578	122KRKDL
29-549	SHIP BOTTOM WD	SBWD 5	393848	741053	5	527 - 588	122KRKDL
29-560	SURF CITY WD	SCWD 4	393938	741006	5	514 - 554	122KRKDL
29-561	SURF CITY WD	SCWD 5	393948	740954	10	521 - 562	122KRKDL
29-111	HARVEY CDRS WD	HCWD 4	394134	740832	9	465 - 500	122KRKDL
29-112	HARVEY CDRS WD	HCWD 3	394218	740808	5	451 - 493	122KRKDL
29-567	BARNEGAT WC	BARNEGAT 4	394520	741317	28	141 - 163	121CKKD
29-510	OCEAN TWP MUA	INDIAN SURF 3	394613	741215	8	126 - 151	121CKKD
29-019	US GEOL SURVEY	IS BEACH 3	394829	740535	9	2736 -2756	211MRPA
29-613	BERKELEY WC	PINEWALL	395248	741011	45	200*	121CKKD
29-022	SHORE WATER CO	SWC 1	395422	740458	7	175 - 200	121CKKD
29-023	SHORE WATER CO	SWC 2	395423	740458	7	493 - 530	124PNPN
29-697	ARLINGTON BEACH WC	ABWC 1	395443	740500	10	76 - 86	121CKKD
29-541	SEASIDE PARK WD	SPWD 2	395451	740455	10	477 - 517	124PNPN

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (UC/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
29-009	BEACH HAVEN WD	BHWD 8	3/ 5/1985	17.0	55	6.2	5.1	4.3
29-012	BEACH HAVEN WD	BHWD 7	3/ 5/1985	17.0	63	6.2	4.9	3.6
29-465	LITTLE EGG HMUA	HOLLY LAKE 4	3/ 6/1985	13.5	56	5.9	3.4	2.7
29-459	LONG BEACH WC	TERRACE 2	3/ 6/1985	17.0	55	5.9	3.5	3.8
29-597	TUCKERTON MUA	TMUA 5(OW2)	3/ 4/1985	13.0	61	5.8	3.3	5.5
29-563	TUCKERTON MUA	TMUA 4	3/ 4/1985	14.0	59	6.2	3.3	3.9
29-544	SHIP BOTTOM WD	SBWD 4	3/ 5/1985	16.0	60	6.1	4.4	3.7
29-549	SHIP BOTTOM WD	SBWD 5	3/ 5/1985	16.0	67	6.3	5.3	4.8
29-560	SURF CITY WD	SCWD 4	3/ 5/1985	16.5	61	6.2	4.8	3.6
29-561	SURF CITY WD	SCWD 5	3/ 5/1985	16.0	62	6.2	4.8	3.4
29-111	HARVEY CDRS WD	HCWD 4	3/ 7/1985	16.5	70	6.4	4.4	2.9
29-112	HARVEY CDRS WD	HCWD 3	3/ 7/1985	15.0	79	6.6	5.2	3.6
29-567	BARNEGAT WC	BARNEGAT 4	7/31/1985	13.5	55	4.7	---	6.2
29-510	OCEAN TWP MUA	INDIAN SURF 3	7/31/1985	13.0	56	4.8	---	6.8
29-019	US GEOL SURVEY	IS BEACH 3	12/12/1984	25.5	2,800	7.9	520	850
29-613	BERKELEY WC	PINEWALL	7/31/1985	13.0	53	5.2	---	6.7
29-022	SHORE WATER CO	SWC 1	7/30/1985	14.0	58	5.8	---	4.8
29-023	SHORE WATER CO	SWC 2	7/30/1985	16.5	295	8.8	---	2.0
29-697	ARLINGTON BEACH WC	ABWC 1	7/30/1985	13.5	95	6.6	---	7.0
29-541	SEASIDE PARK WD	SPWD 2	7/30/1985	15.0	207	8.1	---	2.5

* Total depth of well.

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
122KRKDU - Rio Grande water-bearing zone of the Kirkwood Formation
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation
124PNPN - Piney Point aquifer
211MRPA - Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

OCEAN COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. LAND SURF. FT. NGVD	SCREENED INTERVAL (FT.)	AQUIFER UNIT
29-809	OCEAN GATE BORO WD	OGBWD 4	395527	740826	10	330 - 370	124PNPN
29-013	BEACHWOOD WD	BWD 4	395530	741220	60	67 - 99	121CKKD
29-582	SEASIDE PARK WD	6-77	395547	740434	12	435 - 485	124PNPN
29-515	PINE BEACH WATER UTL	PBWU 1	395558	741013	30	135 - 197	121CKKD
29-538	SEASIDE HGTS WD	SHWD 1R	395636	740439	5	144 - 175	121CKKD
29-617	SEASIDE HGTS WD	SHWD 5	395652	740442	5	175*	121CKKD
29-058	TOMS RIVER WC	TRWC 21	395715	741231	10	46 - 56	121CKKD
29-058	TOMS RIVER WC	TRWC 21	395715	741231	10	46 - 56	121CKKD
29-453	LAVALLETTE WD	LWD 4	395808	740416	5	1358 -1515	211MRPA
29-454	LAVALLETTE WD	LWD 2	395808	740421	5	1009 -1136	211EGLS
29-094	TOMS RIVER WC	DUGANS 24	395941	741209	75	105 - 125	121CKKD
29-100	NJWC OCEAN CO DIV	NORMANDY 3	395956	740344	8	1428 -1479	211MRPA
29-006	NJWC OCEAN CO DIV	BAY HEAD 6	400405	740244	10	778 - 818	211EGLS
29-524	PT PLEASANT WD	PPWD 7	400409	740406	8	1183 -1260	211MRPA
29-044	BRICK TWP MUA	FORGE POND 8	400430	740829	20	40 - 60	121CKKD
29-726	BRICK TWP MUA	FORGE POND 5	400432	740831	20	43 - 67	121CKKD
29-530	PT PLEASANT WD	PPWD 6	400454	740413	20	730 - 790	211EGLS
29-533	PT PLEASANT WD	PPWD 4	400501	740455	7	45 - 75	121CKKD
29-579	PT PLEASANT BCH WD	PPBWD 11	400512	740251	5	130 - 143	121CKKD
29-807	PT PLEASANT BCH WD	PPBWD 12	400536	740251	5	108 - 132	121CKKD

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT ANCE (UC/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
29-809	OCEAN GATE BORO WD	OGBWD 4	7/31/1985	14.0	165	7.7	---	3.8
29-013	BEACHWOOD WD	BWD 4	8/ 6/1985	13.0	61	4.9	---	11
29-582	SEASIDE PARK WD	6-77	7/30/1985	16.5	255	8.8	---	16
29-515	PINE BEACH WATER UTL	PBWU 1	7/31/1985	13.0	68	4.6	---	8.6
29-538	SEASIDE HGTS WD	SHWD 1R	7/30/1985	14.0	838	6.1	---	190
29-617	SEASIDE HGTS WD	SHWD 5	7/30/1985	14.5	130	5.8	---	21
29-058	TOMS RIVER WC	TRWC 21	11/ 7/1984	13.5	166	5.6	15	28
29-058	TOMS RIVER WC	TRWC 21	8/ 6/1985	13.0	150	5.8	---	21
29-453	LAVALLETTE WD	LWD 4	7/30/1985	24.0	187	7.6	---	1.7
29-454	LAVALLETTE WD	LWD 2	7/30/1985	21.0	398	8.5	---	2.5
29-094	TOMS RIVER WC	DUGANS 24	11/ 7/1984	13.0	138	4.4	9.8	18
29-100	NJWC OCEAN CO DIV	NORMANDY 3	8/ 1/1985	23.5	173	7.5	---	17
29-006	NJWC OCEAN CO DIV	BAY HEAD 6	8/ 1/1985	20.0	209	8.1	---	2.0
29-524	PT PLEASANT WD	PPWD 7	8/ 1/1985	24.5	153	7.1	---	3.1
29-044	BRICK TWP MUA	FORGE POND 8	8/ 6/1985	14.0	132	4.9	---	17
29-726	BRICK TWP MUA	FORGE POND 5	8/ 6/1985	13.5	194	5.5	---	31
29-530	PT PLEASANT WD	PPWD 6	8/ 1/1985	20.0	197	8.1	---	14
29-533	PT PLEASANT WD	PPWD 4	8/ 1/1985	13.0	177	5.2	---	15
29-579	PT PLEASANT BCH WD	PPBWD 11	8/ 1/1985	13.0	675	6.5	---	190
29-807	PT PLEASANT BCH WD	PPBWD 12	8/ 1/1985	14.0	1,100	6.6	---	270

* Total depth of well.

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
124PNPN - Piney Point Formation
211EGLS - Englishtown aquifer
211MRPA - Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

UNION COUNTY

NJ-WRD WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	AQUIFER UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)
39-0133	HATFIELD 2-OBS	40 37 26	074 16 23	40	32-233	231BRCK	07-02-85	13.0	452
39-0102	WHITE LAB 3 OBS	40 40 27	074 16 44	85	49-251	231BRCK	07-03-85	15.0	735
39-0119	UNION COUNTY PARK OBS	40 41 06	074 17 19	69	290*	231BRCK	07-02-85	12.5	585

LOCAL IDENTIFIER	DATE OF SAMPLE	PH (STANDARD UNITS)	HARDNESS (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)	CARBONATE IT-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)
HATFIELD 2-OBS	07-02-85	7.6	210	60	14	9.6	.70	212	--	174
WHITE LAB 3 OBS	07-03-85	7.4	350	120	13	13	1.0	405	--	338
UNION COUNTY PARK OBS	07-02-85	7.8	250	72	17	18	1.0	124	--	104

LOCAL IDENTIFIER	DATE OF SAMPLE	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 DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
HATFIELD 2-OBS	07-02-85	36	18	<.10	22	260	<.010	1.9	.020	.30
WHITE LAB 3 OBS	07-03-85	31	32	<.10	18	430	<.010	<.10	<.010	.30
UNION COUNTY PARK OBS	07-02-85	170	13	<.10	19	370	<.010	3.1	<.010	.20

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
HATFIELD 2-OBS	07-02-85	2.2	.090	10	2	<1	<1	3	7	5
WHITE LAB 3 OBS	07-03-85	--	.080	<10	2	<1	<1	4	11	7
UNION COUNTY PARK OBS	07-02-85	3.3	.030	<10	2	<1	<1	1	11	5

LOCAL IDENTIFIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
HATFIELD 2-OBS	07-02-85	<1	<.1	20	1.2	1
WHITE LAB 3 OBS	07-03-85	1200	<.1	12	2.0	1
UNION COUNTY PARK OBS	07-02-85	2	<.1	9	1.4	<1

* Total depth of well

Aquifer unit:
231BRCK - Brunswick Formation

* U.S. GOVERNMENT PRINTING OFFICE:1986-614-426 / 0

October 1, 1978

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). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

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)
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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