Water Resources Data for New Jersey

Volume 2. Delaware River Basin and Tributaries to Delaware Bay

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-79-2

WATER YEAR 1979

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

CALENDAR FOR WATER YEAR 1979

1978

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
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NOVEMBER

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1979

JANUARY

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FEBRUARY

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JUNE

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JULY

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AUGUST

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SEPTEMBER

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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
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U.S GEOLOGICAL SURVEY WATER-DATA REPORT NJ-79-2

WATER YEAR 1979

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

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

Prepared in cooperation with

New Jersey Department of Environmental Protection
Division of Water Resources
Division of Fish, Game and Wildlife
New Jersey Department of Agriculture
Delaware River Basin Commission
Corps of Engineers, U.S. Army
U.S. Environmental Protection Agency
North Jersey District Water Supply Commission
Passaic Valley Water Commission
County of Bergen
County of Camden
County of Morris
County of Somerset
Township of West Windsor

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
P. O. Box 1238
Room 430, Federal Building
Trenton, New Jersey 08607

1980

PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the State of New Jersey and with other agencies by personnel of the New Jersey district of the Water Resources Division under the supervision of D. E. Vaupel, District Chief, and J. E. Biesecker, Regional Hydrologist, Northeastern Region.

This report is one of a series issued State by State under the general direction of Philip Cohen, Chief Hydrologist, U.S. Geological Survey and R. J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for New Jersey are in two volumes as follows:

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

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Water resources data for the 1979 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 27 gaging stations; tide summaries for 3 stations; stage and contents for 16 lakes and reservoirs; water quality for 86 surface water sites and 65 wells; and water levels for 16 observation wells. Also included are data for 27 crest-stage partial-record stations and 25 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

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ILLUSTRATIONS

TABLES

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

GROUND WATER STATIONS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED

INTRODUCTION

Water resources data for the 1979 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 27 gaging stations; tide summaries for 3 stations; stage and contents for 16 lakes and reservoirs; water quality for 86 surface water sites, and 65 wells; and water levels for 16 observation wells. Also included are data for 27 crest-stage partial-record stations and 25 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 the U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through water year 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an offical Survey report on a State-boundary basis. These offical Survey reports carry 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 of the report is identified as "U.S. Geological Survey Water-Data Report NJ-79-2."

For archiving and general distribution, the reports for water years 1971-74 are also 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) 989-2162.

COOPERATION

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

New Jersey Department of Environmental Protection, Jerry F. English, commissioner.
  Division of Water Resources, Arnold Schiffman, director.
  Division of Fish, Game and Wildlife, Russell A. Cookingham, director.
New Jersey Department of Agriculture, Phillip Alampi, secretary.
  Division of Rural Resources, Richard D. Chumney, director.
Delaware River Basin Commission, Gerald M. Hansler, executive director.
North Jersey District Water Supply Commission, Dean C. Noll, chief engineer.
Passaic Valley Water Commission, W.E. Inhoffer, general superintendent and chief engineer.
County of Bergen, V.J. Nunno, director of Public Works and E.R. Ranuska, county engineer.
County of Camden, Joseph T. Patermo, director 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 Corps of Engineers, U.S. Army, in collecting records for 50 surface water stations, and for the collection of sediment records at two stream-sampling station, and by the U.S. Environmental Protection Agency for the collection of chemical analyses at four stream-sampling 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 Survey.

Basic water-quality data collected at many sampling stations on the main stem of the Delaware River and estuary--an interstate stream--included in this report were collected in cooperation with the following additional agencies:

City of Philadelphia Water Department, Carmen Guarino, commissioner.
Pennsylvania Department of Environmental Resources, Maurice K. Goddard, secretary.
Delaware Geological Survey, Robert R. Jordan, State geologist.
Delaware River Master, Francis P. Schaefer.

The following organizations aided in collecting records:

Municipalities of Atlantic City, Jersey City, Newark and New Brunswick; American Cyanamid Co.; Elizabethtown Water Co.; Hackensack Water Co.; Johns-Manville Products Corp.; and Monmouth Consolidated Water Co.

Organizations that supplied data are acknowledged in station descriptions.

ACKNOWLEDGMENTS

The water resources data for New Jersey were processed and prepared for publication under the supervision of Robert D. Schopp, Acting Chief, Hydrologic Records Section, by G. R. Kish, E. W. Moshinsky, F. L. Schaefer, E. A. Pustay, S. J. Perry, C. L. Bellante, and I. C. Santana. The data were collected, computed, and processed by other personnel as follows:

J. B. Campbell	J. F. Dudek	D. A. Harriman	W. J. Pisch
G. L. Centinaro	D. K. Fishel	J. J. Hochreiter	C. L. Qualls
T. A. Chepiga	J. T. Fisher	W. D. Jones III	N. Rivera
R. S. Cole	T. V. Fusillo	D. W. Jungblut	R. L. Ulery
M. J. DeLuca	B. D. Gillespie	P. D. Kammler	A. J. Velnich
E. Dorr	J. W. Green	A. A. Meng	R. L. Walker

HYDROLOGIC CONDITIONS

In the beginning of 1979 water year, streamflow was within the normal range throughout New Jersey. But in January precipitation being as much as 300 percent of normal caused streams to rise unusually high. On January 21 and 25 mild temperatures and heavy rains in northern New Jersey (Morris Plains recorded about 4 inches of precipitation on January 25) caused heavy flooding in the Raritan and Delaware River basin, recording new peak stages or discharges at some sites. A cold spell in early February caused freezing but on February 24 heavy rains and ice jams again resulted in overbank flooding in northern New Jersey. Recurrence intervals exceeded 100 years at some sites. These floods and high runoff from storms in May and September resulted in above normal streamflow for the water year.

Monthly and annual discharge is compared with medians at three representative gaging stations in figures 2 and 3. The streamflow stations chosen for illustration were South Branch Raritan River near High Bridge and Great Egg Harbor River at Folsom, which reflect runoff conditions in the northern and southern parts of the State, respectively, and Delaware River at Trenton in which there is widespread interest.

Streamflow at South Branch Raritan River near High Bridge for the year averaged 167 ft^3/s (4.73 m^3/s), 138 percent of normal. The average flow for Great Egg Harbor River at Folsom was 113 ft^3/s (3.20 m^3/s), 130 percent of normal. The observed annual mean discharge on the Delaware River at Trenton was 13,770 ft^3/s (390.0 m^3/s), 117 percent of normal. The natural flow at Trenton (adjusted for diversion and storage upstream) was 128 percent of normal for the year.

Storage in the 13 major water-supply reservoirs in New Jersey increased from 56.5 billion gallons (75 percent of capacity) on October 1 to 67.9 billion gallons (90 percent of capacity) on September 30. Storage in Wanaque Reservoir increased from 17.5 billion gallons (63 percent of capacity) on October 1 to 24.2 billion gallons (87 percent of capacity) on September 30. Pumped storage in Round Valley Reservoir on September 30 was 54.5 billion gallons (99 percent of capacity), an increase of 2.1 billion gallons during the year.

Water levels in aquifers under water table conditions generally were above normal in the Coastal Plain portion of the State. Water levels in the heavily stressed artesian aquifers, however, continued to be lower than normal in the Coastal Plain. Continuing declines in water levels were most notable in the Englishtown aquifer and aquifers in the Potomac-Raritan-Magothy aquifer system down dip in the eastern areas. To the west water levels in most artesian aquifers have risen slightly since record lows were established near the end of the 1977 water year. North of the Fall Line water levels in water-table and semi-artesian aquifers varied from near normal to moderately below normal.

DEFINITION OF TERMS

Terms related to streamflow, water-quality and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-pound Units to Metric 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 the primary energy donor in cellular life processes. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure 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 codes and geologic names of the formations in which the sampled wells are finished. The aquifer codes also appear in the column "Geologic Unit" in the ground-water quality tables:

112CPMY , CAPE MAY FORMATION, UNDIFFERENTIATED
112ERNS , CAPE MAY FORMATION, ESTURINE SAND FACIES

112PLCC , PLEISTOCENE-COHANSEY SAND, UNDIFFERENTIATED
121CNSY , COHANSEY SAND
121CKKD , COHANSEY SAND-KIRKWOOD FORMATION, UNDIFFERENTIATED
122KRKDU, KIRKWOOD FORMATION, UPPER SAND
122KRKD , KIRKWOOD FORMATION
122KRKDL, KIRKWOOD FORMATION, LOWER SAND
124MQVC , MANASQUAN-VINCENTOWN FORMATION, UNDIFFERENTIATED
124PNPN , PINEY POINT FORMATION
211MLRW , MOUNT LAUREL SAND-WENONAH FORMATION
211EGLS , ENGLISHTOWN FORMATION
211MGRR , POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM
211ODBG , MAGOTHY FORMATION, OLD BRIDGE SAND MEMBER
211FRNG , RARITAN FORMATION, FARRINGTON SAND MEMBER

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 land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, other 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. 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 which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 0.5°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 intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 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 ± 0.5°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 unconsolidated material 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, used for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the weight 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 meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for 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 the 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 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 quantity of organic matter which can be chemically oxidized in the presence of a strong oxidant.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common 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, and 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 feet per second per square mile ($ft^3/s/mi^2$, CFSM) 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.

Cubic foot per second (ft^3/s, cfs) is the rate of discharge representing a volume 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.

Depth of well:

Total depth of well is the maximum depth in feet below land surface datum (lsd) at which the well was originally finished. This depth may be slightly deeper than "depth to the bottom of sample interval" because many wells have a "tailpiece" or short length of casing installed below the well screen.

Total depth of hole is the total depth in feet below land surface datum to which the hole was drilled, regardless of the finished depth of the well.

Depth to the top of water-bearing zone is the depth in feet, based on the best available information which indicates the top of the water-bearing zone that is furnishing water to the well.

Depth to bottom of water-bearing zone is the depth in feet, based on the best available information which indicates the bottom of the water-bearing zone that is furnishing water to the well.

Depth to the top of sample interval is the uppermost point in a fully cased well at which water can enter the well. In bedded sediments this is usually the uppermost part of the screened interval. In some wells the top of the well screen is installed inside and a few feet above the bottom of the casing. Under these conditions the bottom of the casing is considered to be the top of the sample interval.

Depth to the bottom of sample interval is the lowermost point in a fully cased well at which water can enter the well.

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 discharge 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 µm 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.

Diversity index is a numerical expression of the evenness of distribution of aquatic organisms. The formula for diversity index is:

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

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

Drainage area of a stream at a specified 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 noted.

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 body of impounded surface water together with all tributary surface stream 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 gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is 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 attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

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

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 8-digit number.

Instantaneous flow rate is the flow rate at which water is removed from the well. Used with pump or flow period prior to sampling (see below) so that the exact volume of water pumped prior to sampling can be determined.

Land-surface datum is a datum plane that is approximately at the land surface at the 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.

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 substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synethetic detergent compounds.

Micrograms per gram (UG/G) is a unit expressing the concentration of a chemical element as the weight (micrograms) of the element sorbed per unit weight (gram) of sediment.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as weight (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 weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in Hem(1970).

National Geodetic Vertical Datum of 1929 (NGVD), 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.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

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 meters (m^2), acres, or hectares. 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 milliliters (mL) or liters (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.

Partial-record station is a particular site where limited streamflow data are collected systematially over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by 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 active water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations 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 particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material 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 growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Since the first application of DDT as an insecticide in the early 1930's there have been almost 60,000 pesticide formulations registered, each containing at least one of the approximately 800 different basic pesticide compounds. The United States annually produces about 1 billion pounds of these compounds. Although efforts are being made to substitute many of the chlorinated hydrocarbon pesticides with more specific, fast-acting, and easily degradable compounds, chlorinated hydrocarbon pesticides are still commonly used in many areas of the country.

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

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

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

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter 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 (PCBs) 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 that the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/m^2/time for periphyton and macrophytes and mg O_2/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.

Pump or flow rate prior to sampling is used in conjunction with the instantaneous flow rate so that the exact volume of water pumped prior to sampling can be determined.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having an atomic weight of 35.453.

Radioisotopes that are determined in this report are natural uranium in µg/L (micrograms per liter), radium as radium-226 in PCI/L, (pCi/L, picocuries per liter), gross beta in PCI/L, and

gross alpha radiation as micrograms of uranium equivalent per liter (µg/L). Gross alpha and beta radioactivity associated with the fine grained (silt and clay sized) sediments in the samples are also determined.

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.

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.

Supended 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).

Suspended-sediment discharge (tons) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

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 weight or volume, that passes a section during a given time.

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

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content of the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos per cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

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

Substrate is the physcial surface upon which an organism lived.

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

Artificial substrate is a device which is purposely placed in a stream or lake for colonization by 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 multi-plate 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 that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

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 µm 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 would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm 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 hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexageria
Species.....Hexagenia limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperatures of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph or a digital mechanism that automatically records water temperature on paper tape.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

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 would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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 determines all of the constituent in the sample).

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 only 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.

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

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is being transported in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Unique well number is a hyphenated, 6-digit identification number which is assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) System. 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. These unique 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.

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.

WDR is used as an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports. Prior to 1976, WRD was used, which was the abbreviation for "Water-Resources Data."

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

DOWNSTREAM ORDER AND STATION NUMBER

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 main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of triburtaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. 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 8-digit number for each station such as 01463500, which appears just to the left of the station name, includes the 2-digit part number "01" plus the 6-digit downstream order number "463500."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

Miscellaneous downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The wells and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits is a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and a miscellaneous site are the same, they are assigned sequential numbers "01", "02", etc. as one would for wells. See figure 1 below.

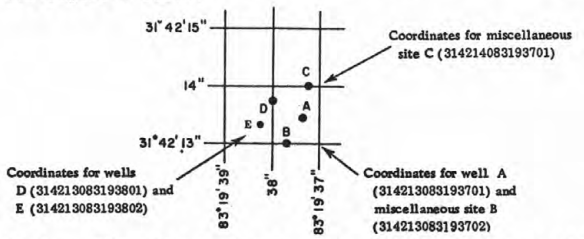

Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in stream where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

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.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are decribed in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. 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 computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by 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 determining 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 determining discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

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 discharge are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage height are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location for the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present stations or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations 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 revised figure was first published is given. It should be noted that for all stations for which cubic feet per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first the extremes for current year, second, the extremes for the period of record, and last information available outside the period of record. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest-stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the 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 lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

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 discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage 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. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data 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 observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures 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.

Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water record for the 5-year period October 1, 1965 to September 30, 1970, also will include lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Paper 1302; records for October 1950 to September 1960 have been compiled and published in Water-Supply Paper 1722; records for October 1960 to September 1965 have been compiled and published in Water-Supply Paper 1902; records for October 1965 to September 1970 have been compiled and published in Water-Supply Paper 2102. These reports contain summaries of monthly and annual discharge and month-end storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of stage or discharge collected by agencies other than the Geological Survey

Records of stage or discharge not published by the Geological Survey were collected in New Jersey at 30 sites during the water years October 1960 to current year by the following agencies: records at 4 sites were collected by the North Jersey District Water Supply Commission; at 14 sites by Passaic County, at 1 sites by the National Weather Service; at 3 sites by the National Ocean Survey; at 3 sites by the Corps of Engineers, and 5 sites by Delaware River Joint Toll Bridge Commission. The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintain an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads.

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for water-quality data, extremes of the pertinent data, and general remarks. For ground-water sampling stations, no descriptive statements are presented. However, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

Water-quality information is presented for chemical, biological, and microbiological quality, water temperature, and fluvial sediment. Chemical quality includes the concentrations of individual constituents and certain properties such as hardness, specific conductance, and pH. The biological information includes qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter present. Microbiological information includes quantitative identifications of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a water-quality noncontinuous-digital monitor furnishes hourly temperature readings that provide daily maximum, minimum, and mean temperature data summaries. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 g/ml (grams per

milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using table 1 below.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," and table for converting Inch-pound Units to International System Units, inside back cover).

Table 1.--Degrees Celsius (°C) to degrees Fahrenheit (°F)* (Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
0.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed at the end of this section. Analysis of pesticides, herbicides, and organic substances in water are described by Goerlitz and Brown. The collection and analysis of aquatic, biological and microbiological samples are described by Greeson and others.

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

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis.

For chemical-quality stations equipped with noncontinuous-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 U.S. Geological Survey district office (for address see Page IV).

Ground-water normally does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site. Water samples from wells are collected after prepumping the well and are analyzed individually.

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 surface-water stations. For daily stations, 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. Influential factors, field measurement, and data representation of temperature are described by Stevens, Ficke and Smoot.

Sediment

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

During periods of rapidly changing flow or rapidly changing concentration, samples may 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 loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment are included.

Remark codes for water-quality data

PRINTED OUTPUT	REMARK	PRINTED OUTPUT	REMARK
E	ESTIMATED VALUE	<	ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN
>	ACTUAL VALUE IS KNOWN TO BE GREATER THAN THE VALUE SHOWN	ND	MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED
K	RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT)		

Publications

Table 2 below, shows the annual series of water-supply papers that give information on quality of surface waters in New Jersey.

Table 2.--Water-supply paper (WSP) numbers, water years, 1945-70

Year	WSP	Year	WSP	Year	WSP
1945	1030	1954	1350	1963	1947
1946	1050	1955	1400	1964	1954
1947	1102	1956	1450	1965	1961
1948	1132	1957	1520	1966	1991
1949	1162	1958	1571	1967	2011
1950	1186	1959	1641	1968	2091
1951	1197	1960	1741	1969	2141
1952	1250	1961	1881	1970	2151
1953	1290	1962	1941		

Water-quality criteria

The Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500) stipulated that water-quality criteria were to be developed to assure the integrity of ground and surface waters of the United States. Criteria were set for various types of water use.

These criteria indicate limiting values of various parameters in water to provide adequate protection of water users, essential aquatic life, and consumers of such aquatic life.

Chemical constituents in bottom sediments (BTM) are reported as weight of constituent per weight of sediment. These limiting values are based not on health effects, but rather on the potential hazard which might be caused if these sediments were suspended into the water phase.

WATER QUALITY CRITERIA

Parameter name	Limiting value	Units	Use	Basis for selection
General Inorganics				
Alkalinity, Total (as $CACO_3$)	20*	mg/L	2	A
Antimony	50	µg/L	5	C
Antimony, BTM	500	µg/g	5	C
Arsenic	50	µg/L	4,6	A,B,C
	100	µg/L	3	A
Arsenic, BTM	200	µg/g	5	C
Barium	1000	µg/L	4,6	A,B,C
Barium, BTM	2000	µg/g	5	C
Beryllium	11	µg/L	2a	A,C
	100	µg/L	3	A
	1100	µg/L	2b	A
Beryllium, BTM	200	µg/g	5	C
Boron	750	µg/L	3	A
	1000	µg/L	5	C
Cadmium	0.4	µg/L	1a	A
	1.2	µg/L	1b	A
	4.0	µg/L	2a	A
	5.0	µg/L	8	A
	10	µg/L	4,6	A,B,C
	12	µg/L	2B	A
Cadmium, BTM	20	µg/g	5	C
Chloride	250	mg/L	6A	D
Chromium, total	50	µg/L	4,6	A,B,C
	100	µg/L	2	A
Chromium, BTM	200	µg/g	5	C
Color	15	color units	6a	D
	75	color units	4	A
Copper	1000	µg/L	4,6a	A,C,D
Copper, BTM	2000	µg/g	5	C
Cyanide	5	µg/L	2,8	A
	20	µg/L	5	C
Cyanide, BTM	100	µg/g	5	C
Fecal coliform, MF	200†	col/100 mL	7	A
Fecal coliform, MPN	200†	col/100 mL	7	A
Iron	300	µg/L	4,6a	A,D
	1000	µg/L	2	A
Lead, dissolved	50	µg/L	4,6	A,B,C
Lead, total	200	µg/L	5	C
Lead, BTM	500	µg/g	5	C
Manganese	50	µg/L	4,6a	A,D
Mercury	0.05	µg/L	2	A
	0.1	µg/L	8	A
	2	µg/L	4,6	A,B,C
Mercury, BTM	20	µg/g	5	C
Nickel	100	µg/L	2,8	A,C
Nickel, BTM	2000	µg/g	5	C
Nitrate (as N)	10	mg/L	4,6	A,B,C
Nitrite (as N)	1	mg/L	4	A,C
Oxygen, dissolved	5*	mg/L	2	A
pH	6.5-8.5		6a,8	A,C,D
	6.5-9.0		2	A
	5.0-9.0		4	A
Selenium	10	µg/L	4,6	A,B,C
Selenium, BTM	20	µg/g	5	C
Silver	50	µg/L	4,6	A,B,C
Silver, BTM	1000	µg/g	5	C
Solids, total dissolved	500	mg/L	6a	D
Sulfate	250	mg/L	6a	D
Zinc	5000	µg/L	4,6a	A,C,D
Zinc, BTM	5000	µg/g	5	C
Organics				
Aldrin-dieldrin	0.003	mg/L	2	A
Aldrin	0.01	mg/L	9	C
Aldrin, BTM	20	µg/kg	5	C
Chlordane	0.004	µg/L	8	A
	0.01	µg/L	2	A,C
Chlordane, BTM	20	µg/kg	5	C
DDT**	0.001	µg/L	2,8	A
	0.01	µg/L	9	C
DDT, BTM	20	µg/kg	5	C
Demeton	0.1	µg/L	2,8	A
Dieldrin	0.01	µg/L	9	C
Dieldrin, BTM	20	µg/kg	5	C

WATER QUALITY CRITERIA

Parameter name	Limiting value	Units	Use	Basis for selection
Endosulfan	0.001	µg/L	8	A
	0.003	µg/L	2	A
	0.01	µg/L	9	C
Endrin	0.004	µg/L	2,8	A
	0.01	µg/L	9	C
	0.2	µg/L	4,6	B
Endrin, BTM	20	µg/kg	5	C
Guthion	0.01	µg/L	2,8	A
Heptachlor	0.001	µg/L	2,8	A
	0.01	µg/L	9	C
Heptachlor, BTM	20	µg/kg	5	C
Heptachlor epoxide	0.01	µg/L	9	C
Heptachlor epoxide, BTM	20	µg/kg	5	C
Lindane	0.004	µg/L	8	A
	0.01	µg/L	2	A,C
	4	µg/L	4,6	A,B
Lindane, BTM	20	µg/kg	5	C
Malathion	0.1	µg/L	2,8	A,C
Malathion, BTM	20	µg/kg	5	C
MBAS (foaming agents)	0.5	mg/L	6a	D
Methoxychlor	0.03	µg/L	2,8	A,C
	100	µg/L	4,6	A,B
Methoxychlor, BTM	20	µg/kg	5	C
Mirex	0.001	µg/L	2,8	A
	.01	µg/L	9	C
Mirex, BTM	20	µg/kg	5	C
Parathion	0.04	µg/L	2,8	A,C
Parathion, BTM	20	µg/kg	5	C
PCB	0.001	µg/L	2,8	A
	0.1	µg/L	9	C
PCB, BTM	20	µg/kg	5	C
Phenols	1.0	µg/L	4	A
	5.0	µg/L	5	C
Toxaphene	0.005	µg/L	2,8	A
	1.0	µg/L	9	C
	5.0	µg/L	4,6	A,B
Toxaphene, BTM	20	µg/kg	5	C
Silvex	10	µg/L	4,6	A,B,C
Silvex, BTM	20	µg/kg		C
2, 4-D	100	µg/L	4,6	A,B,C
2, 4-D, BTM	20	µg/kg	5	C
Radiochemicals				
Radium 226	5	pCi/L	4,6	B,C
Strontium 90	8	pCi/L	4,6	B,C
Tritium	20,000	pCi/L	4,6	B,C
Gross alpha	15	pCi/L	4,6	B,C

* Minimum recommended value
† Log mean, based on not less than five samples
** Including metabolites (DDD and DDE)

Water Use and/or for the Protection of:

1a. Sensitive salmonoid species in soft water
1b. Sensitive salmonoid species in hard water
2. Freshwater aquatic life
2a. Freshwater aquatic life in soft water
2b. Freshwater aquatic life in hard water
3. Crop irrigation
4. Domestic water supply source
5. Recommended limits have not been established; limit set to arbitrarily flag no more than the upper 15 to 20 percent of values nationwide.
6. Potable drinking water, based on health effects
6a. Potable drinking water, based on aesthetic considerations
7. Primary contact
8. Marine aquatic life
9. Minimum non-zero concentration reported by the U.S. Geological Survey Central Water Quality Laboratories system.

Basis for Selection

A. Maximum levels recommended by: Quality Criteria for Water, 1976, U.S. Environmental Protection Agency.
B. Maximum contaminant level established by: National Interim Primary Drinking Water Regulations 1976, U.S. Environmental Protection Agency.
C. Suggested limiting value, U.S. Geological Survey, Quality of Water Branch.
D. Maximum contaminant level recommended for the Proposed Secondary Drinking Water Regulations, U.S. Environmental Protection Agency.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude (see figure 1) and (2) a local name and a unique well number that are provided for local needs.

Water-level measurements in this report are given in feet with reference to land-surface datum (LSD, lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above NGVD 1929, and the height of the measuring point (MP) above or below land-surface datum is given in each well description.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level data in these reports were obtained from water-level recorders, water-level extremes recorders, and from periodic manual measurements. The equipment used at each well is described in the well description under the listing "Instrumentation." Water levels in wells equipped with water-level recorders are reported for every fifth day and the end of each month (eom). 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 occurrance of the extremes (highest and lowest water levels) are unknown. In these reports the extreme water levels are given along with the interim dates in the well descriptions, and the manual only measurements are tabulated below the well descriptions.

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 in determining the absolute value of the total depth to water may be a few tenths of a foot, wheareas the error in determining the net change of water level between successive measurements may be only a hundredth of a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Publications

Table 3 below, shows the series of water-supply papers that give ground-water level data for New Jersey, 1935 to 1974. No water-level data were published in 1975. Beginning in 1976, ground-water level data for New Jersey have been published in these annual water data reports.

Table 3.--Water-supply paper (WSP) numbers, water years, 1935-74

Year	WSP	Year	WSP	Year	WSP
1935	777	1944	1016	1953	1265
1936	817	1945	1023	1954	1321
1937	840	1946	1071	1955	1404
1938	845	1947	1096	1956-57	1537
1939	866	1948	1126	1958-62	1782
1940	906	1949	1156	1963-67	1977
1941	936	1950	1165	1968-72	2140
1942	986	1951	1191	1973-74	2164
1943	986	1952	1221		

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U.S. Environmental Protection Agency, 1976, National Interim Primary Drinking Water Regulations: U. S. Environmental Protection Agency report EPA 570/9-76-003, 159 p.

U.S. Geological Survey, 1976, Surface water supply of the United States, 1966-70, Part 1. North Atlantic Slope basins, Volume 2. Basins from New York to Delaware: U.S. Geological Survey Water-Supply Paper 2102, 985 p., (most recent volume).

____1977, Ground-water levels in the United States, 1973-74, Northeastern States: U.S. Geological Survey Water-Supply Paper 2164, 126 p., (most recent volume).

Vecchioli, John, and Miller, E. G., 1973, Water Resources of the New Jersey part of the Ramapo River basin: U.S. Geological Survey Water-Supply Paper 1974, 77 p.

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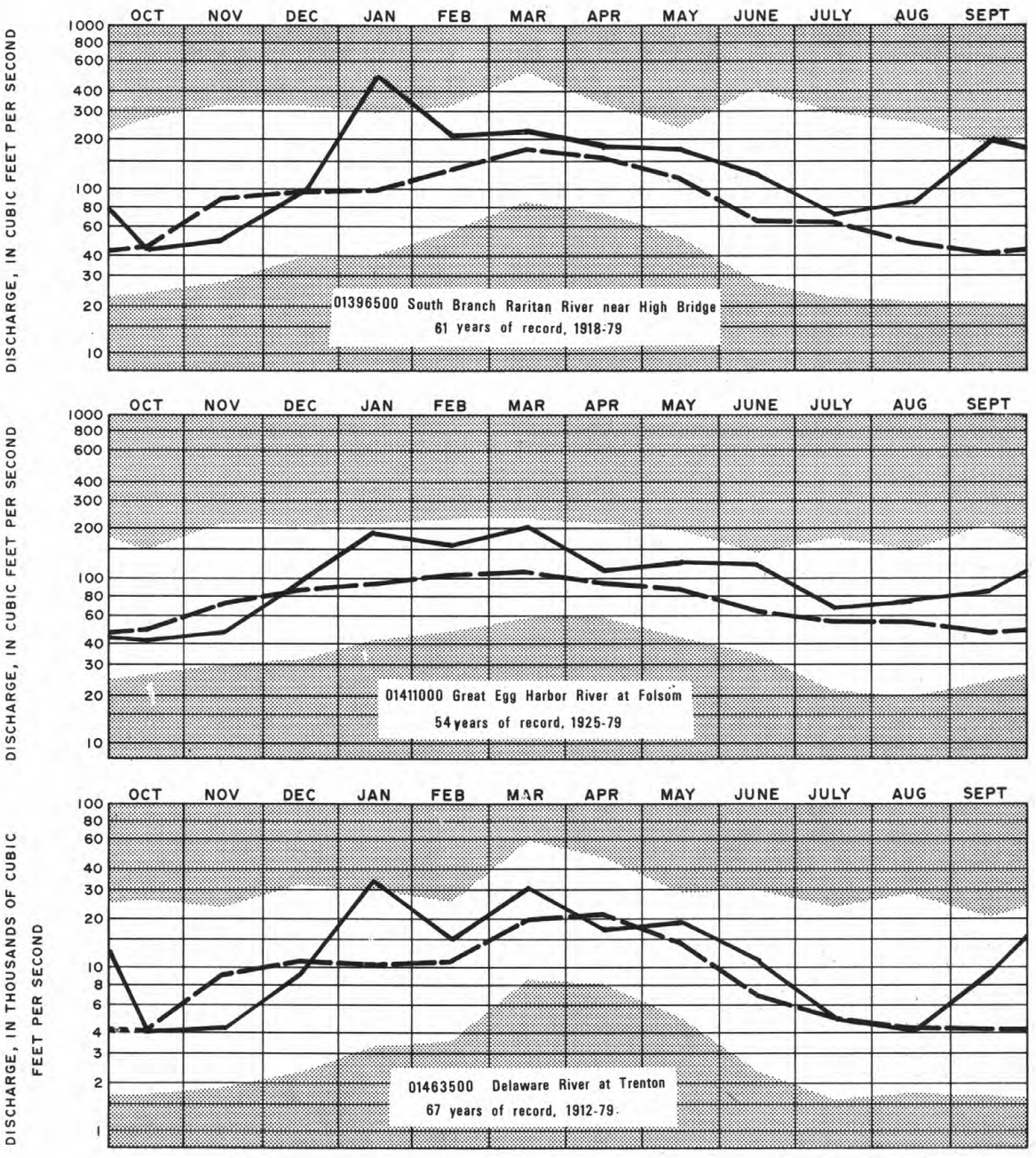
Vickers, A. A., and McCall, J. E., 1968, Surface water supply of New Jersey, Streamflow records 1961-65: New Jersey Division of Water Policy and Supply, Special Report 31, 351 p., (most recent volume).



Unshaded area.--Indicates range between highest and lowest mean recorded for the month prior to 1979 water year.

Dashed line.--Indicates normal (median of the monthly means) for the standard reference period 1941-70

Solid line.--Indicates observed monthly mean flow for the 1979 water year.

FIGURE 2.--MONTHLY STREAMFLOW AT KEY GAGING STATIONS

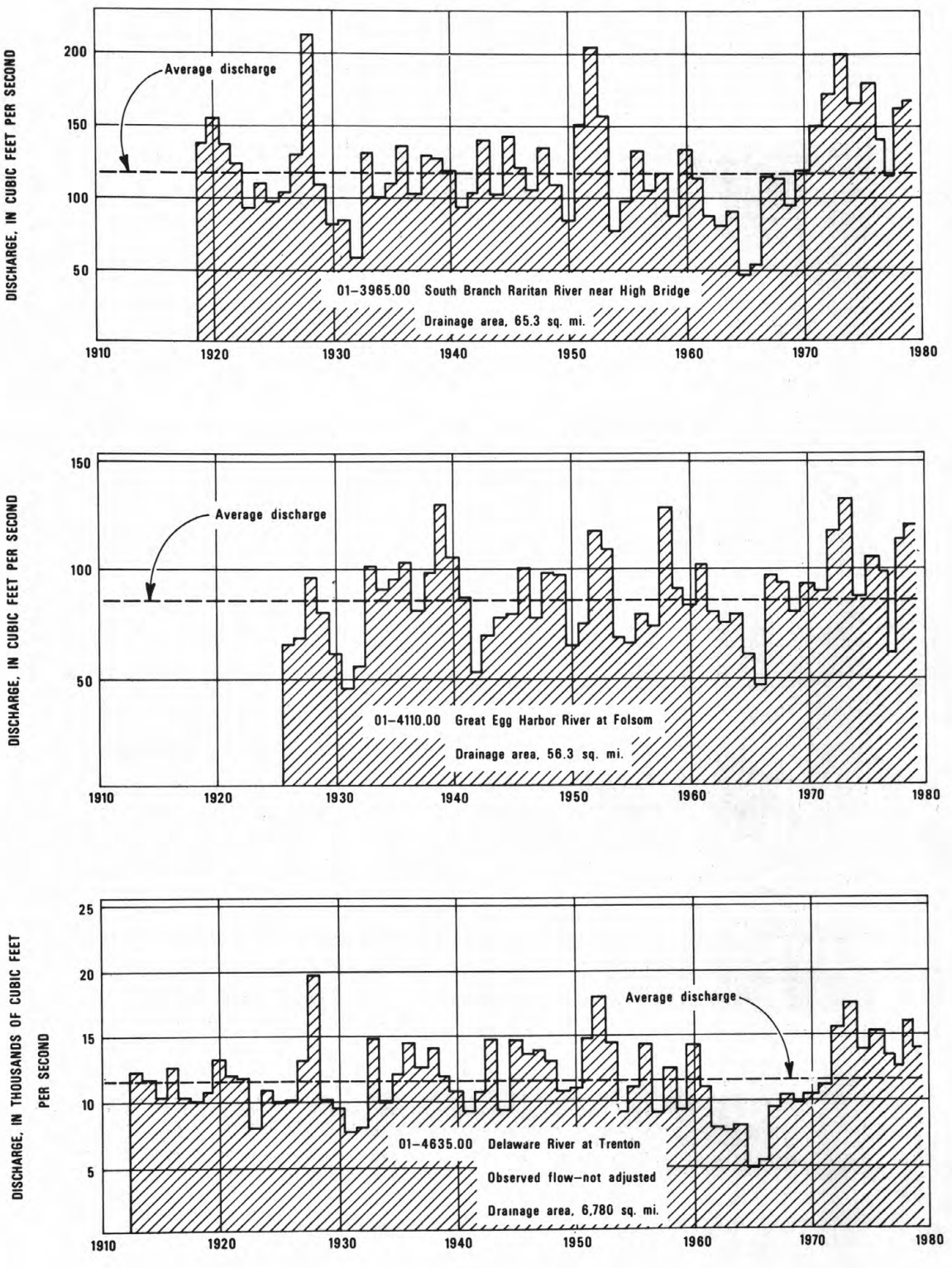


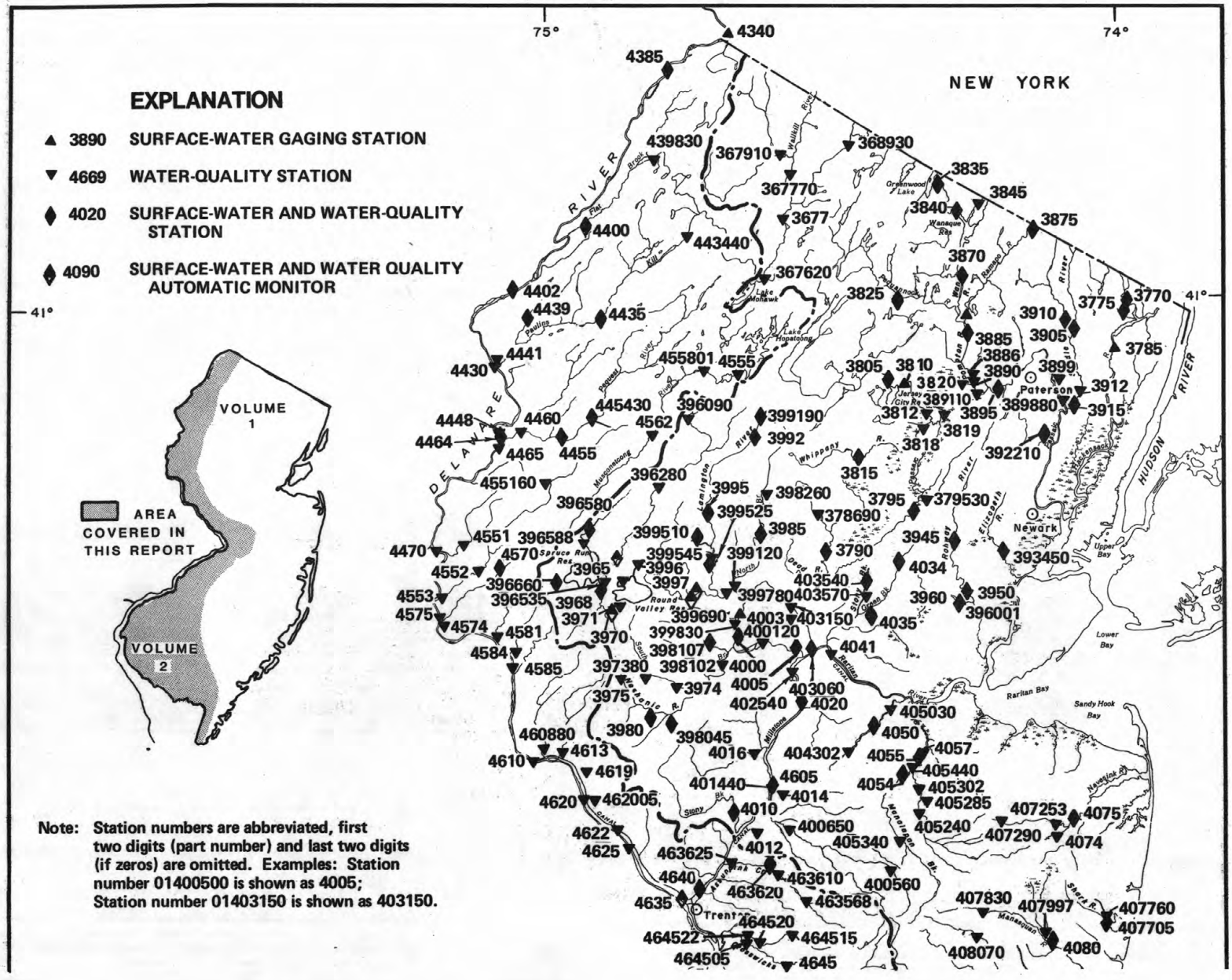
FIGURE 3.-- ANNUAL MEAN DISCHARGE AT KEY GAGING STATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 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-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
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.
4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
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.
5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
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-C1. *Laboratory theory and methods for sediment analysis,* by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
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.
7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 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.

WATER RESOURCES DATA FOR NEW JERSEY, 1979



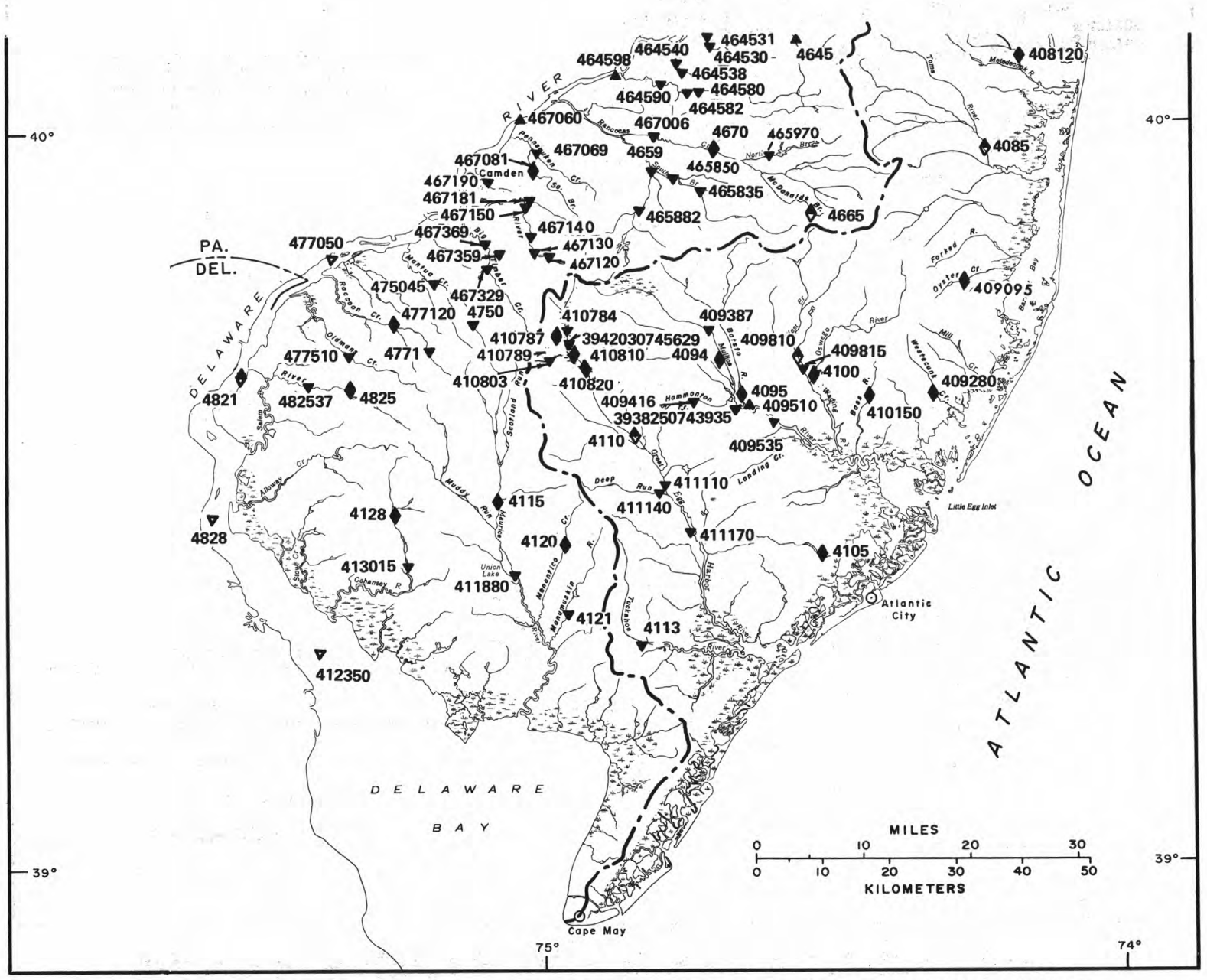
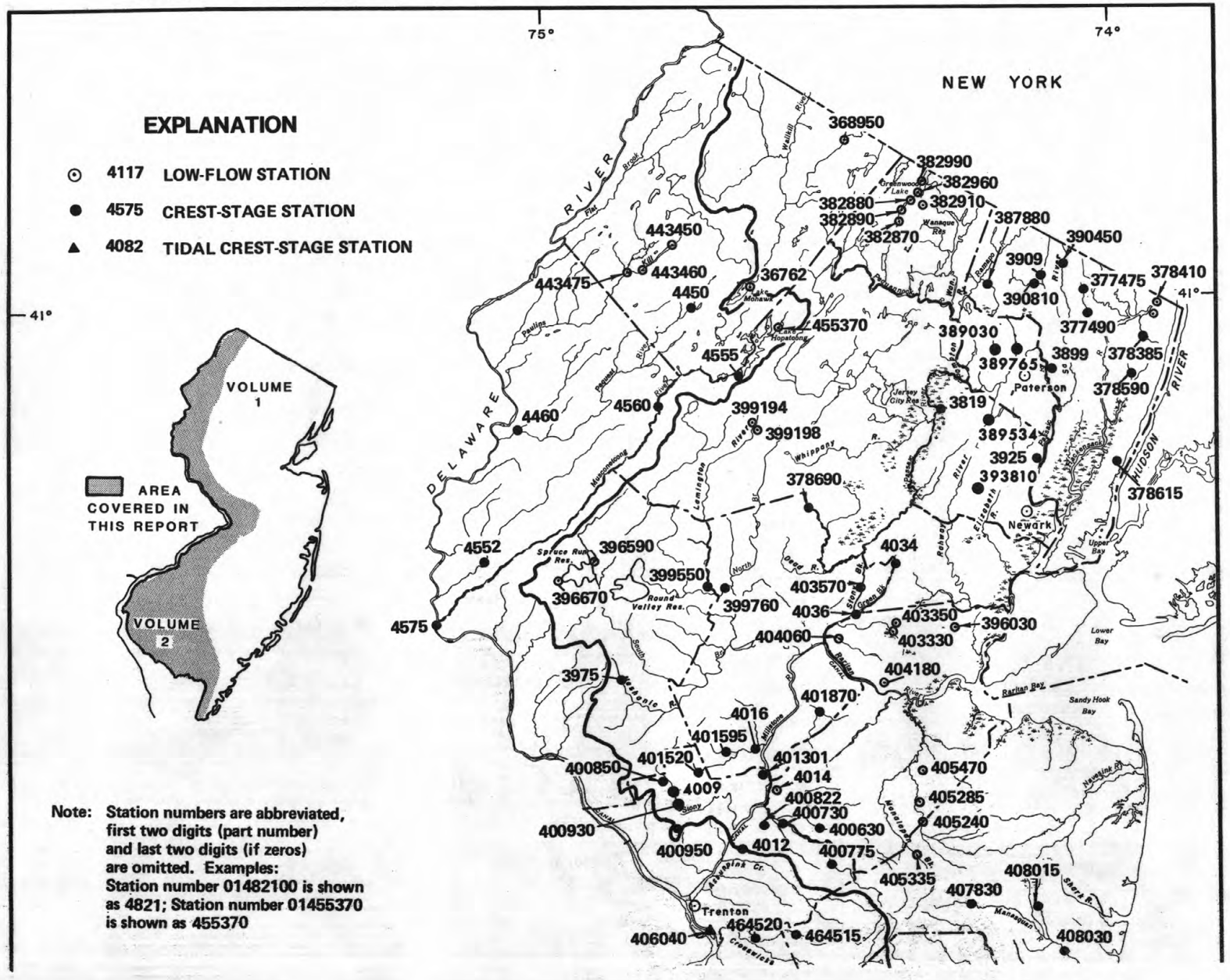


Figure 4.--Location of surface-water gaging stations and water-quality stations.

WATER RESOURCES DATA FOR NEW JERSEY, 1979



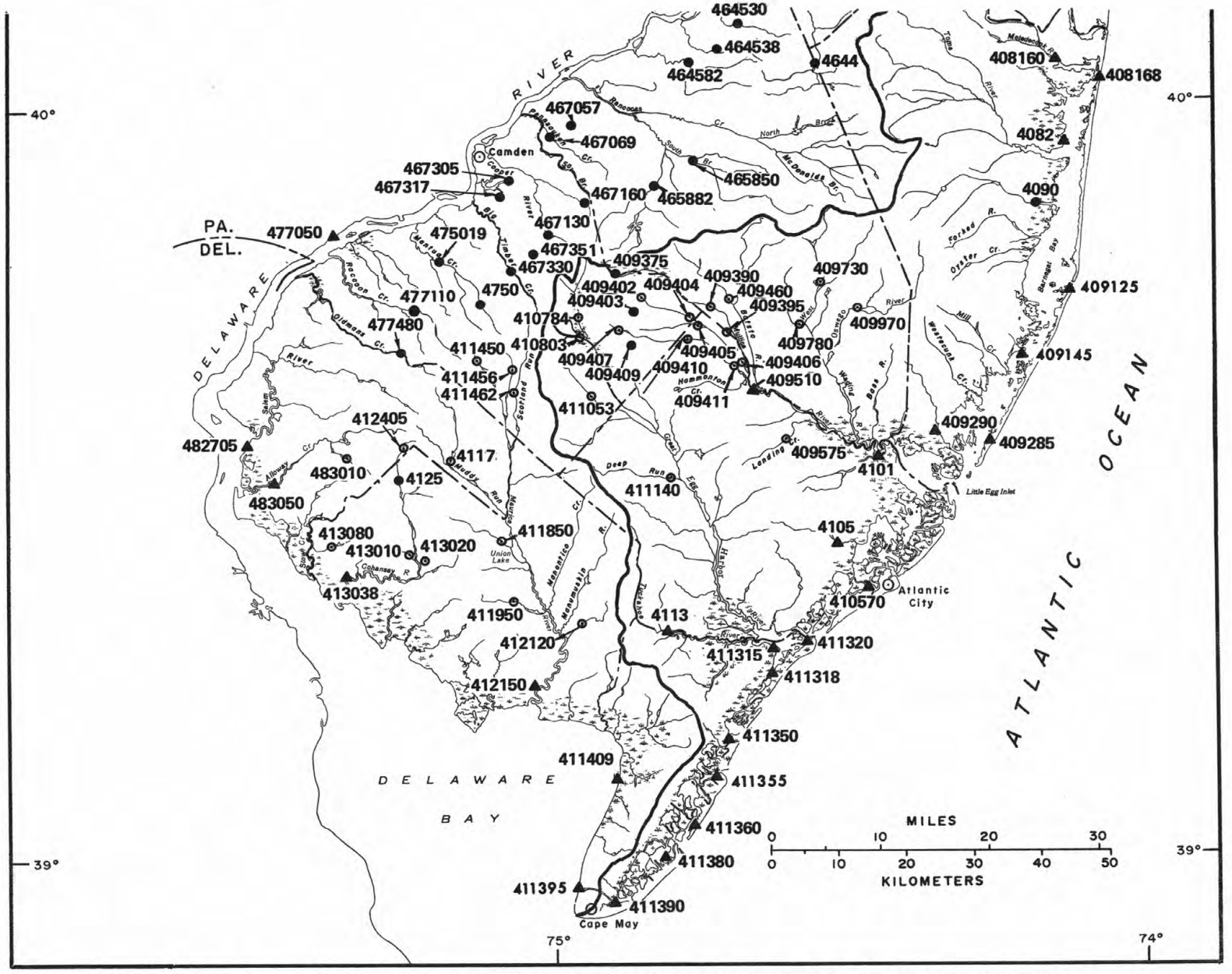
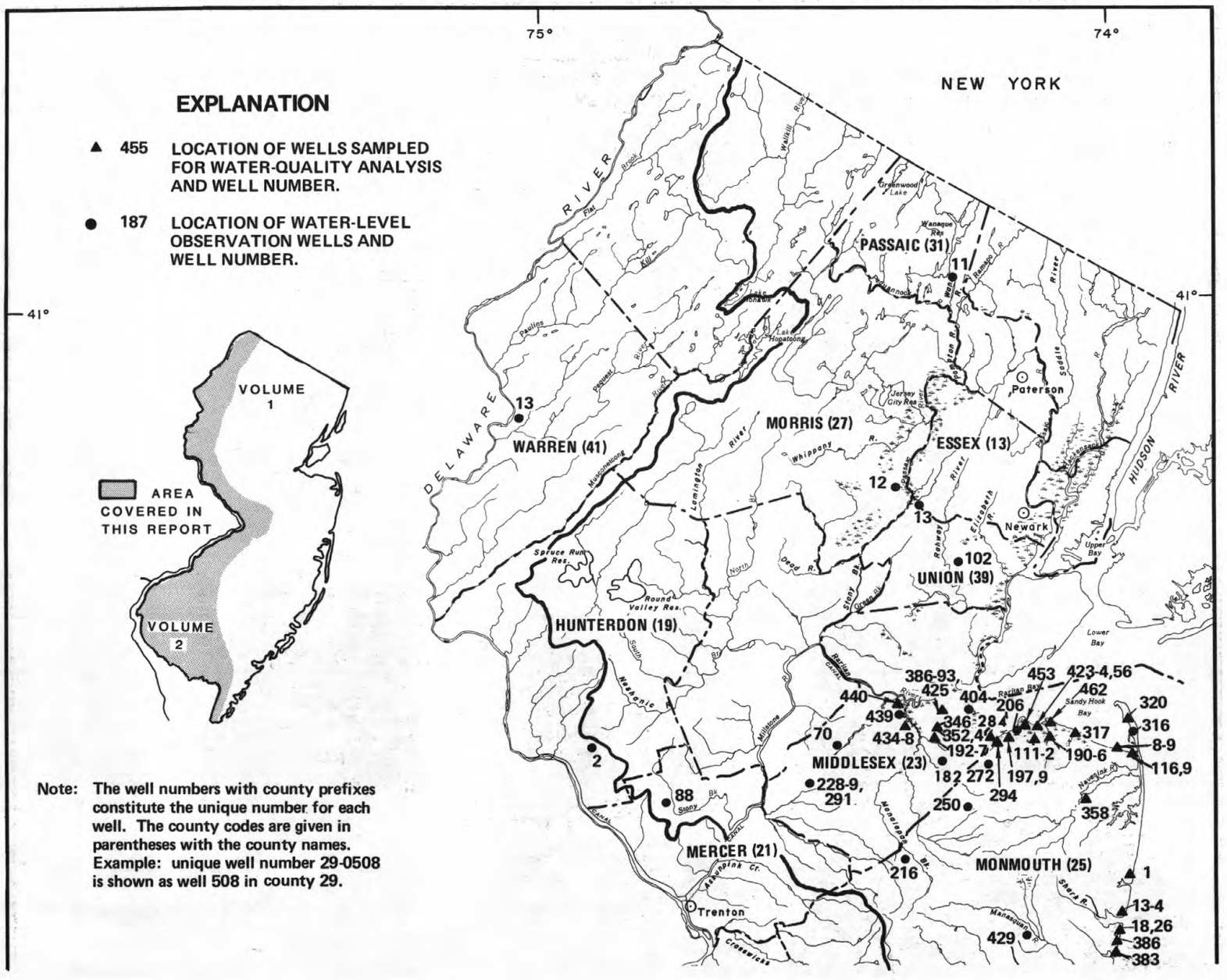


Figure 5.--Location of low-flow and crest-stage partial-record stations.

WATER RESOURCES DATA FOR NEW JERSEY, 1979



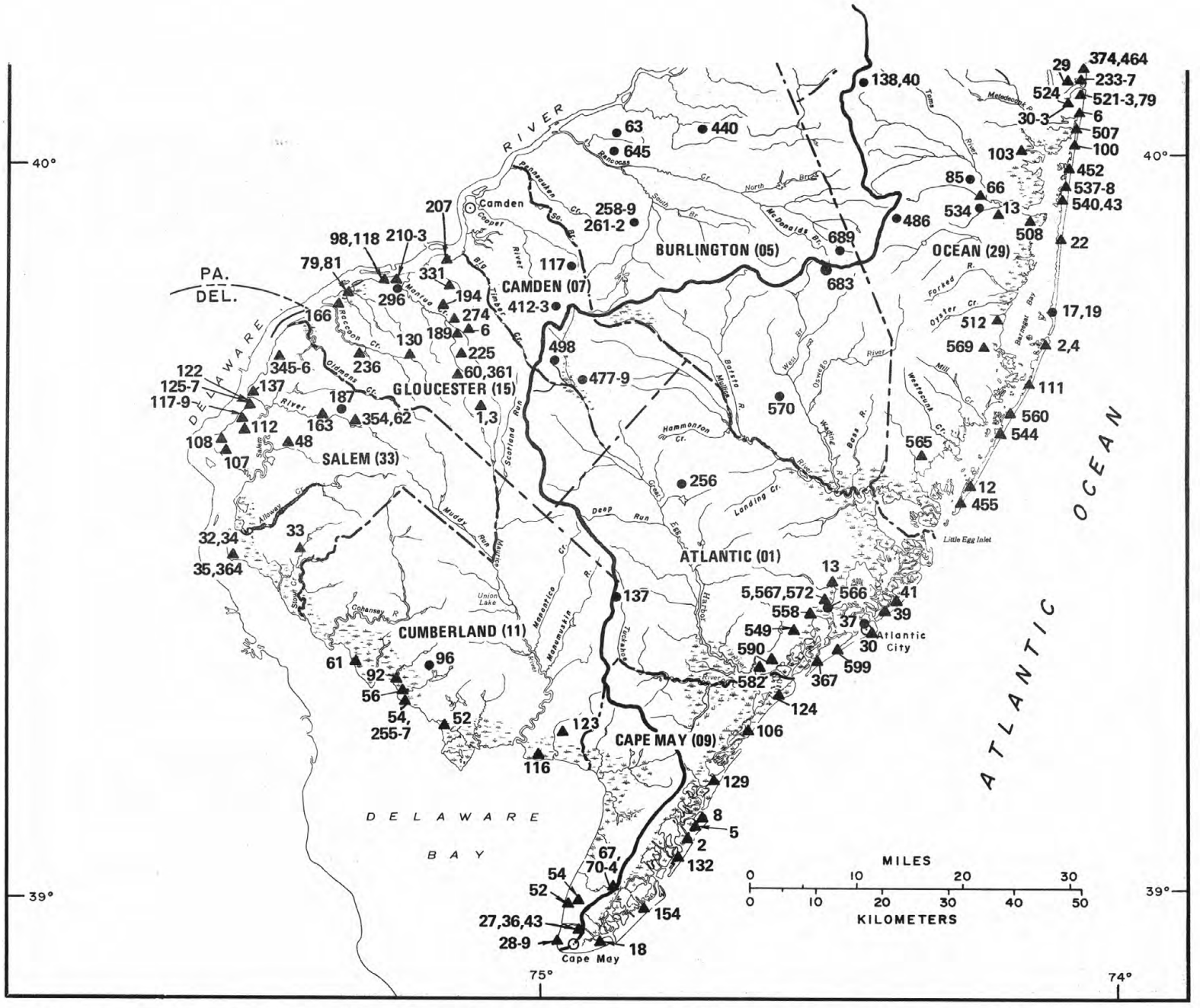


Figure 6.--Map showing location of ground-water quality stations and observation wells.

01411500 MAURICE RIVER AT NORMA, NJ
(National stream quality accounting network)

LOCATION.--Lat 39°29'42", long 75°04'38", Salem County, Hydrologic Unit 02040206, on right bank just upstream from Almond Road Bridge at Norma, and 0.8 mi (1.3 km) downstream from Blackwater Branch.

DRAINAGE AREA.--113 mi² (293 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1932 to current year. Monthly discharge only for December 1933, published in WSP 1302.

REVISED RECORDS.--WSP 1382: 1933.

GAGE.--Water-stage recorder. Concrete control since Dec. 27, 1937. Datum of gage is 46.94 ft (14.307 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Occasional regulation by ponds above station.

AVERAGE DISCHARGE.--47 years, 169 ft³/s (4.786 m³/s), 20.32 in/yr (516 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,360 ft³/s (208 m³/s) Sept. 2, 1940 (gage height, 8.72 ft or 2.658 m) from rating curve extended above 3,000 ft³/s (85 m³/s); minimum daily, 23 ft³/s (0.65 m³/s) Sept. 8, 1964, July 2, Sept. 7, 11-13, 1966.

REVISIONS.--Peak discharges of Aug. 4, 1967 (1300 hours) and Aug. 13, 1967 (0300 hours) have been revised to 616 ft³/s (17.4 m³/s), gage height, 3.86 ft (1.18 m), and 550 ft³/s (15.6 m³/s), gage height, 3.75 ft (1.14 m). They supersede figures published in the report for 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft³/s (10.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 25	0100	764	21.6	4.13	1.259	June 6	1200	392	11.1	3.47	1.058
Feb. 28	0100	*1510	42.8	5.09	1.551	June 14	2100	440	12.5	3.57	1.088
Mar. 7	0300	557	15.6	3.78	1.152	Aug. 28	1100	562	15.9	3.80	1.158
May 27	2200	397	11.2	3.48	1.06						

Minimum discharge, 72 ft³/s (2.04 m³/s) Oct. 16, gage height, 2.57 ft (0.783 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	76	130	145	292	1060	288	305	305	180	142	330
2	84	76	131	174	216	736	285	281	330	180	134	285
3	84	76	126	225	234	568	254	250	305	177	190	225
4	84	75	153	225	234	491	288	243	330	170	246	218
5	87	80	184	224	231	450	351	239	360	180	269	207
6	86	80	205	222	225	465	305	235	387	170	269	257
7	84	78	183	221	213	507	273	232	378	167	211	273
8	81	78	171	258	210	507	277	214	343	161	173	285
9	79	77	171	274	206	518	277	211	305	154	167	297
10	78	76	192	274	199	497	292	207	281	151	148	273
11	76	76	191	269	193	476	288	200	281	151	183	239
12	76	76	188	255	185	455	288	204	334	145	218	211
13	74	75	181	246	184	425	288	225	351	142	232	190
14	74	74	168	248	185	406	297	265	420	140	235	180
15	74	74	154	234	186	392	317	254	406	137	232	180
16	73	75	143	221	186	369	313	254	338	134	225	180
17	95	78	141	212	184	351	309	254	309	177	197	177
18	92	91	134	204	179	338	292	239	321	190	167	170
19	90	100	129	190	172	325	277	235	281	243	167	161
20	88	100	124	180	183	317	261	243	265	221	158	154
21	84	98	135	327	181	305	250	243	250	221	154	151
22	82	93	134	483	193	297	243	257	235	207	151	214
23	79	90	131	539	208	288	235	257	232	207	154	277
24	78	90	133	597	273	305	228	250	197	207	140	273
25	75	88	179	675	551	365	197	301	204	194	142	277
26	74	86	177	537	851	360	218	365	207	190	148	254
27	79	88	176	490	1350	360	273	383	204	177	170	225
28	80	105	173	454	1440	356	297	387	194	161	497	200
29	78	108	162	413	---	374	356	351	187	123	450	190
30	76	128	150	366	---	285	325	325	180	142	420	194
31	76	---	145	329	---	285	---	281	---	142	360	---
TOTAL	2500	2565	4894	9711	9144	13233	8442	8190	8720	5341	6749	6747
MEAN	80.6	85.5	158	313	327	427	281	264	291	172	218	225
MAX	95	128	205	675	1440	1060	356	387	420	243	497	330
MIN	73	74	124	145	172	285	197	200	180	123	134	151
CFSM	.71	.76	1.40	2.77	2.89	3.78	2.49	2.34	2.58	1.52	1.93	1.99
IN.	.82	.84	1.61	3.20	3.01	4.36	2.78	2.70	2.87	1.76	2.22	2.22

CAL YR 1978 TOTAL 71986 MEAN 197 MAX 788 MIN 73 CFSM 1.74 IN 23.70
WTR YR 1979 TOTAL 86236 MEAN 236 MAX 1440 MIN 73 CFSM 2.09 IN 28.39

01411500 MAURICE RIVER AT NORMA, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923, 1953, 1960-62, 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to January 1968.
SUSPENDED-SEDIMENT DISCHARGE: February 1965 to January 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
12...	1000	76	81	6.2	14.5	--	9.2	1.0	17	--	--
23...	1520	78	--	--	16.0	--	--	--	--	--	--
DEC											
01...	1210	128	--	--	6.0	--	--	--	--	--	--
FEB											
13...	1330	186	89	5.7	.5	--	12.0	1.0	5	--	--
APR											
03...	1015	246	77	5.9	12.5	2.0	8.9	1.6	33	41	K700
MAY											
14...	1045	265	74	6.2	18.5	3.0	6.3	1.7	--	--	--
JUN											
06...	1100	387	61	5.3	19.5	2.0	7.0	1.1	130	150	920
25...	1130	207	75	5.3	19.0	2.0	7.0	.9	--	58	1900
JUL											
25...	1030	197	72	5.0	24.5	2.0	6.0	--	170	200	2300
AUG											
08...	0830	170	78	5.0	23.5	3.0	5.8	1.1	--	79	1500
23...	0940	161	78	--	19.5	--	--	--	--	--	--
SEP											
27...	1030	225	69	4.7	17.0	2.0	7.3	1.1	240	140	800

DATE	STREP-TOCOCCI FECAL (MPN)	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)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT										
12...	240	17	3.5	2.1	5.8	2.0	7	0	6	7.7
23...	--	--	--	--	--	--	--	--	--	--
DEC										
01...	--	--	--	--	--	--	--	--	--	--
FEB										
13...	<2	20	4.1	2.3	5.3	1.8	8	0	7	11
APR										
03...	5	17	3.6	1.9	5.5	1.9	5	0	4	11
MAY										
14...	--	15	3.2	1.7	5.8	1.9	--	--	6	9.8
JUN										
06...	540	15	3.2	1.8	4.7	1.7	--	--	4	9.2
25...	--	17	3.6	2.0	6.8	1.6	--	--	7	11
JUL										
25...	13	18	3.8	2.1	8.6	2.3	--	--	7	8.5
AUG										
08...	--	16	3.3	1.8	5.7	1.7	--	--	1	8.1
23...	--	--	--	--	--	--	--	--	--	--
SEP										
27...	130	15	3.2	1.7	5.6	1.7	--	--	1	8.3

MAURICE RIVER BASIN

01411500 MAURICE RIVER AT NORMA, NJ--Continued

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
OCT										
12...	8.6	.1	5.7	52	1	.21	--	2.0	<.10	--
23...	--	--	--	--	2	.42	--	--	--	--
DEC										
01...	--	--	--	--	3	1.0	--	--	--	--
FEB										
13...	8.6	.1	7.0	60	2	1.1	--	2.5	<.10	--
APR										
03...	7.8	.0	2.8	56	8	5.3	27	1.4	.06	.47
MAY										
14...	7.7	.1	3.7	68	6	4.3	67	.99	.14	.77
JUN										
06...	7.0	.1	6.0	58	5	5.2	73	.77	.07	.59
25...	8.2	.1	6.1	69	6	3.4	67	1.1	.06	.52
JUL										
25...	8.2	.1	6.6	72	9	4.8	42	1.0	.04	.57
AUG										
08...	8.4	.1	6.9	81	62	28	8	.99	.05	.58
23...	--	--	--	--	5	2.2	--	--	--	--
SEP										
27...	9.0	.1	6.7	68	7	4.3	74	1.0	.07	.65

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT										
12...	1.5	--	--	3.5	--	.72	--	.69	6.2	--
23...	--	--	--	--	--	--	--	--	--	--
DEC										
01...	--	--	--	--	--	--	--	--	--	--
FEB										
13...	1.1	--	--	3.6	--	.30	--	.07	4.3	--
APR										
03...	.53	.06	.47	1.9	.04	.06	.04	.06	12	--
MAY										
14...	.91	.22	.69	1.9	.06	.18	.03	--	13	--
JUN										
06...	.66	.08	.58	1.4	.10	.10	.02	.31	--	14
25...	.58	.20	.38	1.7	.08	.25	.05	.25	14	--
JUL										
25...	.61	.03	.58	1.6	.06	.13	.04	.11	12	--
AUG										
08...	.63	.07	.56	1.6	.06	--	.03	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
SEP										
27...	.72	.13	.59	1.7	.05	.22	.03	.14	9.8	--

01411500 MAURICE RIVER AT NORMA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
JUN 06...	1100	180	180	70	0	70	2	0	2	20
AUG 08...	0830	180	180	100	30	70	1	0	1	20

DATE	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
JUN 06...	10	10	2	1	1	4	1	3	1100	390
AUG 08...	10	10	3	2	1	6	4	2	1400	1000

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
JUN 06...	710	7	7	0	40	10	30	<.5	.0	<.5
AUG 08...	390	10	10	0	40	10	30	<.5	<.0	<.5

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUN 06...	0	0	0	0	0	0	20	0	20
AUG 08...	0	0	0	0	0	0	30	25	5

DATE	LENGTH OF EXPO-SURE (DAYS)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
JUN 25...	18	1.10	.550	3.87	.240
JUL 25...	29	2.91	2.91	16.1	.640

01411500 MAURICE RIVER AT NORMA, NJ--Continued
PHYTOPLANKTON ANALYSES, OCTOBER 1978 TO SEPTEMBER 1979

DATE	JUN 6,79	JUN 25,79	JUL 25,79	AUG 8,79	SEP 27,79
TIME	1100	1130	1030	0830	1030
TOTAL CELLS/ML	13	170	720	570	39
DIVERSITY: DIVISION	0.0	0.4	1.0	1.1	0.9
.CLASS	0.0	0.4	1.0	1.1	0.9
..ORDER	0.0	1.3	1.0	1.1	0.9
...FAMILY	0.0	1.3	1.1	2.0	0.9
....GENUS	0.0	1.3	1.1	2.3	0.9

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	29	5	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	13°	100	--	-	13	2	110°	20	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	29	5	--	-
....TETRAEDRON	--	-	--	-	--	-	14	2	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	90°	54	77	11	200°	35	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	64°	38	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	--	-	--	-	13°	33
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	26	4	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	14	2	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	26°	67
...NITZSCHIACEAE										
....NITZSCHIA	--	-	--	-	13	2	14	2	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	13	8	--	-	--	-	--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	13	2	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	160°	27	--	-
....OSCILLATORIA	--	-	--	-	580°	80	--	-	--	-

NOTE: ° - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01411880 MAURICE RIVER AT SHARP STREET AT MILLVILLE, NJ

LOCATION.--Lat 39°24'01", long 75°03'15", Cumberland County, Hydrologic Unit 02040206, at bridge on Sharp Street in Millville, 200 ft (61 m) downstream from Union Lake dam.

DRAINAGE AREA.--218 mi² (565 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to 1979 (discontinued).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 12...	1130	90	7.0	16.0	9.9	1.9	13	<2	19	4.0

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 12...	2.2	7.4	2.3	12	0	10	.0	7.9	11	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 12...	5.4	60	1.4	.20	2.1	2.3	3.7	.28	.28	5.5

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 12...	1130	50	150	0	<10	3	1000

DATE	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 (UG/L)
OCT 12...	30	<.5	9	0	10	0

01412000 MENANTICO CREEK NEAR MILLVILLE, NJ
(Formerly published as Manantico Creek near Millville)

LOCATION.--Lat 39°25'12", long 74°58'00", Cumberland County, Hydrologic Unit 02040206, on right bank at upstream side of Mays Landing Road (Route 552), 0.9 mi (1.4 km) downstream of Menantico Lake, 4.0 mi (6.4 km) northeast of Millville, and 7.0 mi (11.3 km) upstream from mouth.

DRAINAGE AREA.--22.3 mi² (57.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1931 to September 1957, October 1977 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 36.63 ft (11.165 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--28 years (1931-57, 1978-79), 38.2 ft³/s (1.082 m³/s), 23.26 in/yr (591 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft³/s (29.7 m³/s) Aug. 20, 1939 (gage height, 6.21 ft or 1.893 m) from rating curve extended above 300 ft³/s (8.5 m³/s); minimum, 1.4 ft³/s (0.040 m³/s) Aug. 16-18, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 125 ft³/s (3.54 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 22	0315	264	7.48	3.65	1.112	Mar. 25	1315	133	3.77	2.43	0.741
Jan. 25	1430	110	3.12	2.36	0.719	May 14	2145	133	3.77	2.43	0.741
Feb. 25	1915	*519	14.7	5.11	1.558	June 2	1030	163	4.62	2.72	0.829
Mar. 7	1245	262	7.42	3.55	0.082	Aug. 4	0215	149	4.22	2.59	0.789
Mar. 9	1215	165	4.67	2.74	0.835						

Minimum discharge, 19 ft³/s (0.54 m³/s) Oct. 12, 13, 14, 16, 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	21	41	36	54	119	53	50	77	44	33	37
2	24	21	35	46	50	99	55	47	153	45	34	36
3	25	21	31	77	48	88	59	45	110	43	72	35
4	25	21	43	62	49	81	63	45	101	42	136	36
5	25	23	65	46	47	77	70	45	121	45	86	36
6	24	24	60	42	44	130	63	43	101	44	52	54
7	23	24	46	44	45	246	55	42	83	41	42	80
8	22	22	39	69	45	178	52	40	67	37	39	56
9	21	21	39	81	44	153	54	39	59	36	36	42
10	20	21	46	59	43	112	66	37	54	36	34	39
11	20	24	43	47	42	101	61	36	62	37	47	36
12	19	27	38	42	41	103	55	36	110	37	67	34
13	19	26	35	42	42	88	54	39	93	36	89	33
14	19	25	32	52	42	80	63	104	65	36	70	31
15	19	24	30	52	42	78	84	111	55	38	51	32
16	19	24	30	45	43	72	69	71	50	37	42	31
17	27	24	31	42	42	68	59	55	63	35	38	29
18	29	25	30	39	41	66	54	49	111	37	36	28
19	28	25	29	36	41	64	51	52	85	62	39	26
20	26	24	28	37	44	62	49	54	62	54	39	26
21	24	24	36	151	44	61	46	52	54	43	37	26
22	24	23	39	229	50	60	45	49	50	39	37	47
23	22	22	36	126	57	58	43	47	55	37	36	85
24	19	24	35	87	97	73	43	45	68	46	36	74
25	19	23	59	104	422	125	42	83	63	49	38	51
26	20	22	67	91	461	103	45	98	54	42	66	42
27	21	25	50	73	286	71	69	67	49	39	71	38
28	21	32	41	66	166	62	72	54	46	36	54	37
29	21	37	35	65	---	58	65	50	44	34	51	37
30	21	43	32	60	---	52	57	52	43	36	47	39
31	21	---	32	56	---	51	---	51	---	35	42	---
TOTAL	687	742	1233	2104	2472	2839	1716	1688	2208	1258	1597	1233
MEAN	22.2	24.7	39.8	67.9	88.3	91.6	57.2	54.5	73.6	40.6	51.5	41.1
MAX	29	43	67	229	461	246	84	111	153	62	136	85
MIN	19	21	28	36	41	51	42	36	43	34	33	26
CFSM	1.00	1.11	1.79	3.05	3.96	4.11	2.57	2.44	3.30	1.82	2.31	1.84
IN.	1.15	1.24	2.06	3.51	4.12	4.74	2.86	2.82	3.68	2.10	2.66	2.06

CAL YR 1978 TOTAL 16137 MEAN 44.2 MAX 233 MIN 19 CFSM 1.98 IN 26.92
WTR YR 1979 TOTAL 19777 MEAN 54.2 MAX 461 MIN 19 CFSM 2.43 IN 32.99

01412800 COHANSEY RIVER AT SEELEY, NJ

LOCATION.--Lat 39°28'21", long 75°15'21", Cumberland County, Hydrologic Unit 02040206, on right bank just downstream from bridge on Silver Lake Road, 0.6 mi (1.0 km) south of Seeley, 2.6 mi (4.2 km) east of Shiloh, 4.1 mi (6.6 km) north of Bridgeton, and 22.5 mi (36.2 km) upstream from mouth.

DRAINAGE AREA.--28.0 mi^2 (72.5 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 27 ft (8.2 m), from topographic map.

REMARKS.--Water-discharge records good. Flow diverted above gage during summer months for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,490 ft^3/s (42.2 m^3/s) Feb. 25, 1979, gage height, 6.84 ft (2.084 m); minimum daily, 14 ft^3/s (0.40 m^3/s) Oct. 1 - 4, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)
Jan. 21	0745	576	16.3	5.71	1.740
Feb. 25	0445	*1490	42.2	6.84	2.084
June 1	1830	312	8.84	5.13	1.564
June 12	0100	452	12.8	5.47	1.667
Sept. 6	2115	276	7.82	5.03	1.533

Minimum discharge, 19 ft^3/s (0.54 m^3/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	25	30	29	35	57	36	38	133	36	30	25
2	22	25	26	64	33	51	40	36	74	36	49	24
3	22	24	23	79	34	47	45	36	51	34	75	25
4	24	25	54	42	32	42	46	39	108	34	80	25
5	25	26	63	30	30	42	47	40	79	38	42	28
6	24	24	41	31	31	70	40	36	50	32	32	154
7	22	25	30	38	32	79	36	36	45	31	29	146
8	21	25	27	78	31	54	34	36	40	29	27	51
9	21	24	42	66	30	45	46	37	38	29	25	32
10	23	24	54	37	29	41	53	37	34	30	35	28
11	22	25	34	31	29	57	41	37	155	30	99	30
12	22	23	28	29	30	51	40	40	256	30	120	29
13	22	23	27	34	28	42	40	42	53	32	53	29
14	23	24	26	49	28	44	55	51	38	28	29	29
15	21	24	24	35	29	41	48	45	34	26	25	41
16	21	26	24	30	29	38	41	40	33	27	24	30
17	44	26	28	30	28	38	39	37	48	30	24	27
18	30	36	24	29	27	36	38	39	44	68	28	28
19	27	28	24	26	33	36	36	41	34	83	27	29
20	25	25	24	34	31	37	36	39	33	42	27	27
21	24	24	34	289	31	36	36	39	32	35	27	28
22	23	24	28	220	35	36	35	40	38	30	25	93
23	22	24	25	60	36	36	36	41	120	32	24	96
24	24	25	29	69	244	59	37	53	51	40	28	47
25	23	24	55	64	1030	56	38	99	40	37	34	34
26	24	22	37	51	716	43	46	62	37	33	42	33
27	28	27	26	46	152	38	70	42	37	31	61	32
28	26	37	23	44	74	36	51	40	37	29	93	31
29	24	32	22	42	---	37	41	47	36	31	36	35
30	23	40	22	39	---	36	38	108	34	51	50	40
31	25	---	24	37	---	36	---	81	---	37	32	---
TOTAL	748	786	978	1782	2927	1397	1265	1434	1842	1111	1332	1306
MEAN	24.1	26.2	31.5	57.5	105	45.1	42.2	46.3	61.4	35.8	43.0	43.5
MAX	44	40	63	289	1030	79	70	108	256	83	120	154
MIN	21	22	22	26	27	36	34	36	32	26	24	24
CFSM	.86	.94	1.13	2.05	3.75	1.61	1.51	1.65	2.19	1.28	1.54	1.55
IN.	.99	1.04	1.30	2.37	3.89	1.86	1.68	1.91	2.45	1.48	1.77	1.74

CAL YR 1978 TOTAL 14228 MEAN 39.0 MAX 553 MIN 21 CFSM 1.39 IN 18.90
WTR YR 1979 TOTAL 16908 MEAN 46.3 MAX 1030 MIN 21 CFSM 1.65 IN 22.46

01412800 COHANSEY RIVER AT SEELEY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB										
14...	1045	28	240	6.3	2.0	13.2	2.2	33	13	62
APR										
05...	1030	47	207	6.9	12.0	10.6	1.5	49	33	55
MAY										
22...	1145	40	219	6.9	17.5	8.0	1.2	540	240	60
JUL										
09...	1100	30	220	4.2	19.5	8.3	1.6	230	90	59
AUG										
09...	1100	26	235	5.9	23.0	7.1	1.3	240	170	54

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (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										
14...	12	7.8	13	3.9	15	0	12	25	28	.0
APR										
05...	11	6.7	11	3.8	15	0	12	24	25	.0
MAY										
22...	12	7.3	14	4.1	5	0	4	21	26	.1
JUL										
09...	12	7.1	14	3.9	0	0	0	22	27	.1
AUG										
09...	11	6.4	15	4.9	7	0	6	17	27	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB										
14...	9.3	145	5.5	.30	1.3	1.6	7.1	.49	.20	3.5
APR										
05...	6.1	116	4.4	.20	.70	.90	5.3	.12	.12	3.8
MAY										
22...	7.4	141	5.4	.20	.60	.80	6.2	.08	.08	2.5
JUL										
09...	6.4	134	3.9	<.10	--	1.7	5.6	.17	.17	4.5
AUG										
09...	8.2	148	3.7	.07	2.0	2.1	5.8	.16	.16	6.5

01413015 COHANSEY RIVER AT BRIDGETON, NJ

LOCATION.--Lat 39°25'54", long 75°14'11", Cumberland County, Hydrologic Unit 02040206, at bridge on Washington Street in Bridgeton, 1.3 mi (2.1 km) downstream from Sunset Lake, and 18.6 mi (29.9 km) upstream from mouth.

DRAINAGE AREA.--47.3 mi² (122.5 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
FEB 14...	1215	249	6.7	1.5	11.6	3.1	2	<2	52	10
APR 05...	1240	208	6.8	13.5	9.0	2.1	70	8	51	10
JUN 11...	1030	183	6.5	21.0	7.2	6.6	5400	9200	42	8.7
JUL 09...	1245	205	6.2	22.5	5.7	3.5	330	330	80	18
AUG 09...	1245	235	6.0	26.5	2.6	3.2	1100	330	65	10

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
FEB 14...	6.6	20	4.0	22	0	18	25	28	.0	9.6
APR 05...	6.3	14	4.1	24	0	20	24	23	.0	6.9
JUN 11...	4.8	10	3.6	20	0	16	17	18	.1	6.8
JUL 09...	8.6	5.8	4.1	12	0	10	34	18	.2	.6
AUG 09...	9.6	56	5.9	29	0	24	24	90	.1	7.2

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 14...	140	4.5	.50	.70	1.2	5.7	1.3	.78	4.2
APR 05...	110	3.8	.40	.60	1.0	4.8	.19	.13	4.0
JUN 11...	104	2.0	.30	1.3	1.6	3.6	.51	.31	9.4
JUL 09...	146	2.8	<.10	--	4.4	7.2	.56	.22	9.4
AUG 09...	262	3.4	.12	2.8	2.9	6.3	.92	.21	6.9

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft (76 m) downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi (1.9 km) upstream from Neversink River, and 6.5 mi (10.5 km) downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,076 mi^2 (7,967 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1031: 1905-36. WRD NY 1971: 1970.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft (126.599 m) National Geodetic Vertical Datum of 1929. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Bureau prior to June 20, 1914.

REMARKS.--Records good. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi^2 (961 km^2) of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi^2 (1,176 km^2) of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft^3/s (6,600 m^3/s) Aug. 19, 1955, gage height, 23.91 ft (7.288 m), from floodmarks in gage house, from rating curve extended above 89,000 ft^3/s (2,520 m^3/s) on basis of slope-area measurement of peak flow; minimum observed, 175 ft^3/s (4.96 m^3/s) Sept. 23, 1908, gage height, 0.6 ft (0.18 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft^3/s (5,810 m^3/s) Oct. 10, 1903, gage height, 23.1 ft (7.04 m), from rating curve extended above 70,000 ft^3/s (1,980 m^3/s) by velocity-area studies; stage on Mar. 8, 1904, was 25.5 ft (7.77 m), ice jam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68,000 ft^3/s (1,930 m^3/s) Mar. 6, gage height, 11.88 ft (3.621 m); minimum, 905 ft^3/s (25.6 m^3/s) Sept. 20, gage height, 1.81 ft (0.552 m); minimum daily, 1,210 ft^3/s (34.3 m^3/s) July 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1450	1970	1970	2310	6550	8750	8350	9430	12400	1470	1600	1700
2	1530	2070	1650	18000	5660	9130	8230	8430	10200	1880	1680	1730
3	1470	1970	1580	41000	4980	8920	8800	7640	8750	2030	1880	1530
4	1680	1700	1530	17300	4850	7840	8310	7840	8960	1530	1550	1730
5	1720	1680	1930	10400	4790	19300	8230	8030	7450	1400	1370	2270
6	1930	1820	2710	7490	4100	63000	8150	6510	6550	1450	1450	4980
7	1840	1700	2570	6550	4100	47500	7010	6210	5840	1370	1480	7190
8	1370	1680	2480	10800	3600	29700	5910	5700	5250	1400	1320	5180
9	1510	1840	3630	14400	3100	20100	6780	5490	4080	1370	1500	2500
10	1450	1860	7990	10000	3300	15300	11200	5320	2990	1470	1720	2070
11	1730	1500	6550	7760	3100	17500	11300	4950	3610	1530	1990	2500
12	1950	1450	4950	5910	3200	17000	10400	3880	4470	1790	1950	2290
13	1560	1650	4230	5180	2900	13500	10100	3140	4350	1770	2170	1840
14	1630	1600	4080	5110	3000	11700	9690	3290	3370	1750	1480	1810
15	2190	1500	3420	6020	3100	11400	11900	3090	2850	1560	1680	1660
16	2570	1600	2710	5350	3000	9730	12100	2460	2890	1530	1240	2010
17	1950	1450	2570	4850	2900	8800	11700	2290	2190	1840	1340	1750
18	1480	1250	2710	4540	2800	7950	10800	2130	2090	2350	1360	1560
19	1400	1310	2330	3910	2800	7490	9560	2330	1970	2150	1600	1420
20	1430	2110	1860	4470	2800	7080	8590	2110	1810	1810	1600	1390
21	1580	1820	2500	4380	2700	6780	7160	2590	1790	1430	1730	1580
22	1630	1610	3940	11000	2900	6660	5590	2460	1610	1210	1580	2460
23	1430	1660	3370	12400	2800	6660	5590	2420	1370	1510	1430	3040
24	1630	1510	2710	10100	3700	6700	5150	6400	1390	1630	1500	2920
25	1400	1560	2290	29800	6000	13400	4660	23300	1650	1750	1990	2820
26	1580	2010	2420	29600	11000	18000	4110	33100	1700	1610	1470	2400
27	1680	2310	2920	16500	12200	14800	5450	31600	1370	1680	1450	2290
28	3370	1990	3010	12400	9640	12400	13700	23500	1530	1610	1630	2130
29	2640	2050	2480	10300	---	11000	12100	21000	2150	1530	1470	2110
30	2050	2640	1990	8880	---	10700	10300	19000	1750	1420	1510	1630
31	1990	---	1860	7870	---	9640	---	15900	---	1310	1580	---
TOTAL	54820	52870	92940	344580	125570	458430	260920	281540	118380	50140	49300	72490
MEAN	1768	1762	2998	11120	4485	14790	8697	9082	3946	1617	1590	2416
MAX	3370	2640	7990	41000	12200	63000	13700	33100	12400	2350	2170	7190
MIN	1370	1250	1530	2310	2700	6660	4110	2110	1370	1210	1240	1390

CAL YR 1978 TOTAL 1830015 MEAN 5014 MAX 43500 MIN 995
WTR YR 1979 TOTAL 1961980 MEAN 5375 MAX 63000 MIN 1210

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1973.
WATER TEMPERATURES: February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

INSTRUMENTATION.--Temperature recorder since January 1973.

REMARKS.--No temperature record Mar. 22, 23, Apr. 9-30, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1957-59, 1973-79), 29.5°C July 19, 1959, Aug. 3, 1975; minimum (water years 1958-60, 1973, 1975-79), freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 28.0°C Aug. 5; minimum, freezing point on several days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	14.5	15.5	22.5	20.5	21.5	26.5	24.5	25.5	24.0	21.5	23.0
2	18.0	16.0	17.0	21.5	20.5	21.0	26.0	24.0	25.0	23.5	22.0	22.5
3	18.0	17.0	17.5	23.0	20.0	21.5	26.5	24.5	25.5	24.0	22.5	23.0
4	18.0	17.5	18.0	21.0	19.5	20.5	27.5	24.5	26.0	24.5	22.5	23.5
5	18.0	17.5	18.0	20.0	18.0	19.0	28.0	25.5	26.5	23.5	22.0	22.5
6	19.0	17.5	18.5	20.0	17.0	19.0	27.0	24.5	26.0	22.0	20.5	21.0
7	19.0	17.5	18.0	20.5	17.5	19.0	25.5	22.5	24.5	21.5	20.0	20.5
8	19.5	17.5	19.0	22.5	19.0	21.0	25.0	23.0	24.0	20.5	19.5	20.0
9	20.0	19.0	20.0	24.0	20.5	22.0	25.0	22.0	23.5	20.0	18.0	19.0
10	20.5	19.5	20.0	22.5	20.0	21.5	24.5	22.5	23.5	20.0	17.5	19.0
11	22.5	20.5	21.5	24.0	21.0	22.5	23.5	21.5	22.5	20.5	18.5	20.0
12	20.5	16.5	18.5	24.5	21.0	23.0	21.0	19.0	20.0	20.5	18.5	19.5
13	18.0	16.0	17.0	26.0	22.0	24.0	20.0	18.0	19.0	20.5	18.5	19.5
14	18.5	16.0	17.0	26.5	23.5	25.0	20.0	19.0	19.0	21.0	19.5	20.5
15	19.5	17.5	18.5	27.0	24.5	25.5	19.0	18.0	18.5	20.5	19.0	19.5
16	22.0	19.0	20.0	26.5	23.5	25.0	19.0	17.0	18.0	19.5	17.5	19.0
17	23.0	19.5	21.0	26.5	23.0	24.5	20.0	17.0	18.5	20.0	17.5	19.0
18	23.5	20.5	21.5	24.0	22.5	23.5	19.0	17.5	18.0	20.0	19.0	19.5
19	23.5	20.0	21.5	24.5	22.0	23.0	19.5	17.5	18.5	19.5	17.0	18.5
20	23.0	19.0	21.0	24.5	22.0	23.0	21.0	18.5	20.0	18.0	16.0	17.0
21	23.0	19.5	21.5	25.5	22.0	24.0	21.5	19.5	20.5	17.0	15.5	16.0
22	22.0	19.5	21.0	26.0	24.0	25.0	23.0	20.5	22.0	16.5	16.0	16.0
23	22.0	20.0	21.0	26.0	23.5	25.0	23.0	21.0	22.0	16.5	15.5	16.0
24	22.0	19.0	20.0	25.5	22.0	24.0	22.5	21.5	22.0	16.5	15.0	15.5
25	20.5	17.0	18.5	26.5	23.0	24.5	23.5	22.0	22.5	16.0	14.5	15.5
26	21.5	17.5	19.5	26.0	23.5	25.0	24.5	21.5	23.0	17.0	15.0	16.0
27	22.5	18.5	20.5	26.5	23.0	25.0	24.5	23.0	24.0	17.5	15.5	16.5
28	22.5	19.5	21.0	26.0	23.0	25.0	25.0	23.0	24.0	17.0	16.0	16.5
29	22.0	19.5	20.5	25.5	24.0	24.5	24.5	23.5	24.0	17.5	16.5	17.0
30	21.5	19.5	20.5	26.0	23.5	25.0	25.0	23.0	24.0	17.5	17.0	17.5
31	---	---	---	26.5	23.5	25.0	25.0	23.0	24.0	---	---	---
MONTH	23.5	14.5	19.5	27.0	17.0	23.0	28.0	17.0	22.5	24.5	14.5	19.0

01437500 NEVERSINK RIVER AT GODEFFROY, NY

LOCATION.--Lat 41°26'28", long 74°36'07", Orange County, Hydrologic Unit 02040104, on right bank just upstream from highway bridge on Graham Road, 0.5 mi (0.8 km) downstream from Basher Kill, 0.8 mi (1.3 km) southeast of Godeffroy, 1.7 mi (2.7 km) south of Cuddebackville, and 8.5 mi (13.7 km) upstream from mouth.

DRAINAGE AREA.--302 mi^2 (782 km^2).

PERIOD OF RECORD.--August to October 1903, August 1909 to April 1914 (gage heights and discharge measurements, also twice-daily figures of discharge for January 1911 to December 1912, which do not represent daily mean discharges because of diurnal fluctuation), and July 1937 to current year. August to October 1903, published as "Navesink River at Godeffroy, NY."

REVISED RECORDS.--WSP 821: Drainage area. WSP 1502: 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 459.66 ft (140.104 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Apr. 30, 1914, nonrecording gages at same site (August to October 1903 at datum 0.98 ft or 0.299 m higher).

REMARKS.--Records good except those for winter periods, which are poor. Prior to 1949, diurnal fluctuation at low and medium flow caused by powerplant at Cuddebackville. Subsequent to June 1953, entire flow from 91.8 mi^2 (237.8 km^2) of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill), impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft^3/s (935 m^3/s) Aug. 19, 1955, gage height, 12.49 ft (3.087 m), from rating curve extended above 11,000 ft^3/s (312 m^3/s) on basis of slope-area measurement of peak flow; practically no flow several times in July 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,700 ft^3/s (105 m^3/s) Jan. 2 (estimated); maximum gage height, 8.47 ft (2.582 m) Feb. 25 ice jam; minimum discharge, 81 ft^3/s (2.29 m^3/s) Oct. 4, Nov. 15; minimum gage height, 2.82 ft (0.860 m) Nov. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	135	140	390	600	760	631	577	659	225	105	107
2	97	141	140	2300	520	780	590	500	570	205	121	107
3	86	174	153	2440	480	800	597	470	525	184	118	113
4	86	157	174	1300	430	800	544	583	470	167	124	110
5	97	105	280	1000	400	1500	544	525	418	157	118	107
6	157	97	248	904	360	2790	494	458	430	150	118	1250
7	181	94	216	792	340	2320	458	418	381	141	118	1010
8	129	94	224	1790	345	1820	430	386	340	132	107	519
9	111	100	712	1300	310	1530	488	355	320	127	88	402
10	111	94	784	950	280	1370	703	335	306	121	88	320
11	105	91	450	760	250	1880	725	325	512	118	115	274
12	114	88	400	660	230	1330	610	301	902	113	184	245
13	150	86	370	600	210	1060	563	330	583	110	249	217
14	232	100	350	540	190	1010	763	375	482	110	173	221
15	305	83	320	500	180	1010	971	340	413	121	144	237
16	202	83	280	450	170	763	803	311	360	150	129	205
17	171	88	250	420	160	688	725	279	320	213	118	184
18	188	160	220	390	160	631	645	261	292	187	118	167
19	185	188	200	360	150	590	570	386	270	180	138	170
20	192	138	190	330	250	570	512	452	241	147	135	160
21	178	120	300	450	230	557	464	360	228	135	118	170
22	188	114	250	900	220	557	430	311	217	141	113	617
23	160	111	230	840	210	557	413	355	225	138	107	476
24	138	138	220	880	600	652	381	1270	209	141	110	350
25	126	192	260	3100	3000	2050	360	1730	191	135	144	306
26	132	171	270	2440	1500	1230	375	1620	184	132	135	274
27	188	117	253	1730	900	927	827	1440	167	138	124	249
28	199	130	260	1370	760	771	1110	1210	154	115	113	233
29	157	140	240	1110	---	748	835	1030	202	110	113	311
30	141	140	230	920	---	740	674	971	202	107	115	320
31	132	---	220	740	---	681	---	787	---	102	110	---
TOTAL	4738	3669	8834	32656	13435	33472	18235	19051	10773	4452	3910	9431
MEAN	153	122	285	1053	480	1080	608	615	359	144	126	314
MAX	305	192	784	3100	3000	2790	1110	1730	902	225	249	1250
MIN	86	83	140	330	150	557	360	261	154	102	88	107

CAL YR 1978 TOTAL 156427 MEAN 429 MAX 3680 MIN 83
WTR YR 1979 TOTAL 162656 MEAN 446 MAX 3100 MIN 83

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Sussex County, Hydrologic Unit 02040104, on right bank 0.4 mi (0.6 km) upstream from toll bridge on U.S. Route 206 at Montague, 0.8 mi (1.3 km) downstream from Sawkill Creek, and at mile 246.3 (396.3 km). Water-quality samples collected from toll bridge.

DRAINAGE AREA.--3,480 mi² (9,013 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft (112.755 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft (21.3 m) lower.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--40 years, 5,961 ft³/s (168.8 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250,000 ft³/s (7,080 m³/s) Aug. 19, 1955 (gage height, 35.15 ft or 10.714 m), from rating curve extended above 90,000 ft³/s (2,550 m³/s) on basis of flood-routing study; minimum, 382 ft³/s (10.8 m³/s) Aug. 24, 1954, gage height, 3.83 ft (1.167 m); minimum daily, 412 ft³/s (11.7 m³/s) Aug. 23, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage during period 1903-79, 35.5 ft (10.82 m) Oct. 10, 1903, present datum, from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62,600 ft³/s (1,773 m³/s) Mar. 6, gage height, 17.58 ft (5.358 m); minimum, 1,150 ft³/s (32.6 m³/s) Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1710	2140	2280	2500	7760	10300	9530	10500	13500	1890	1810	1950
2	1710	2280	1920	15800	6750	10600	9180	9410	11300	1940	1910	2000
3	1740	2220	1820	42200	5820	10600	9840	8540	9700	2520	2110	1810
4	1860	1990	1860	20900	5670	9440	9350	8750	9740	1900	1850	1850
5	1870	1930	2090	14200	5440	17900	9210	9020	8320	1660	1560	2260
6	2200	1890	2990	9230	4600	57200	9230	7350	7310	1660	1640	6390
7	2230	1970	2930	7970	4600	47700	7990	6900	6550	1690	1670	8770
8	1720	1780	2800	12100	4100	31400	6770	6450	5850	1640	1530	6830
9	1620	1980	3880	16800	3600	22500	7360	6180	4930	1540	1640	3470
10	1750	2030	8950	12400	3700	17500	12000	5950	3570	1710	1800	2490
11	1840	1800	7410	9830	3500	19400	12400	5590	4170	1690	2210	3060
12	2190	1580	5760	7160	3600	19100	11500	4550	5900	1960	2190	2770
13	1900	1670	4940	6290	3300	15200	11100	3750	5300	1980	2510	2300
14	1920	1890	4770	5800	3300	13200	10700	3770	4140	2000	2020	2140
15	2510	1620	4220	6400	3400	12900	13200	3800	3680	1790	1860	2170
16	2870	1650	3330	6000	3400	11100	13300	3050	3500	1770	1670	2100
17	2310	1740	3070	5200	3200	10100	12800	2860	2730	2100	1560	2000
18	1860	1530	2880	4900	3200	9190	11900	2460	2530	2710	1620	1910
19	1680	1530	3220	4200	3100	8520	10600	2960	2500	2640	1850	1700
20	1690	2210	2190	4900	3200	8070	9580	2790	2170	2110	1860	1600
21	1820	2090	3110	5000	3100	7750	8220	2930	2180	1820	2000	1750
22	1880	1830	4250	11000	3200	7610	6420	3160	2060	1500	1860	3120
23	1700	1840	4000	13900	3200	7570	6200	2750	1760	1720	1700	3680
24	1810	1810	3240	11400	4300	7650	5880	7590	1740	2070	1750	3360
25	1650	1750	2600	29900	7200	14900	5330	23500	1770	2020	2160	3270
26	1760	2220	2700	32700	12000	19700	4770	31900	2200	1900	1910	2810
27	1830	2350	3000	19700	14200	16300	6460	32300	1620	1960	1720	2650
28	3460	2430	3500	14700	11300	13700	14700	25100	1790	1970	1850	2470
29	3000	2120	2800	12200	---	12200	13700	22400	2360	1820	1750	2590
30	2320	3030	2300	10500	---	11700	11400	20400	2170	1630	1750	2000
31	2170	---	2100	9340	---	10900	---	17400	---	1580	1780	---
TOTAL	62580	58900	106910	385120	143740	491900	290620	304060	137040	58890	57100	87270
MEAN	2019	1963	3449	12420	5134	15870	9687	9808	4568	1900	1842	2909
MAX	3460	3030	8950	42200	14200	57200	14700	32300	13500	2710	2510	8770
MIN	1620	1530	1820	2500	3100	7570	4770	2460	1620	1500	1530	1600

CAL YR 1978 TOTAL 2124890 MEAN 5822 MAX 52400 MIN 1320
WTR YR 1979 TOTAL 2184130 MEAN 5984 MAX 57200 MIN 1500

01439830 BIG FLAT BROOK AT TUTTLES CORNER, NJ

LOCATION.--Lat 41°12'00", long 74°48'56", Sussex County, Hydrologic Unit 02040104, at bridge on State Route 521 in Tuttles Corner, 0.7 mi (1.1 km) west of intersection of U.S. Route 206 with State Route 521, 1.2 mi (1.9 km) south of Layton, and 2.0 mi (3.2 km) upstream from Little Flat Brook.

DRAINAGE AREA.--28.3 mi² (73.3 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)
JAN 30...	1115	115	64	7.6	1.0	12.6	3.0	40
MAR 29...	1115	85	72	7.7	5.0	11.8	3.0	20
MAY 23...	1050	41	74	8.1	12.5	9.5	1.0	140
AUG 28...	0930	--	94	6.8	18.0	9.9	--	<20

DATE	STREP-TOCOCCI FECAL (MPN)	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 (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN 30...	<2	23	6.0	1.9	2.5	.6	8	11	4.5
MAR 29...	<2	21	5.8	1.6	3.5	.9	7	12	5.8
MAY 23...	920	25	7.0	1.9	2.7	.7	18	9.5	4.5
AUG 28...	140	34	9.2	2.6	3.5	.7	26	9.0	5.4

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	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)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 30...	.1	4.6	38	<1.0	<.10	.30	.02	2.7
MAR 29...	.0	3.4	50	<1.0	<.10	1.4	.02	--
MAY 23...	.1	4.0	49	<1.0	<.10	.40	.02	5.2
AUG 28...	.0	4.6	58	<1.0	<.10	.40	.03	4.3

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ

LOCATION.--Lat 41°06'24", long 74°57'09", Sussex County, Hydrologic Unit 02040104, on right bank 1.0 mi (1.6 km) upstream from Flatbrookville, and 1.5 mi (2.4 km) upstream from mouth. Water-quality samples collected at bridge 0.7 mi (1.1 km) downstream from gage at high flows.

DRAINAGE AREA.--65.1 mi² (168.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1923 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1432: 1924(M), 1928(M), 1929, 1930(M), 1932, 1933(M), 1936, 1938(M), 1939-40, 1949(M), 1952-53(M).

GAGE.--Water-stage recorder. Concrete control since Aug. 19, 1929. Datum of gage is 347.73 ft (105.988 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 6, 1926, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. Flow occasionally regulated by ponds above station.

AVERAGE DISCHARGE.--56 years, 110 ft³/s (3.115 m³/s) 22.95 in/yr (583 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft³/s (271 m³/s) Aug. 19, 1955 (gage height, 12.58 ft or 3.834 m, from high-water mark in gage house) from rating curve extended above 2,000 ft³/s (56.6 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.6 ft³/s (0.10 m³/s) Sept. 25, 26, 1964, Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 650 ft³/s (18.4 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 3	0445	1310	37.1	4.94	1.506	Mar. 7	0015	854	24.2	4.11	1.253
Jan. 8	2000	937	26.5	4.27	1.301	May 25	0415	884	25.0	4.17	1.271
Jan. 25	1230	*2140	60.6	6.20	1.890	Sept. 6	2315	1170	33.1	4.69	1.430
Feb. 25	0545	900	25.5	4.20	1.280						

Minimum discharge, 11 ft³/s (0.312 m³/s) Oct. 1, gage height, 1.82 ft (0.556 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	40	107	180	266	136	159	147	74	24	18
2	14	15	38	664	153	293	141	138	127	62	24	17
3	13	15	36	1040	141	301	153	127	127	52	30	23
4	14	16	49	408	130	273	150	136	141	46	28	30
5	17	17	74	277	117	439	162	122	114	57	23	23
6	29	15	59	202	107	707	147	112	122	45	21	418
7	31	15	52	180	102	696	127	102	107	40	19	604
8	19	14	51	654	102	404	119	99	92	38	18	180
9	19	14	133	590	107	305	167	92	86	33	16	114
10	16	18	205	322	102	273	277	90	82	31	16	84
11	16	16	127	226	100	428	202	84	167	30	20	68
12	14	15	99	170	98	313	170	82	375	31	54	57
13	14	14	90	164	96	251	162	84	170	31	99	49
14	19	14	82	167	88	233	212	95	122	36	51	49
15	40	14	72	150	82	212	281	99	99	33	36	72
16	31	15	66	127	72	173	226	84	86	33	29	55
17	25	16	64	107	70	167	195	76	78	70	25	45
18	21	34	61	104	61	153	170	70	72	72	23	40
19	21	39	70	95	64	141	153	82	68	90	28	38
20	19	31	54	104	70	133	144	114	62	52	27	34
21	18	25	82	301	70	127	127	92	55	43	23	42
22	18	23	95	639	72	125	119	82	54	35	21	226
23	17	23	72	335	72	119	114	97	64	33	19	164
24	16	55	62	297	270	141	107	555	57	34	18	99
25	15	55	70	1600	567	301	102	798	52	42	31	78
26	15	43	78	823	629	222	107	573	46	35	45	70
27	17	38	66	449	352	180	266	399	46	31	35	62
28	17	35	68	352	243	159	297	281	43	29	28	54
29	20	35	64	285	---	159	226	222	46	28	24	86
30	16	36	52	240	---	156	183	186	55	30	22	88
31	16	---	51	209	---	144	---	170	---	28	20	---
TOTAL	589	731	2282	11388	4317	7994	5142	5502	2962	1324	897	2987
MEAN	19.0	24.4	73.6	367	154	258	171	177	98.7	42.7	28.9	99.6
MAX	40	55	205	1600	629	707	297	798	375	90	99	604
MIN	12	14	36	95	61	119	102	70	43	28	16	17
CFSM	.29	.38	1.13	5.64	2.37	3.96	2.63	2.72	1.52	.66	.44	1.53
IN.	.34	.42	1.30	6.51	2.47	4.57	2.94	3.14	1.69	.76	.51	1.71

CAL YR 1978 TOTAL 42235 MEAN 116 MAX 1400 MIN 12 CFSM 1.78 IN 24.13
WTR YR 1979 TOTAL 46115 MEAN 126 MAX 1600 MIN 12 CFSM 1.94 IN 26.35

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Selected field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	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)
OCT 03...	1330	14	271	12.5	11.6	<1.0	100	28	7.3	5.2	.8

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 03...	78	.0	23	11	.1	3.3	141	<1.0	<.10	2.7

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)
OCT 03...	1330	920	3.3	3.4	30	0	0	0	<10	<10	<10	10

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)
OCT 03...	2	<10	40	1400	<10	10	150	<.5	.00	9	<10	0

DATE	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 03...	10	36	0	0	.0	0	.0	.0	.0	.0	.0	.0

DATE	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 03...	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, Hydrologic Unit 02040105, on left bank 40 ft (12 m) streamward from River Road, 1.0 mi (1.6 km) downstream from Tocks Island, 3.7 mi (6.0 km) northeast of Delaware Water Gap, PA, 4.0 mi (6.4 km) upstream from bridge on Interstate Highway 80, and at channel mile 216.1 (347.7 km).

DRAINAGE AREA.--3,850 mi² (9,970 km²) approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 293.64 ft (89.501 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--15 years, 6,653 ft³/s (188.4 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s (2,920 m³/s) June 30, 1973, gage height, 23.82 ft (7.260 m); minimum daily, 580 ft³/s (16.4 m³/s) July 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 73,000 ft³/s (2,067 m³/s) Jan. 26, maximum gage height, 18.59 ft (5.666 m) Jan. 23, result of ice jam; minimum daily discharge, 1,530 ft³/s (43.3 m³/s)July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2000	2450	2980	3120	11500	14000	11000	12700	17100	2780	1950	2020
2	1750	2520	2630	11000	10900	14200	10300	11300	14100	2370	2110	2020
3	1940	2470	2300	54700	9750	14300	10800	10200	12100	3090	2350	2090
4	1730	2420	2250	32800	8590	12400	10800	9970	11600	2610	2300	1890
5	2070	2230	2420	20200	7800	17000	10400	10800	10900	2230	2070	2250
6	2350	2020	3310	13200	6700	58000	10600	8970	9600	2000	1890	5700
7	2550	2300	3820	10300	6400	55500	9660	7800	8700	2110	1970	10900
8	2250	2020	3620	13800	6600	39000	7760	7680	7600	1970	1890	10400
9	1680	2090	4320	23100	5800	28700	7880	7210	6700	1920	1700	5360
10	1940	2250	9180	18300	5200	21900	12600	6880	4500	2000	1920	3650
11	1750	2270	9440	13000	5400	21100	14600	6700	4900	2060	2370	3650
12	2180	1730	7720	11000	5000	23500	13600	5890	7200	2100	2500	3330
13	2370	1780	6340	9200	5100	18900	12800	4700	6750	2410	3120	2950
14	2090	2110	5960	8800	5000	15400	12300	4600	5760	2440	2950	2520
15	2450	1800	5790	8600	5100	13700	14900	4910	5150	2210	2040	2830
16	3200	1800	4670	8500	5600	12700	15800	4140	4490	2030	2260	2230
17	3030	1970	3970	7600	5000	12100	14700	3730	3900	2410	1620	2920
18	2370	1970	3870	7000	4200	11200	14000	3290	3540	2780	1680	2550
19	1970	1920	3900	6200	4000	10300	12500	3430	3560	3430	1800	2090
20	1860	2110	2830	6000	4600	9850	11300	3930	3060	2660	2040	1890
21	1940	2690	3280	8000	4800	9460	10300	3730	2950	2400	2000	1940
22	2090	2300	4560	15000	4700	9020	7800	4110	2980	1780	2070	3680
23	2090	2110	5150	21000	4600	8910	7030	3650	2520	1530	1860	4980
24	1830	2320	3850	18000	8000	9060	6700	8300	2400	2200	1700	4840
25	2040	2160	2900	45000	11000	13400	6440	27200	2320	2180	2180	4460
26	1780	2420	3020	56600	16800	22800	6060	39500	2920	2240	2780	3760
27	2020	2780	3470	35400	18600	19900	6880	42200	2250	2220	1940	3430
28	2690	2980	3890	24600	15600	16300	14600	32100	2200	2240	1940	3140
29	3930	2550	2970	18600	---	14300	18000	27400	2370	2150	2020	3230
30	2950	3150	2540	15100	---	13200	13800	25100	3090	2010	1830	2830
31	2470	---	2360	13100	---	12800	---	21900	---	1890	1860	---
TOTAL	69360	67690	129310	556820	212340	572900	335910	374020	177210	70450	64710	109530
MEAN	2237	2256	4171	17960	7584	18480	11200	12070	5907	2273	2087	3651
MAX	3930	3150	9440	56600	18600	58000	18000	42200	17100	3430	3120	10900
MIN	1680	1730	2250	3120	4000	8910	6060	3290	2200	1530	1620	1890

CAL YR 1978 TOTAL 2492210 MEAN 6828 MAX 66100 MIN 1430
WTR YR 1979 TOTAL 2740250 MEAN 7508 MAX 58000 MIN 1530

Note.--Doubtful or no gage-height record Dec. 9 to July 18.

01443000 DELAWARE RIVER AT PORTLAND, PA

LOCATION.--Lat 40°55'26", long 75°05'46", Northampton County, Hydrologic Unit 02040105, at walkbridge connecting Portland, PA and Columbia, NJ, and 0.5 mi (0.8 km) upstream of Paulins Kill.

DRAINAGE AREA.--4,165 mi² (10,787 km²).

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 03...	1100	85	8.1	15.5	9.8	50	9	29
MAR 05...	1100	78	7.7	2.0	12.9	490	350	20
APR 30...	1030	66	7.4	13.0	9.1	20	9	21
JUN 04...	1015	70	7.1	19.0	9.4	20	21	22

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 03...	8.7	1.7	3.7	.9	21	.0	11	5.4	.1
MAR 05...	6.1	1.2	3.5	.9	18	--	9.7	5.9	.0
APR 30...	6.1	1.3	2.8	.7	7	--	11	4.4	.0
JUN 04...	6.6	1.4	2.7	.6	13	--	9.5	4.1	.0

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 03...	1.1	53	<1.0	.20	2.4	2.6	.05	2.7
MAR 05...	3.4	40	<1.0	<.10	--	.60	.09	3.1
APR 30...	2.6	54	<1.0	<.10	--	.50	.02	3.7
JUN 04...	2.8	43	<1.0	<.10	--	1.6	.59	8.0

DELAWARE RIVER BASIN

01443000 DELAWARE RIVER AT PORTLAND, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 03...	1100	50	0	0	<10	6	50

DATE	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 (UG/L)
OCT 03...	20	<.5	11	0	20	0

01443440 PAULINS KILL AT BALESVILLE, NJ

LOCATION.--Lat 41°06'20", long 74°45'19", Sussex County, Hydrologic Unit 02040105, at bridge on unnamed road at Balesville, 2.2 mi (3.5 km) downstream from Dry Brook, and 3.4 mi (5.5 km) north of Newton.

DRAINAGE AREA.--67.1 mi^2 (173.8 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January to September 1979.

COOPERATION.--Selected field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
JAN										
30...	1310	--	314	7.3	1.0	11.8	2.0	170	130	110
MAR										
29...	1310	--	368	8.0	7.0	12.0	2.0	230	46	130
MAY										
23...	1250	92	428	8.1	14.0	9.6	3.0	1300	240	170

DATE	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 (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN									
30...	27	10	15	1.4	69	--	21	28	.1
MAR									
29...	34	11	17	1.6	86	--	26	33	.1
MAY									
23...	43	15	20	1.6	130	.0	26	40	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
30...	5.2	164	1.0	<.10	--	.87	1.9	.11	4.2
MAR									
29...	3.6	199	<1.0	<.10	--	1.4	--	.09	--
MAY									
23...	5.9	255	<1.0	.20	1.0	1.2	--	.38	4.4

DATE	TIME	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								
23...	1250	30	1	0	20	0	10	5

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 (UG/L)
MAY								
23...	430	2	90	<.5	0	0	10	0

01443500 PAULINS KILL AT BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'44", long 74°57'15", Warren County, Hydrologic Unit 02040105, on right bank 1,200 ft (370 m) upstream from bridge on State Highway 94 in Blairstown, 1,400 ft (430 m) upstream from Blairs Creek, and 10 mi (16 km) upstream from mouth. Water-quality samples collected at bridge 1,200 ft (370 m) downstream from gage at high flows.

DRAINAGE AREA.--126 mi² (326 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1976, October 1977 to current year.

REVISED RECORDS.--WSP 971: 1942. WSP 1382: 1952-53(M).

GAGE.--Water-stage recorder and concrete control (Aug. 1, 1931, to Aug. 3, 1941, concrete control at site 280 ft or 85 m, downstream). Datum of gage is 335.86 ft (102.370 m) National Geodetic Vertical Datum of 1929. Prior to May 24, 1922, nonrecording gage and May 24, 1922, to July 31, 1931, water-stage recorder, at site of former highway bridge 1,300 ft (400 m) downstream at different datum. Aug. 1, 1931 to July 28, 1939, water-stage recorder at site 100 ft (30 m) downstream at present datum.

REMARKS.-Water-discharge records poor. Diurnal fluctuation caused by powerplant above station and flow regulated slightly by Swartswood Lake.

AVERAGE DISCHARGE.--57 years, (1922-76, 1978-79) 194 ft³/s (5.494 m³/s), 20.89 in/yr (531 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,750 ft³/s (248 m³/s) Aug. 19, 1955, gage height, 11.12 ft (3.389 m) from high-water mark in gage house; minimum, about 2.8 ft³/s (0.08 m³/s) Nov. 1, 1922; minimum daily, 5 ft³/s (0.14 m³/s) Aug. 13, 14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 3	Unknown	2300	65.1	Unknown	
Jan. 8	Unknown	1700	48.1	Unknown	
Jan. 22	Unknown	1400	39.6	Unknown	
Jan. 25	Unknown	*3380	95.7	a7.47	2.277
Feb. 26	Unknown	1910	54.1	a5.54	1.689
Mar 6	Unknown	1600	45.3	Unknown	

a from maximum indicator.

Minimum discharge, 16 ft³/s (0.453 m³/s) Oct. 29, gage height, 1.42 ft (0.433 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	52	34	200	389	560	279	245	290	122	54	52
2	36	50	33	1000	321	600	285	224	260	108	58	48
3	34	48	34	2000	292	620	303	209	270	96	90	58
4	41	48	71	1000	275	600	328	224	300	87	65	62
5	51	26	116	600	242	900	328	209	230	93	60	56
6	64	25	105	450	214	1400	297	189	250	84	54	452
7	67	29	90	380	216	1300	273	180	210	77	52	621
8	55	29	95	1280	205	707	250	171	180	72	48	343
9	47	29	250	1100	196	561	316	161	170	67	46	229
10	41	29	368	700	182	494	466	152	200	65	42	182
11	40	29	264	450	200	812	392	158	350	62	50	153
12	38	28	214	350	210	611	341	157	500	60	93	126
13	38	27	189	330	220	470	316	165	330	62	166	107
14	46	26	177	330	221	421	360	185	260	67	122	102
15	49	26	162	300	200	391	452	192	220	99	87	131
16	46	29	152	250	165	325	398	150	190	96	72	108
17	43	28	148	210	130	302	360	140	170	134	62	90
18	38	38	140	200	110	287	328	140	160	126	58	79
19	35	40	162	180	118	266	297	170	150	130	69	76
20	37	44	128	200	130	252	267	230	140	105	65	78
21	36	45	200	600	130	240	250	180	134	90	58	103
22	37	46	222	1200	132	231	240	170	126	90	54	387
23	146	44	160	700	140	225	229	210	126	82	50	370
24	131	56	140	640	600	255	214	400	118	74	48	257
25	115	54	130	2700	1000	435	204	700	108	69	56	204
26	87	50	145	1500	1220	358	204	500	99	65	99	177
27	22	37	122	900	700	301	297	430	90	62	72	153
28	19	32	123	760	500	273	348	380	90	56	69	133
29	21	28	122	600	---	277	316	350	114	58	62	170
30	60	34	105	500	---	285	273	330	122	65	58	175
31	56	---	92	455	---	285	---	310	---	58	58	---
TOTAL	1614	1106	4493	22065	8658	15044	9211	7611	5957	2581	2097	5282
MEAN	52.1	36.9	145	712	309	485	307	246	199	83.3	67.6	176
MAX	146	56	368	2700	1220	1400	466	700	500	134	166	621
MIN	19	25	33	180	110	225	204	140	90	56	42	48
CFSM	.41	.29	1.15	5.65	2.45	3.85	2.44	1.95	1.58	.66	.54	1.40
IN.	.48	.33	1.33	6.51	2.56	4.44	2.72	2.25	1.76	.76	.62	1.56

CAL YR 1978 TOTAL 74606 MEAN 204 MAX 1500 MIN 19 CFSM 1.62 IN 22.03
WTR YR 1979 TOTAL 85719 MEAN 235 MAX 2700 MIN 19 CFSM 1.87 IN 25.31

Note.--No gage-height record Dec. 15 to Jan 31, Feb. 11 to Mar. 8, and May 11 to June 20.

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1921, 1925, 1957-60, 1962-63, 1976 to current year.

COOPERATION.--Selected field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
03...	1100	32	448	--	15.0	10.6	<1.0	--	--	180
FEB										
27...	1100	E700	195	7.8	.5	13.9	4.0	1100	1600	55
APR										
24...	1030	219	317	8.2	14.0	11.0	3.0	20	11	130
MAY										
24...	0930	E400	295	7.2	15.0	9.2	4.0	3500	>2400	120

DATE	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 (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	44	18	18	1.8	150	.0	32	34	.1
FEB									
27...	14	4.9	12	2.0	36	--	11	19	.1
APR									
24...	33	12	13	1.2	100	--	22	26	.1
MAY									
24...	29	11	15	1.4	88	.0	13	29	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
03...	1.1	253	<1.0	--	--	--	--	.--	8.5
FEB									
27...	3.1	105	1.0	.30	1.0	1.3	2.3	.23	6.5
APR									
24...	1.3	184	<1.0	.20	.50	.70	--	.04	4.4
MAY									
24...	4.4	195	<1.0	<.10	--	1.3	--	.47	6.8

DATE	TIME	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								
03...	1100	30	1	0	--	--	<10	6
MAY								
24...	0930	40	1	0	10	0	30	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 (UG/L)
OCT								
03...	70	--	30	<.5	11	0	30	0
MAY								
24...	2200	4	390	<.5	1	0	20	0

01443900 YARDS CREEK NEAR BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'51", long 75°02'25", Warren County, Hydrologic Unit 02040105, on left bank 100 ft (30 m) upstream from bridge on Hainesburg-Mount Vernon Road, 2.2 mi (3.5 km) northeast of Hainesburg, 2.4 mi (3.9 km) upstream from mouth, and 4.2 mi (6.8 km) west of Blairstown.

DRAINAGE AREA.--7.16 mi² (18.54 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR-NJ-77-2: 1976.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 608 ft (185 m), from topographic map.

REMARKS.--Water-discharge records fair. Complete regulation by the Jersey Central Power and Light Co., at Yards Creek Reservoir above station.

AVERAGE DISCHARGE.--13 years, 11.4 ft³/s (0.323 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 583 ft³/s (16.5 m³/s) revised, Feb. 24, 1977, gage height, 3.92 ft (1.195 m); no flow Sept. 12, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 468 ft³/s (13.2 m³/s) Feb. 26, gage height, 3.73 ft (1.14 m); minimum daily, 0.77 ft³/s (.022 m³/s) Sept. 12, 13.

REVISIONS.--The maximum discharge for the water year 1977 has been revised to 583 ft³/s (16.5 ft³/s) Feb. 24, 1977, gage height 3.92 ft (1.195 m), superceding figure published in the report for 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.6	1.7	24	24	67	20	17	54	1.6	.91	1.2
2	1.3	1.5	1.8	58	26	21	19	4.0	53	1.4	.91	1.2
3	1.0	1.3	1.8	93	27	14	60	4.3	48	1.3	1.2	1.9
4	1.4	1.3	3.1	96	26	13	61	4.3	44	1.5	1.2	1.1
5	1.2	1.3	2.4	61	25	14	20	3.6	35	1.3	1.2	1.2
6	3.0	1.1	2.1	24	38	20	12	3.5	18	1.3	1.1	7.9
7	1.3	1.0	1.9	25	42	25	12	9.4	18	1.3	.94	2.5
8	1.2	1.1	4.3	88	37	25	11	20	16	1.3	1.3	1.8
9	1.0	1.1	8.6	119	35	22	15	20	2.3	1.1	1.4	1.6
10	.98	1.1	5.8	84	26	17	15	21	1.9	1.1	1.5	1.4
11	1.1	1.1	4.0	26	14	19	13	21	4.5	1.2	1.9	.98
12	1.1	1.1	3.3	24	10	16	12	20	2.6	1.1	2.8	.77
13	1.2	.98	4.1	25	9.8	16	12	18	2.2	1.1	1.8	.77
14	2.6	1.1	9.0	21	8.9	16	16	20	2.0	1.9	1.5	1.8
15	1.8	1.1	9.0	21	8.2	16	13	20	1.9	1.3	1.6	1.9
16	1.4	1.2	8.2	20	8.1	16	11	21	1.8	1.1	1.6	1.5
17	1.3	1.5	7.6	21	8.8	15	11	20	1.7	1.4	1.4	1.3
18	1.1	2.7	8.2	20	6.3	13	9.4	20	1.5	1.6	1.8	.87
19	1.0	1.5	8.2	42	6.0	13	6.8	21	1.5	1.4	1.6	.91
20	1.3	1.3	8.2	69	7.0	13	16	21	1.5	1.2	1.6	1.4
21	1.1	1.2	11	80	7.6	14	16	21	1.6	1.2	1.5	4.0
22	1.0	1.3	7.9	74	8.4	15	14	20	1.3	1.1	1.5	8.6
23	.91	1.9	4.0	109	9.7	16	15	27	1.1	1.3	1.5	3.5
24	.91	2.5	4.0	131	98	25	20	42	1.0	1.4	1.7	2.8
25	.98	1.6	4.0	82	122	22	20	37	.98	1.6	1.9	1.6
26	1.8	1.6	3.0	29	170	18	21	31	1.0	1.3	1.6	1.4
27	2.0	1.5	8.2	27	119	4.1	27	26	1.3	1.0	1.6	1.1
28	1.8	1.6	22	24	91	3.8	25	23	1.9	.91	1.6	1.1
29	1.7	1.6	23	22	---	4.5	23	21	2.5	1.1	1.7	2.5
30	1.6	1.9	25	22	---	8.2	21	21	1.7	.98	1.5	1.8
31	1.6	---	21	21	---	21	---	34	---	.91	1.2	---
TOTAL	43.28	42.68	236.4	1582	1018.8	542.6	567.2	612.1	325.78	39.30	46.56	62.40
MEAN	1.40	1.42	7.63	51.0	36.4	17.5	18.9	19.7	10.9	1.27	1.50	2.08
MAX	3.0	2.7	25	131	170	67	61	42	54	1.9	2.8	8.6
MIN	.91	.98	1.7	20	6.0	3.8	6.8	3.5	.98	.91	.91	.77

CAL YR 1978 TOTAL 3933.44 MEAN 10.8 MAX 143 MIN .57
WTR YR 1979 TOTAL 5119.10 MEAN 14.0 MAX 170 MIN .77

01444100 PAULINS KILL AT MOUTH AT COLUMBIA, NJ

LOCATION.--Lat 40°55'14", long 75°05'18", Warren County, Hydrologic Unit 02040206, at bridge on U.S. Route 46 in Columbia, 2.3 mi (3.7 km) southwest of Polkville, and 3.2 mi (5.2 km) southeast of Knowlton.

DRAINAGE AREA.--177 mi² (458 km²).

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
02...	1330	--	450	--	15.5	11.8	--	--	--	200
FEB										
27...	1300	1440	180	8.3	1.0	14.4	4.0	330	>2400	52
APR										
24...	1150	1070	303	8.1	14.0	9.0	2.0	50	<2	130
MAY										
24...	1145	710	205	7.2	15.0	10.8	1.0	5400	>2400	84

DATE	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 (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	48	20	15	1.7	150	--	29	29	.1
FEB									
27...	13	4.7	9.9	1.6	31	--	12	16	.1
APR									
24...	32	12	12	1.1	89	--	22	22	.1
MAY									
24...	21	7.6	8.8	1.2	62	.0	13	17	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
02...	1.0	248	--	--	--	--	--	--	2.9
FEB									
27...	3.1	97	1.0	.30	.90	1.2	2.2	.17	16
APR									
24...	2.0	162	<1.0	.20	.00	.20	--	.05	8.1
MAY									
24...	4.5	128	<1.0	<.10	--	1.0	--	.33	5.9

01444100 PAULINS KILL AT MOUTH AT COLUMBIA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
MAY 24...	1145	50	1	0	10	1	20	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 (UG/L)
MAY 24...	830	0	110	<.5	0	0	0	0

01444800 DELAWARE RIVER NEAR RICHMOND, PA (BELVIDERE, NJ)

LOCATION.--Lat 40°49'44", long 75°05'06", Warren County, NJ, Hydrologic Unit 02040104, at bridge at Belvidere, 200 ft (61 m) upstream from Pequest River, and 4.1 mi (6.5 km) southwest of Buttzville.

DRAINAGE AREA.--4,380 mi² (11,344 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT									
03...	1315	2020	110	7.9	18.0	10.0	110	17	34
MAR									
05...	1315	15200	88	7.9	2.0	13.6	310	130	25
APR									
30...	1245	15500	69	7.4	14.0	9.0	140	4	24
JUN									
04...	1230	13100	78	7.6	20.0	8.7	210	170	25

DATE	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 (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	10	2.3	5.7	1.0	29	.0	13	6.8	.1
MAR									
05...	7.3	1.7	3.8	1.0	19	--	11	6.8	.0
APR									
30...	7.0	1.6	3.3	.8	10	--	11	5.0	.0
JUN									
04...	7.4	1.6	3.0	.6	17	--	10	4.7	.0

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT								
03...	.8	61	<1.0	<.10	--	1.9	.02	2.2
MAR								
05...	3.4	46	<1.0	.20	.30	.50	.11	4.8
APR								
30...	2.6	50	<1.0	<.10	--	.30	.04	7.1
JUN								
04...	2.8	46	<1.0	<.10	--	2.4	.03	5.1

01444800 DELAWARE RIVER NEAR RICHMOND, PA (BELVIDERE, NJ)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 03...	1315	40	1	0	<10	8	60

DATE	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 (UG/L)
OCT 03...	30	<.5	14	0	10	0

DELAWARE RIVER BASIN

01445430 PEQUEST RIVER AT TOWNSBURY, NJ

LOCATION.--Lat 40°51'06", long 74°56'02", Warren County, Hydrologic Unit 02040105, on left upstream abutment of highway bridge in Townsbury and 2.1 mi (3.4 km) upstream from Furnace Brook.

DRAINAGE AREA.--92.5 mi² (239.6 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 480 ft (146 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft³/s (61.5 m³/s) Jan. 25, 1979, gage height, 5.30 ft (1.615 m) from floodmark; minimum, 10 ft³/s (0.28 m³/s) Sept. 16, 1977, gage height, 1.11 ft (0.338 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (16.99 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 3	0300	789	22.3	3.44	1.049
Jan. 8	0400	1070	30.3	3.88	1.183
Jan. 21	unknown	1200	34.0	unknown	
Jan. 25	unknown	*2170	61.5	a5.30	1.615
Feb. 26	unknown	1500	42.5	unknown	
Mar. 7	unknown	830	23.5	unknown	
Mar. 11	0815	675	19.1	3.24	0.988
June 11	2045	670	19.0	3.23	0.985

a - from floodmark

Minimum discharge, 24 ft³/s (0.68 m³/s) Oct. 25, Nov. 12, 13, Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	25	61	174	352	590	207	157	179	85	35	26
2	33	25	52	461	304	480	215	144	157	80	34	26
3	32	26	49	670	278	395	229	138	170	74	35	39
4	36	26	64	340	245	370	241	150	175	69	33	35
5	46	26	89	275	218	450	251	140	154	76	31	32
6	55	28	74	260	200	500	217	127	139	67	29	316
7	54	25	59	240	188	620	188	119	129	62	28	298
8	47	25	64	961	179	510	175	112	119	57	28	219
9	44	25	281	740	184	470	221	105	112	54	26	120
10	42	25	285	560	168	435	317	100	109	53	26	87
11	37	25	199	445	176	606	270	97	308	54	29	71
12	35	24	155	345	167	466	234	94	465	50	57	58
13	33	24	118	295	154	400	212	103	343	46	88	52
14	36	25	113	285	148	367	274	111	251	68	65	51
15	40	25	99	260	137	332	325	113	203	66	48	64
16	37	25	89	230	128	285	283	99	176	51	41	54
17	35	26	89	200	123	263	253	87	157	78	36	47
18	33	49	92	170	122	249	229	83	148	73	34	43
19	33	46	99	135	127	228	205	103	134	71	38	41
20	35	38	92	150	132	212	186	111	122	59	37	38
21	33	37	139	690	136	199	175	99	113	54	34	45
22	30	35	139	820	140	190	166	89	108	50	33	310
23	27	35	116	600	147	180	158	119	108	47	31	236
24	25	49	99	850	350	232	150	421	100	46	31	169
25	25	48	166	1900	480	363	144	428	104	49	31	121
26	25	41	166	1600	800	300	146	386	100	43	30	101
27	31	33	134	1150	760	249	222	292	85	41	29	86
28	31	44	108	860	680	225	240	247	77	38	28	76
29	28	37	108	675	---	225	210	218	89	39	27	75
30	26	52	142	520	---	225	178	197	87	43	29	74
31	25	---	111	400	---	212	---	197	---	38	29	---
TOTAL	1083	974	3651	17261	7223	10828	6521	4986	4721	1781	1110	3010
MEAN	34.9	32.5	118	557	258	349	217	161	157	57.5	35.8	100
MAX	55	52	285	1900	800	620	325	428	465	85	88	316
MIN	25	24	49	135	122	180	144	83	77	38	26	26
CFSM	.38	.35	1.28	6.02	2.79	3.77	2.35	1.74	1.70	.62	.39	1.08
IN.	.44	.39	1.47	6.94	2.90	4.35	2.62	2.01	1.90	.72	.45	1.21

CAL YR 1978 TOTAL 52156 MEAN 143 MAX 780 MIN 24 CFSM 1.55 IN 20.97
WTR YR 1979 TOTAL 63149 MEAN 173 MAX 1900 MIN 24 CFSM 1.87 IN 25.38

Note.--No gage-height record Jan. 10-30 and Feb. 6 to Mar. 8.

01445500 PEQUEST RIVER AT PEQUEST, NJ

LOCATION.--Lat 40°49'43", long 74°58'45", Warren County, Hydrologic Unit 02040105, on right bank at Pequest, 100 ft (30 m) upstream from Lehigh and Hudson River Railway Bridge, and 300 ft (91 m) downstream from Furnace Brook.

DRAINAGE AREA.--108 mi² (280 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1902: 1940(M), 1945, 1955(M), 1957, 1959(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 29, 1929. Datum of gage is 398.78 ft (121.548 m) National Geodetic Vertical Datum of 1929. Prior to June 22, 1926, nonrecording gage at site 10 ft (3 m) upstream at same datum.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--58 years, 154 ft³/s (4.361 m³/s), 19.36 in/yr (492 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,130 ft³/s (60.3 m³/s) Jan. 25, 1979, gage height, 5.97 ft (1.820 m) from flood mark; minimum, 12 ft³/s (0.34 m³/s) Aug. 17-22, Dec. 10, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 650 ft³/s (18.4 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 3	0015	822	23.3	3.55	1.082	Feb. 26	0615	1650	46.7	5.12	1.561
Jan. 8	1345	1030	29.2	3.99	1.216	Mar. 6	2200	868	24.6	3.65	1.113
Jan. 21	2100	1220	34.6	4.36	1.329	Mar. 11	0745	713	20.2	3.31	1.009
Jan. 25	Unknown	*2130	60.3	a5.97	1.820	Jun. 11	Unknown	700	19.8	Unknown	

a From floodmark.

Minimum discharge, 42 ft³/s (1.19 m³/s) Sept. 2, gage height, 1.30 ft (0.396 m) but may have been lower during the period of no gage-height record in October and November.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	48	72	213	406	619	253	188	197	110	54	44
2	51	47	77	547	344	542	263	183	203	105	54	43
3	50	48	70	631	332	483	277	182	210	100	55	57
4	51	48	67	373	304	435	290	178	195	95	54	54
5	57	49	81	341	270	466	301	172	180	101	51	50
6	66	50	99	293	235	669	263	163	198	91	48	321
7	72	51	73	278	252	740	233	150	180	86	48	328
8	65	50	81	894	243	619	219	140	160	82	48	252
9	61	49	314	699	223	520	265	132	145	80	45	147
10	58	59	317	566	198	474	368	130	140	79	46	107
11	55	60	220	439	200	651	329	130	300	79	50	90
12	52	49	176	342	192	525	287	130	580	78	83	80
13	50	47	143	325	180	448	258	132	400	75	113	74
14	55	45	131	339	170	435	324	140	270	100	88	72
15	60	46	116	302	162	405	371	134	233	92	71	83
16	58	47	106	263	155	353	330	126	214	78	63	75
17	55	47	106	230	149	326	300	110	195	98	57	68
18	52	48	100	208	147	308	286	114	185	87	55	62
19	51	70	83	156	151	284	262	128	172	85	59	61
20	50	63	90	180	158	259	236	140	155	77	57	56
21	48	56	159	832	160	245	224	120	140	74	54	68
22	47	53	148	1010	164	234	215	117	135	72	53	344
23	46	52	122	677	170	224	208	159	135	71	51	269
24	48	52	106	930	420	291	199	230	126	71	51	198
25	48	63	193	2040	800	409	192	397	130	72	51	144
26	48	62	178	1760	1510	345	195	342	126	69	50	121
27	51	57	144	1640	1280	298	276	298	111	69	48	106
28	55	50	108	1210	804	270	290	277	103	59	46	93
29	51	58	93	722	---	269	262	242	116	56	47	91
30	50	56	99	531	---	269	200	228	113	59	48	91
31	49	---	106	453	---	259	---	212	---	56	47	---
TOTAL	1663	1580	3978	19424	9779	12674	7976	5524	5747	2506	1745	3649
MEAN	53.6	52.7	128	627	349	409	266	178	192	80.8	56.3	122
MAX	72	70	317	2040	1510	740	371	397	580	110	113	344
MIN	46	45	67	156	147	224	192	110	103	56	45	43
CFSM	.50	.49	1.19	5.81	3.23	3.79	2.46	1.65	1.78	.75	.52	1.13
IN.	.57	.54	1.37	6.69	3.37	4.37	2.75	1.90	1.98	.86	.60	1.26

CAL YR 1978 TOTAL 64100 MEAN 176 MAX 906 MIN 45 CFSM 1.63 IN 22.08
WTR YR 1979 TOTAL 76245 MEAN 209 MAX 2040 MIN 43 CFSM 1.94 IN 26.26

NOTE.--No gage-height record Oct. 1 to Nov. 6 and Apr. 30 to Jun. 14.

01446000 BEAVER BROOK NEAR BELVIDERE, NJ

LOCATION.--Lat 40°50'40", long 75°02'48", Warren County, Hydrologic Unit 02040105, 2,000 ft (610 m) upstream from mouth, and 2.0 mi (3.2 km) east of Belvidere.

DRAINAGE AREA.--36.2 mi² (93.8 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1958, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 18...	1100	90	418	8.1	1.0	12.8	--	80	23
MAR 26...	1030	112	357	8.2	8.0	11.9	--	1300	130
MAY 15...	1000	57	370	7.4	16.0	9.8	1.0	490	240
AUG 09...	1015	--	460	8.4	19.0	9.4	1.0	1700	48

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 (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 18...	170	41	17	9.2	1.2	130	32	17	.1
MAR 26...	150	36	14	8.2	1.3	120	26	18	.1
MAY 15...	180	44	18	9.0	1.2	150	26	17	.1
AUG 09...	210	49	21	9.5	1.4	170	28	16	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 18...	7.3	216	1.4	.08	.10	.18	1.6	.09	1.8
MAR 26...	4.1	214	<1.0	<.10	--	1.5	--	.06	3.6
MAY 15...	6.4	219	<1.0	<.10	--	.60	--	.05	3.1
AUG 09...	3.4	278	<1.0	<.10	--	1.6	--	.28	3.2

01446400 PEQUEST RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'45", long 75°04'44", Warren County, Hydrologic Unit 02040105, at last highway bridge before mouth in Belvidere, and 0.3 mi (0.4 km) upstream from mouth.

DRAINAGE AREA.--158 mi² (409 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1962, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 02...	1030	--	500	--	14.5	12.0	1.0	--	--	250
JAN 18...	1300	355	439	8.2	1.0	13.8	3.0	490	23	190
MAR 26...	1250	--	391	8.4	8.5	11.8	--	1300	70	170
MAY 15...	1130	--	400	8.0	16.0	10.2	1.0	700	240	200
AUG 09...	1115	--	480	--	20.0	8.8	2.0	230	130	220

DATE	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 (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	57	26	12	1.5	190	--	34	20	.1
JAN 18...	43	20	12	1.3	150	--	30	21	.1
MAR 26...	39	17	9.2	1.5	130	--	29	19	.1
MAY 15...	45	21	12	1.4	150	.2	27	20	.1
AUG 09...	48	24	15	1.4	170	--	28	21	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 02...	4.7	276	--	--	--	--	--	--	2.8
JAN 18...	8.0	242	1.1	.16	.05	.21	1.3	.17	3.9
MAR 26...	5.3	224	<1.0	<.10	--	1.2	--	.24	5.9
MAY 15...	6.9	245	<1.0	<.10	--	.80	--	--	3.5
AUG 09...	8.5	270	<1.0	<1.0	--	2.0	--	.14	4.1

01446400 PEQUEST RIVER AT BELVIDERE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	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)
OCT 02...	1030	9000	1.6	12	--	--	0	--	--	--
MAY 15...	1130	--	--	--	20	1	--	0	30	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
OCT 02...	<10	--	<10	10	--	<10	--	3400	--	100
MAY 15...	--	30	--	--	3	--	360	--	2	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)
OCT 02...	--	310	--	.00	--	<10	--	--	50	--
MAY 15...	40	--	<.5	--	7	--	0	10	--	2

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 02...	44	.0	4	.0	.0	.0	.0	.0	.0	.0
MAY 15...	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 02...	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
MAY 15...	--	--	--	--	--	--	--	--	--	--

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft (240 m) downstream from Pequest River, and at channel mile 197.7 (318.1 km).

DRAINAGE AREA.--4,535 mi² (11,746 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage is 226.43 ft (69.016 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft (61 m) upstream at same datum.

REMARKS.--Water-discharge records excellent. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--57 years, 7,977 ft³/s (225.9 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 273,000 ft³/s (7,730 m³/s) Aug. 19, 1955 (gage height, 30.21 ft or 9.208 m, from high-water mark in gage house), from rating curve extended above 170,000 ft³/s (4,810 m³/s) on basis of flood-routing study; minimum, 609 ft³/s (17.2 m³/s) Sept. 28, 29, 1943, gage height, 2.11 ft (0.643 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft (8.72 m), from floodmark, discharge, 220,000 ft³/s (6,230 m³/s) from rating curve extended above 170,000 ft³/s (4,810 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76,800 ft³/s (2,175 m³/s) Mar. 7, gage height, 15.64 ft (4.767 m); minimum, 1,810 ft³/s (51.3 m³/s) Oct. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2050	2660	3630	4370	13400	17600	13600	15200	19700	3170	2080	2220
2	1850	2660	3000	13300	11100	17800	13000	13600	16600	2880	2320	2310
3	2050	2700	2660	55800	9800	18000	13700	12500	13900	3190	2580	2510
4	2080	2660	2740	36100	8770	15400	13700	12200	13600	3130	2740	2270
5	2220	2410	3170	21300	8310	17000	13200	12600	13000	2800	2360	2400
6	2390	2290	3680	15800	6830	59100	13200	11200	11200	2530	2100	8430
7	2500	2400	4310	13500	6700	68300	12300	10000	10300	2490	2130	14200
8	2250	2310	4140	19500	6850	46000	10600	9760	9200	2380	2110	12600
9	1870	2250	5950	26800	6080	32900	10800	9280	8580	2340	1950	7650
10	1980	2410	10400	20400	5570	25800	15100	8690	6600	2240	2080	4980
11	2110	2450	11700	15400	5640	25000	17200	8500	6380	2340	2380	4340
12	2340	2130	9640	11800	5250	27200	16200	7570	9970	2360	3020	4200
13	2560	1980	7780	10800	5340	22400	15400	6380	9200	2620	3680	3730
14	2410	2170	7100	10400	5250	19100	15300	6270	7820	2700	3600	3250
15	2680	2180	6830	10500	5280	18000	17500	6450	6450	2780	2660	3790
16	3170	2050	5570	10000	5740	16400	18200	5740	5570	2530	2560	3210
17	3320	2130	4730	8740	5120	14500	17600	4920	5140	3130	2150	3340
18	2700	2560	4520	8190	4430	13600	16400	4370	4370	3230	2060	3020
19	2270	2470	4000	6700	4190	12500	15000	4580	4140	4030	2170	2720
20	2170	2320	3300	5940	4710	11900	13700	5500	3730	3370	2360	2490
21	2170	2940	3870	10900	4990	11400	12600	5140	3450	2880	2320	2700
22	2290	2680	5240	17700	4930	11000	10500	5430	3370	2430	2410	6980
23	2380	2450	5910	24100	4840	10900	9400	5400	3150	2150	2240	6010
24	2240	2760	5060	20800	8550	11100	9320	13200	2900	2470	2100	5230
25	2320	2720	4770	48600	14800	15300	8580	29300	2820	2740	2560	4960
26	2150	2640	4130	57000	21700	24400	8120	42900	3020	2660	3190	4340
27	2270	3040	4370	35000	23100	22300	9720	45600	2900	2490	2530	4010
28	2400	3210	4280	25700	20000	18700	16300	35400	2540	2510	2340	3720
29	4110	2940	3870	20700	---	16700	20600	29700	2980	2470	2380	3870
30	3250	3190	3690	17300	---	15700	16200	27100	3500	2400	2240	3420
31	2760	---	3790	15100	---	15300	---	24200	---	2200	2200	---
TOTAL	75310	75760	157830	618240	237270	671300	413040	438680	216080	83640	75600	138900
MEAN	2429	2525	5091	19940	8474	21650	13770	14150	7203	2698	2439	4630
MAX	4110	3210	11700	57000	23100	68300	20600	45600	19700	4030	3680	14200
MIN	1850	1980	2660	4370	4190	10900	8120	4370	2540	2150	1950	2220

CAL YR 1978 TOTAL 2959520 MEAN 8108 MAX 73900 MIN 1590
WTR YR 1979 TOTAL 3201650 MEAN 8772 MAX 68300 MIN 1850

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA

LOCATION.--Lat 40°41'30", long 75°12'15", Northampton County, Hydrologic Unit 02040105, at bridge on Northampton Street in Easton, 600 ft (182 m) upstream from Lehigh River, and 0.2 mi (0.3 km) downstream from U.S. Route 22 toll bridge in Easton.

DRAINAGE AREA.--4,717 mi² (12,217 km²).

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 04...	1100	205	--	15.5	8.8	1.0	--	--	66
MAR 06...	1015	85	7.6	.0	12.4	3.0	130	920	25
MAY 01...	1000	84	7.5	14.0	9.8	3.0	130	7	30
JUN 05...	1010	96	7.4	19.0	9.2	1.0	330	22	35

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 04...	18	5.1	7.1	1.8	46	.0	24	8.5	.1
MAR 06...	7.1	1.7	3.7	1.0	16	--	11	6.3	.0
MAY 01...	8.5	2.2	3.7	.8	16	--	11	5.0	.1
JUN 05...	9.7	2.5	3.5	.7	23	.0	13	5.5	.0

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	1.1	108	--	--	--	--	--	8.0
MAR 06...	3.2	50	1.1	<.10	.50	1.6	.38	2.2
MAY 01...	2.5	55	<1.0	<.10	1.0	--	.03	3.0
JUN 05...	2.9	64	<1.0	<.10	2.1	--	.04	7.9

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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 04...	1100	30	1	0	--	--	<10	7
JUN 05...	1010	30	3	0	0	3	20	17

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT 04...	80	--	20	<.5	10	0	20	0
JUN 05...	290	8	50	<.5	9	0	30	0

01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, PA, Hydrologic Unit 02040106, on left bank 1110 ft (34 m) upstream from New Street Bridge at Bethlehem, and 1,800 ft (549 m) upstream from Monocacy Creek. Records include flow of Monocacy Creek.

DRAINAGE AREA.--1,279 mi² (3,313 km²) includes that of Monocacy Creek. At site used prior to Oct. 1, 1928, 1,229 mi² (3,183 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1902 to February 1905, April 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to October 1913.

REVISED RECORDS.--WSP 261: 1903-05. WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

GAGE.--Water-stage recorder. Datum of gage is 210.94 ft (64.295 m) National Geodetic Vertical Datum of 1929. Prior to October 1928, nonrecording gage at New Street Bridge 120 ft (37 m) downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft (1,295 m) downstream at datum 2.49 ft (0.759 m) lower. Oct. 1, 1963 to Dec. 14, 1975, water-stage recorder at site 40 ft (12 m) downstream at same datum.

REMARKS.--Water-discharge records fair. Flow regulated by Wild Creek Reservoir since January 1941, Penn Forest Reservoir since October 1958, Francis E. Walter Reservoir since February 1961, and Beltzville Lake since February 1971 (see Delaware River Basin, reservoirs in).

AVERAGE DISCHARGE.--72 years (1902-04, 1909-79), 2,347 ft³/s (66.47 m³/s), 24.92 in/yr (633 mm/yr), adjusted for diversion 1902-04, 1909-42 and for recirculated water, October 1, 1959 to September 30, 1962.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,000 ft³/s (2,610 m³/s) May 23, 1942, (gage height, about 25.9 ft or 7.89 m, from floodmark, present site and datum), from rating curve extended above 48,000 ft³/s (1,360 m³/s); minimum, 125 ft³/s (3.54 m³/s) June 28, 1965, gage height, 0.94 ft (0.287 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1902, reached a stage of 24.9 ft (7.59 m) from floodmark, present site and datum, discharge, about 88,000 ft³/s (2,490 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51,700 ft³/s (1,460 m³/s) Jan. 25, gage height, 17.12 ft (5.218 m); minimum, 428 ft³/s (12.1 m³/s) Aug. 22; minimum gage height, 1.32 ft (0.402 m) Nov. 15, Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	975	1050	1960	3900	9040	2880	3600	4850	1770	1100	480
2	901	1310	1010	7950	3160	8130	2820	3440	3660	1650	1160	467
3	798	1340	1010	12200	2670	5820	3000	3150	3290	1410	1060	657
4	826	1530	1270	8970	2340	5120	3500	3230	3170	1160	945	783
5	886	1510	1830	8650	2070	6610	4100	3340	3090	1140	797	1000
6	1270	1510	1830	7450	1810	10700	4000	2980	2980	1140	741	6340
7	1140	1420	1680	5150	1960	9890	3500	2650	2840	1190	783	5750
8	979	812	1630	12100	1980	10600	3300	2500	2690	1380	713	5470
9	1040	784	3800	9460	1860	9380	3500	2170	2230	1000	657	4880
10	994	727	4990	7000	1680	7050	4500	2210	2090	930	685	3740
11	963	727	3700	5790	1660	7140	4300	2410	2250	812	713	2190
12	886	699	2750	4970	1580	6360	4100	2230	2260	797	1310	1670
13	812	699	2280	4110	1430	6460	4000	2230	2090	826	1730	1540
14	994	643	2090	3800	1350	6150	4300	2410	1910	1200	1360	1440
15	1250	559	1830	3380	1430	4740	5000	2320	1750	1050	1100	2120
16	1560	573	1710	2940	1480	3870	4500	2320	1650	1080	1060	1960
17	1550	657	1650	2520	1310	3480	4000	2190	1580	2050	1000	1810
18	1360	1220	1550	2050	1220	3340	3500	2000	1510	2250	856	1410
19	1220	1200	1450	1800	1170	3190	3250	2170	1440	2100	900	1350
20	1100	948	1360	1800	1270	2840	3000	2340	1300	1490	990	1270
21	1170	886	1610	10100	1350	2770	2800	2260	1110	1300	769	1750
22	1380	948	1810	11300	1450	2690	2600	2350	1230	1540	601	6390
23	1200	963	1650	6130	1560	2610	2500	2770	1330	1140	629	4970
24	1160	1130	1580	12300	7770	2750	2400	6830	1050	1050	615	4330
25	1140	1100	2450	32900	13700	3340	2300	10200	1000	969	727	4460
26	1100	994	2190	12700	18800	4200	2300	10600	1000	930	826	3600
27	1080	994	1960	12900	7590	4080	3250	8440	975	900	727	2880
28	1230	1020	1730	11500	8130	3340	4880	7470	990	930	870	2390
29	1200	1020	1530	9700	---	3070	5440	6680	1350	1460	769	2560
30	1160	1070	1510	6100	---	3010	4330	6270	1480	1730	755	2320
31	1070	---	1550	5170	---	2960	---	5510	---	1280	573	---
TOTAL	34499	29968	60040	244850	97680	164730	107850	121250	60145	39645	27521	81977
MEAN	1113	999	1937	7898	3489	5314	3595	3911	2005	1279	888	2733
MAX	1560	1530	4990	32900	18800	10700	5440	10600	4850	2250	1730	6390
MIN	798	559	1010	1800	1170	2610	2300	2000	975	797	573	467
CFSM	.87	.78	1.51	6.18	2.73	4.16	2.81	3.06	1.57	1.00	.69	2.14
IN.	1.00	.87	1.75	7.12	2.84	4.79	3.14	3.53	1.75	1.15	.80	2.38

CAL YR 1978 TOTAL 1023645 MEAN 2805 MAX 20300 MIN 559 CFSM 2.19 IN 29.77
WTR YR 1979 TOTAL 1070155 MEAN 2932 MAX 32900 MIN 467 CFSM 2.29 IN 31.13

01455100 LOPATCONG CREEK AT PHILLIPSBURG, NJ

LOCATION.--Lat 40°40'38", long 75°10'13", Warren County, Hydrologic Unit 02040105, at bridge on Lock Street in Phillipsburg, and 0.9 mi (1.4 km) upstream from mouth.

DRAINAGE AREA.--

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-62, January to September 1979.

COOPERATION.--Selected field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN 24...	1215	170	7.4	1.0	13.4	8.0	>24000	>2400	43
MAR 20...	1150	368	8.0	9.5	11.5	<1.0	1100	5	140
MAY 16...	1130	362	8.1	15.0	9.0	1.0	230	240	160
AUG 07...	1145	410	7.8	15.0	8.9	--	1300	920	210
SEP 26...	1300	410	8.0	14.0	10.0	3.0	3500	170	200

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 24...	12	3.2	13	3.0	21	--	15	24	.0
MAR 20...	33	15	7.7	1.7	100	--	34	13	.1
MAY 16...	36	18	6.9	1.8	110	.0	34	11	.0
AUG 07...	48	23	7.4	2.0	160	--	34	13	.1
SEP 26...	47	20	7.3	2.0	150	.0	34	12	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 24...	3.9	95	1.4	1.2	3.0	4.2	5.6	1.2	35
MAR 20...	13	195	2.4	<.10	--	.90	3.3	.02	.6
MAY 16...	13	203	2.8	<.10	--	.30	3.1	.06	1.3
AUG 07...	12	283	3.2	<.10	--	.60	3.8	.65	1.8
SEP 26...	11	256	3.4	.30	.30	.60	4.0	<.01	3.1

01455100 LOPATCONG CREEK AT PHILLIPSBURG, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	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)
MAY 16...	1130	--	--	--	--	20	1	--	0	40	1
SEP 26...	1300	1400	5.1	2.6	7.7	10	1	0	0	0	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
MAY 16...	--	10	--	--	2	--	190	--	0	--	30
SEP 26...	<10	10	20	10	3	10	130	16000	2	40	20

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 (UG/L)
MAY 16...	--	<.5	--	11	--	0	--	0	--	1
SEP 26...	760	<.5	.00	0	<10	0	0	0	60	3

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 16...	--	--	--	--	--	--	--	--	--	--
SEP 26...	7	.0	2	.1	.1	.4	.0	.2	.0	.0

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 16...	--	--	--	--	--	--	--	--	--	--
SEP 26...	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ

LOCATION.--Lat 40°42'57", long 75°04'20", Warren County, Hydrologic Unit 02040105, at bridge on Edison Road, 0.4 mi (0.6 km) southeast of New Village, and 4.3 mi (6.9 km) upstream from Merrill Creek.

DRAINAGE AREA.--33.4 mi² (86.5 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959, 1962 and January to September 1979.

COOPERATION.--Selected field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
JAN 24...	1030	155	165	7.6	2.5	12.5	5.0	9200	>2400	54
MAR 20...	1015	54	190	8.0	6.5	11.6	2.0	790	7	64
MAY 16...	0950	35	200	7.9	16.0	9.6	2.0	2800	540	73
AUG 07...	1015	17	240	7.7	20.5	8.4	5.0	9200	540	95
SEP 26...	1000	25	228	7.6	14.0	9.0	3.0	3500	>2400	87

DATE	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 (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	12	5.9	10	2.2	30	--	21	16	.0
MAR 20...	15	6.4	7.3	1.4	40	--	20	11	.1
MAY 16...	17	7.5	7.0	1.6	49	.0	20	10	.0
AUG 07...	22	9.8	10	2.6	67	--	19	14	.1
SEP 26...	21	8.4	9.3	2.2	60	.0	20	11	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 24...	12	101	1.4	.41	1.9	2.3	3.7	.56	3.4
MAR 20...	13	109	1.2	.30	.60	.90	2.1	.29	2.8
MAY 16...	13	107	1.6	.20	.20	.40	2.0	.46	3.6
AUG 07...	14	156	2.0	.20	1.2	1.4	3.4	1.3	6.3
SEP 26...	14	139	1.9	.80	.00	.80	2.7	1.0	4.2

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	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)
MAY 16...	0950	--	--	--	--	20	1	--	0	40	2
SEP 26...	1000	1410	2.5	.1	2.6	10	1	0	10	30	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
MAY 16...	--	10	--	--	4	--	360	--	2	--	50
SEP 26...	<10	10	10	<10	5	<10	370	7200	2	<10	20

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 (UG/L)
MAY 16...	--	<.5	--	10	--	0	--	0	--	2
SEP 26...	130	<.5	.00	0	<10	0	0	10	20	4

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 16...	--	--	--	--	--	--	--	--	--	--
SEP 26...	6	.0	0	.0	.0	.0	.0	.0	.0	.0

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 16...	--	--	--	--	--	--	--	--	--	--
SEP 26...	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01455300 POHATCONG CREEK AT CARPENTERSVILLE, NJ

LOCATION.--Lat 40°37'30", long 75°11'10", Warren County, Hydrologic Unit 02040105, at bridge on Carpentersville-Riegelsville Road in Carpentersville, and 2,000 ft (610 m) upstream from mouth.

DRAINAGE AREA.--57.1 mi² (147.9 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-62, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN 24...	1350	174	7.4	2.0	13.3	8.0	>24000	>2400	57
MAR 20...	1330	299	8.3	9.0	12.0	1.0	330	70	110
MAY 16...	1300	288	8.2	17.0	9.1	1.0	460	79	120
AUG 07...	1315	328	8.0	19.0	9.3	1.0	16000	1600	160

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 24...	14	5.4	9.5	3.2	38	--	17	14	.0
MAR 20...	26	12	6.6	1.6	85	--	25	9.7	.1
MAY 16...	28	13	6.0	1.7	91	.0	26	9.0	.0
AUG 07...	35	17	8.2	2.2	130	--	28	13	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 24...	6.8	100	5.0	1.1	3.3	4.4	9.4	1.0	18
MAR 20...	12	155	1.9	<.10	--	.50	2.4	.16	3.2
MAY 16...	12	152	1.9	<.10	--	.90	2.8	.22	3.7
AUG 07...	12	222	2.2	<.10	--	.70	2.9	.24	5.7

01455300 POHATCONG CREEK AT CARPENTERSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
MAY 16...	1300	20	1	0	20	1	20	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 (UG/L)
MAY 16...	360	5	40	<.5	12	0	10	1

01455500 MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG, NJ

LOCATION.--Lat 40°55'00", long 74°39'55", Morris County, Hydrologic Unit 02040105, just upstream of bridge on Warren County Route 43 and 300 ft (91 m) downstream from Lake Hopatcong dam in Landing.

DRAINAGE AREA.--25.6 mi² (66.3 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
JAN 23...	1030	246	7.6	2.0	13.7	2.0	20	<2	60	16	4.9	20
MAR 27...	1030	256	7.6	6.0	11.8	2.0	<20	2	46	12	4.0	21
MAY 24...	1000	214	7.8	17.0	9.4	4.0	20	13	46	12	3.8	20

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 23...	1.0	22	17	41	.1	3.3	122	<1.0	<.10	.69	.02	2.8
MAR 27...	1.0	17	15	39	.0	2.1	129	<1.0	<.10	1.3	.07	3.4
MAY 24...	.9	21	12	38	.1	.3	128	<1.0	<.10	1.1	.18	3.4

01455801 MUSCONETCONG RIVER AT LOCKWOOD, NJ

LOCATION.--Lat 40°55'10", long 74°44'07", Sussex County, Hydrologic Unit 02040105, at bridge in Lockwood, at boundary between Sussex County and Morris County, 0.2 mi (0.4 km) southeast of Cage Hill, 0.4 mi (0.7 km) south of Jefferson Lake, and 0.9 mi (1.4 km) downstream from Lubbers Run.

DRAINAGE AREA.--60.5 mi² (156.7 km²).

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN 23...	1210	245	7.3	2.0	13.8	3.0	70	13
MAR 27...	1145	285	7.6	7.0	12.1	1.0	<20	<2
MAY 24...	1145	227	8.1	16.0	9.2	2.0	5400	920

DATE	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)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 23...	59	15	5.2	21	.9	26	16	40	.1
MAR 27...	69	17	6.5	19	1.2	40	19	37	.1
MAY 24...	63	16	5.6	17	1.1	36	11	32	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 23...	6.0	130	<1.0	<.10	--	.51	.11	3.0
MAR 27...	4.9	149	<1.0	.30	1.7	2.0	.13	4.4
MAY 24...	5.9	133	<1.0	<.10	--	1.1	.23	6.3

01456200 MUSCONETCONG RIVER AT BEATYESTOWN, NJ

LOCATION.--Lat 40°48'48", long 74°50'32", Warren County, Hydrologic Unit 02040105, at bridge at Beatyestown, 1.6 mi (2.6 km) upstream of Hanes Brook, 2.1 mi (3.4 km) northeast of Stephensburg, and 3.5 mi (5.7 km) northeast of Scrappy Corner.

DRAINAGE AREA.--90.7 mi² (234.9 km²).

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN 23...	1345	262	7.6	1.0	13.4	3.0	20	23	74
MAR 27...	1320	284	8.1	7.5	12.7	2.0	170	11	82
MAY 24...	1310	235	7.6	16.0	9.7	3.0	1300	>2400	76

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 23...	18	7.0	18	.9	36	--	17	34	.1
MAR 27...	19	8.5	15	1.1	54	--	18	27	.1
MAY 24...	18	7.5	13	1.4	52	.0	12	25	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 23...	7.0	130	<1.0	<.10	--	.63	.16	3.1
MAR 27...	6.3	146	<1.0	.30	1.3	1.6	.43	3.8
MAY 24...	7.4	132	<1.0	<.10	--	1.4	.95	7.5

01456200 MUSCONETCONG RIVER AT BEATYESTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
MAY 24...	1310	160	1	0	10	0	40	10

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 (UG/L)
MAY 24...	7200	27	280	<.5	2	0	40	0

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ

LOCATION.--Lat 40°40'20", long 75°03'40", Warren County, Hydrologic Unit 02040105, on right bank just downstream from highway bridge, 1.5 mi (2.4 km) upstream from Bloomsbury, and 9.5 mi (15.3 km) upstream from mouth.

DRAINAGE AREA.--143 mi² (370 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to March 1907, July 1921 to current year.

REVISED RECORDS.--WSP 521: Drainage area. WSP 1051: 1944-45. WSP 1382: 1904-06, 1922, 1923-29(M), 1931(M), 1933-34(M), 1936(M), 1940, 1942(M), 1944-45(M), 1951-52(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 29, 1932. Datum of gage is 274.83 ft (83.768 m) National Geodetic Vertical Datum of 1929. July 1903 to Mar. 31, 1907, nonrecording gage at bridge 15 ft (4.6 m) upstream at different datum. July 26 to Sept. 12, 1921, nonrecording gage at bridge at present datum.

REMARKS.--Water-discharge records good except those for periods of no gage-height record and those above 2,000 ft³/s (56.6 m³/s) which are fair. Flow regulated by Lake Hopatcong (see Delaware River Basin, reservoirs in). Diurnal fluctuation caused by small powerplants above station.

AVERAGE DISCHARGE.--61 years (1903-06, 1921-79), 234 ft³/s (6.627 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft³/s (204 m³/s) Jan. 25, 1903, gage height, 8.50 ft (2.591 m) from floodmark, discharge from rating curve extended above 1,800 ft³/s (51.0 m³/s) on basis of slope-area measurement at gage height, 6.95 ft (2.118 m); minimum, 8.1 ft³/s (0.23 m³/s) Aug. 2, 1955; minimum daily 27 ft³/s (0.76 m³/s) Sept. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 8	1030	1600	45.3	4.55	1.387	Feb. 26	Unknown	2000	56.6	Unknown	
Jan. 22	Unknown	2300	65.1	Unknown		Mar. 6	Unknown	1300	36.8	Unknown	
Jan. 25	Unknown	*7200	204	8.50	2.591	Sept. 6	1415	1090	30.9	3.74	1.140

Minimum discharge, 54 ft³/s (1.53 m³/s) Oct. 19, gage height, 1.23 ft (0.375 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	84	143	295	602	680	310	400	360	170	110	88
2	76	84	140	690	553	730	335	370	300	159	108	82
3	76	156	145	831	523	830	360	315	345	153	115	92
4	80	210	173	715	506	740	390	340	320	148	110	90
5	99	244	204	657	477	900	375	300	280	153	113	90
6	108	247	179	611	462	1600	345	270	300	148	101	600
7	97	244	151	602	439	1400	290	250	265	132	94	629
8	86	244	140	1390	439	1050	320	235	235	125	90	485
9	82	244	359	1070	416	830	400	225	215	120	86	372
10	80	240	430	769	416	660	650	215	205	120	88	302
11	80	240	334	667	416	900	480	200	700	115	99	251
12	80	240	299	611	407	760	430	190	560	117	194	217
13	76	237	276	584	402	640	400	205	450	117	254	220
14	82	237	258	597	367	580	570	230	385	117	217	287
15	84	227	240	514	291	520	700	210	334	135	165	310
16	80	194	237	448	227	475	600	190	291	143	143	201
17	80	194	237	416	207	425	520	170	265	170	125	165
18	76	233	233	398	210	380	450	160	251	210	110	151
19	76	204	220	376	176	340	410	195	230	167	110	140
20	82	167	210	363	220	320	365	210	210	156	110	130
21	84	151	291	1200	207	300	330	215	194	143	106	167
22	82	143	247	2200	246	285	295	195	191	135	101	648
23	90	125	204	1400	335	280	275	255	197	127	101	472
24	88	135	179	1200	440	350	265	400	179	122	99	363
25	87	132	299	3000	1350	580	250	970	167	122	106	310
26	84	108	265	2500	1400	480	440	940	156	125	106	269
27	99	99	227	1300	900	390	810	830	145	117	101	233
28	103	94	194	1000	740	330	680	740	143	108	94	213
29	99	94	213	850	---	334	550	600	170	120	86	201
30	90	122	185	750	---	322	460	500	165	132	92	201
31	90	---	188	653	---	300	---	420	---	117	88	---
TOTAL	2650	5373	7100	28657	13374	18711	13055	10945	8208	4243	3622	7979
MEAN	85.5	179	229	924	478	604	435	353	274	137	117	266
MAX	108	247	430	3000	1400	1600	810	970	700	210	254	648
MIN	74	84	140	295	176	280	250	160	143	108	86	82

CAL YR 1978 TOTAL 99980 MEAN 274 MAX 2800 MIN 74
WTR YR 1979 TOTAL 123917 MEAN 339 MAX 3000 MIN 74

NOTE.--No gage-height record Feb. 22 to June 14.

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'32", long 75°11'20", Warren County, Hydrologic Unit 02040105, at bridge on State Highway 13 in Riegelsville, 0.2 mi (0.4 km) north of Mount Joy, and 0.2 mi (0.3 km) upstream from mouth.

DRAINAGE AREA.--156 mi² (404 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 28...	1010	252	8.2	2.5	13.0	4.0	790	350	75
APR 16...	1015	258	8.1	9.0	12.2	--	80	33	96
MAY 29...	1010	251	8.1	15.0	10.2	2.0	5400	350	82
JUL 25...	1030	350	8.0	23.0	8.5	3.0	1300	350	140

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 28...	17	7.9	15	1.4	49	--	18	28	.1
APR 16...	22	9.9	11	1.2	64	--	19	23	.1
MAY 29...	19	8.5	13	1.1	63	.0	17	24	.1
JUL 25...	31	16	12	1.6	110	--	19	22	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 28...	7.9	135	1.0	.12	.99	1.1	2.1	.21	3.9
APR 16...	7.1	147	1.0	<.10	--	.30	1.3	.09	1.9
MAY 29...	8.1	139	1.0	<.10	--	4.1	5.1	.43	4.9
JUL 25...	9.5	218	1.5	<.10	--	1.2	2.7	.29	7.1

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
MAY 29...	1010	80	1	0	20	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 (UG/L)
MAY 29...	1200	26	80	<.5	14	0	40	0

01457500 DELAWARE RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'36", long 75°11'17", Warren County, Hydrologic Unit 02040105, at suspension bridge in Rieglesville, and 600 ft (183 m) upstream from Musconetcong River.

DRAINAGE AREA.--6,328 mi² (16,390 km²), includes that of Musconetcong River.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-74, 1976 to 1979 (discontinued).

REMARKS.--Discharge records include flow of Musconetcong River. Water-quality records at periods of base flow probably are influenced by inflow from Musconetcong River.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT 04...	1300	260	17.0	9.5	<1.0	84	21	7.6	10

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	2.2	55	.0	31	13	.1	2.6	141	5.9

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 04...	1300	40	1	0	<10	5	110

DATE	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 (UG/L)
OCT 04...	40	<.5	10	1	50	0

01458100 HAKIHOKAKE CREEK AT MILFORD, NJ

LOCATION.--Lat 40°34'06", long 75°05'44", Hunterdon County, Hydrologic Unit 02040105, at bridge on Bridge Street at Milford, and 4,000 ft (1,220 m) upstream from mouth.

DRAINAGE AREA.--17.2 mi² (44.5 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-62, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 28...	1145	148	8.1	4.5	11.4	4.0	50	11	54
APR 16...	1155	190	8.2	8.5	12.1	--	130	46	68
MAY 29...	1230	195	8.1	15.0	9.7	3.0	2400	540	69
JUL 25...	1230	220	8.1	23.0	9.7	1.0	1600	540	86

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
FEB 28...	14	4.5	9.3	1.7	26	23	15	.1	12
APR 16...	18	5.5	7.7	1.2	32	25	12	.1	11
MAY 29...	18	5.9	7.7	1.3	42	25	11	.1	14
JUL 25...	22	7.6	7.1	1.4	68	21	9.7	.1	15

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 28...	111	1.0	.11	.85	.96	2.0	.09	1.4
APR 16...	113	1.1	<.10	--	.50	1.6	.04	1.9
MAY 29...	121	1.4	<.10	--	1.1	2.5	.17	2.0
JUL 25...	137	1.2	<.10	--	.40	1.6	.02	6.2

01458400 HARIHOKAKE CREEK NEAR FRENCHTOWN, NJ

LOCATION.--Lat 40°32'53", long 75°04'09", Hunterdon County, Hydrologic Unit 02040105, at bridge on Frenchtown-Milford Road, 1,600 ft (490 m) upstream from mouth, and 1.5 mi (2.4 km) north of Frenchtown.

DRAINAGE AREA.--9.75 mi² (25.25 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-62, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 28...	1340	116	8.1	4.0	11.7	4.0	130	350	34
APR 16...	1330	151	8.0	9.0	13.2	--	<20	9	51
MAY 29...	1345	154	8.1	16.0	9.7	2.0	16000	240	51
JUL 25...	1330	156	7.7	25.0	7.9	2.0	700	540	53

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
FEB 28...	9.9	2.2	5.4	2.2	21	17	7.9	.0	7.7
APR 16...	15	3.2	5.8	1.4	20	22	8.5	.0	8.1
MAY 29...	15	3.4	6.0	1.4	27	21	6.9	.1	10
JUL 25...	16	3.2	5.7	1.9	44	16	7.5	.1	9.8

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 28...	76	1.3	.21	.84	1.0	2.3	.21	2.9
APR 16...	89	1.6	<.10	--	.80	2.4	.06	3.8
MAY 29...	96	2.0	<.10	--	.50	2.5	.20	3.5
JUL 25...	87	1.4	<.10	--	.30	1.7	.08	7.2

01458500 DELAWARE RIVER AT FRENCHTOWN, NJ

LOCATION.--Lat 40°31'34", long 75°03'55", Hunterdon County, Hydrologic Unit 02040105, at bridge at Frenchtown, 1,000 ft (300 m) upstream from Nishisakawick Creek, and 3.4 mi (5.5 km) southeast of Milford.

DRAINAGE AREA.--6,420 mi² (16,628 km²).

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT									
02...	1000	253	7.8	18.0	9.0	--	330	<2	99
MAR									
06...	1300	94	7.7	2.0	15.0	2.0	3500	>2400	28
MAY									
01...	1245	108	7.6	15.0	9.9	2.0	2800	13	38
JUN									
05...	1250	129	7.8	19.5	9.1	1.0	1100	<2	45

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
02...	25	8.8	11	2.2	57	.0	32	15	.1
MAR									
06...	7.7	2.1	4.6	1.1	18	--	13	7.7	.0
MAY									
01...	10	3.1	5.2	1.0	27	--	14	7.1	.1
JUN									
05...	12	3.7	5.2	1.0	30	--	16	7.9	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
02...	3.3	153	1.4	.30	3.1	3.4	4.8	.46	2.1
MAR									
06...	3.6	59	1.0	.30	.20	.50	1.5	.36	4.6
MAY									
01...	3.2	67	<1.0	<.10	--	.80	--	.08	6.1
JUN									
05...	4.0	82	<1.0	<.10	--	2.0	--	.37	14

01458500 DELAWARE RIVER AT FRENCHTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 02...	1000	60	1	0	<10	12	120

DATE	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 (UG/L)
OCT 02...	50	<.5	9	1	50	0

01460500 DELAWARE AND RARITAN CANAL AT KINGSTON, NJ

LOCATION.--Lat 40°22'24", long 74°37'08", Middlesex County, Hydrologic Unit 02040105, on right bank at canal lock at Kingston, and 250 ft (76 m) upstream from new bridge on State Highway 27.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1947 to current year.

GAGE.--Two water-stage recorders and concrete control. Datum of gage is 40.00 ft (12.192 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. The canal diverts water from the Delaware River at Raven Rock and discharges into Raritan River at New Brunswick. Some water wasted to the Millstone River 500 ft (152 m) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 174 ft³/s (4.93 m³/s) Apr. 6, 1957; no flow Dec. 31, 1948, Oct. 15, 1950, Oct. 25 to Nov. 1, 1950, Mar. 12, 1970.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	80	105	105	61	106	108	95	82	78	88	77
2	70	82	105	105	123	97	108	91	79	79	84	77
3	71	80	105	110	128	99	108	89	80	77	86	76
4	74	82	106	102	127	101	109	83	83	77	93	76
5	76	83	107	102	120	101	110	74	88	78	88	76
6	78	85	105	102	115	109	110	70	89	76	87	73
7	78	86	104	105	113	104	108	61	89	77	82	71
8	75	86	103	130	113	98	106	58	88	80	80	67
9	72	86	110	120	114	95	106	53	86	82	91	80
10	71	95	110	105	112	99	118	53	85	82	92	82
11	72	96	110	118	119	103	119	54	84	81	91	80
12	72	94	110	116	122	98	117	55	98	79	95	79
13	78	102	100	112	103	96	114	57	102	78	99	78
14	83	93	111	112	94	100	116	55	102	84	96	75
15	85	90	111	111	84	102	121	56	98	90	97	73
16	83	90	111	83	88	102	120	65	91	83	89	72
17	80	95	111	110	89	103	119	64	94	80	76	75
18	78	99	111	113	90	103	117	63	91	83	75	77
19	78	100	111	99	90	103	115	62	91	89	79	76
20	78	100	110	102	90	107	112	72	92	83	81	74
21	76	97	111	118	88	113	109	72	90	79	83	75
22	73	95	116	139	88	111	107	71	88	67	80	88
23	74	96	113	135	91	111	106	72	87	72	73	89
24	79	98	113	135	102	111	105	93	83	69	77	86
25	82	98	126	134	112	117	104	98	81	63	94	85
26	80	98	122	134	105	116	104	92	82	63	86	85
27	80	97	110	132	106	114	110	93	81	67	79	85
28	82	99	105	132	112	112	107	91	80	80	80	85
29	82	102	108	132	---	110	103	87	81	84	77	82
30	82	104	108	132	---	110	98	85	80	78	77	97
31	80	---	108	88	---	108	---	84	---	84	78	---
TOTAL	2393	2788	3396	3573	2899	3259	3314	2268	2625	2422	2633	2371
MEAN	77.2	92.9	110	115	104	105	110	73.2	87.5	78.1	84.9	79.0
MAX	85	104	126	139	128	117	121	98	102	90	99	97
MIN	70	80	100	83	61	95	98	53	79	63	73	67

CAL YR 1978 TOTAL 32797 MEAN 89.9 MAX 150 MIN 55
WTR YR 1979 TOTAL 33941 MEAN 93.0 MAX 139 MIN 53

NOTE.--Gage height record for Dec. 15, 1978 to Feb. 15, 1979, furnished by the New Jersey Department of Environmental Protection.

01460880 LOCKATONG CREEK AT RAVEN ROCK, NJ

LOCATION.--Lat 40°24'58", long 75°01'05", Hunterdon County, Hydrologic Unit 02040105, at bridge, on Raven Rock-Rosemont Road, and 0.7 mi (1.1 km) upstream from mouth.

DRAINAGE AREA.--22.9 mi² (59.3 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1959-62, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
MAR									
01...	0950	89	7.8	1.0	13.8	2.0	490	220	22
APR									
26...	0915	148	7.6	15.0	9.9	1.0	<20	23	47
JUN									
07...	0940	158	7.7	18.0	10.4	<1.0	310	1700	51
SEP									
27...	0945	148	8.1	14.0	9.3	2.0	490	79	50

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR									
01...	5.4	2.0	3.8	1.7	7	--	15	4.1	.0
APR									
26...	11	4.8	7.9	1.9	21	--	26	8.6	.1
JUN									
07...	12	5.0	8.2	2.2	22	.0	26	7.7	.1
SEP									
27...	12	4.8	7.5	2.4	17	.0	25	7.8	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR									
01...	6.2	55	1.0	.20	1.4	1.6	2.6	.17	4.7
APR									
26...	8.0	101	1.7	<.10	--	.50	2.2	.03	2.5
JUN									
07...	13	107	1.4	<.10	--	1.8	3.2	.26	6.1
SEP									
27...	11	108	2.0	.30	.20	.50	2.5	.15	2.8

01460880 LOCKATONG CREEK AT RAVEN ROCK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	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)
JUN 07...	0940	--	--	--	--	40	3	--	0	0	.1
SEP 27...	0945	2500	4.1	.1	4.2	20	1	0	10	0	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JUN 07...	--	20	--	--	8	--	210	--	4	--	10
SEP 27...	<10	20	40	40	2	30	110	44000	2	30	10

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 (UG/L)
JUN 07...	--	<.5	--	13	--	0	--	0	--	0
SEP 27...	150	<.5	.00	1	40	0	0	0	110	0

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 07...	--	--	--	--	--	--	--	--	--	--
SEP 27...	4	.0	0	.0	.0	.0	.0	.0	.0	.0

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 07...	--	--	--	--	--	--	--	--	--	--
SEP 27...	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01461000 DELAWARE RIVER AT LUMBERVILLE, PA

LOCATION.--Lat 40°24'27", long 75°02'16", Bucks County, Hydrologic Unit 02040105, at pedestrian bridge at Lumberville, 1.4 mi (2.3 km) upstream of Lockatong Creek.

DRAINAGE AREA.--6,598 mi² (17,089 km²).

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT									
02...	1310	240	8.1	18.0	9.6	--	170	2	96
MAR									
07...	0945	80	7.9	.0	15.4	3.0	3500	>2400	23
MAY									
02...	0915	111	7.6	14.5	9.7	1.0	E1700	E13	41
JUN									
06...	0930	133	7.7	20.0	6.2	2.0	460	27	46

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
02...	24	8.7	11	2.2	58	.0	31	15	.1
MAR									
07...	6.4	1.7	3.3	1.1	12	--	10	6.0	.0
MAY									
02...	11	3.2	5.4	1.0	22	--	15	7.2	.1
JUN									
06...	12	3.8	5.2	1.0	29	--	17	7.9	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
02...	3.1	150	1.5	.30	2.3	2.6	4.1	.45	2.8
MAR									
07...	3.1	49	<1.0	.30	1.1	1.4	--	.42	9.1
MAY									
02...	3.0	69	<1.0	<.10	--	1.0	--	.10	2.7
JUN									
06...	3.9	83	<1.0	<.10	--	2.4	--	.11	2.9

01461000 DELAWARE RIVER AT LUMBERVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 02...	1310	50	1	0	10	11	160

DATE	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 (UG/L)
OCT 02...	40	<.5	10	1	110	1

01461300 WICKECHEOKE CREEK AT STOCKTON, NJ

LOCATION.--Lat 40°24'41", long 74°59'13", Hunterdon County, Hydrologic Unit 02040105, at bridge on State Route 29 in Stockton, 900 ft (270 m) upstream from mouth.

DRAINAGE AREA.--26.5 mi² (68.6 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 05...	1415	492	--	15.5	11.8	1.0	170	240	64
MAR 01...	1110	171	7.8	2.0	13.5	3.0	330	280	26
APR 26...	1020	407	8.7	15.0	10.0	1.0	20	11	51
JUN 07...	1100	332	7.8	18.0	10.3	2.0	170	130	59
SEP 27...	1145	590	7.8	15.5	9.7	1.0	490	33	62

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	14	7.1	75	2.5	39	.0	48	89	.1
MAR 01...	6.3	2.5	16	2.1	8	--	19	19	.0
APR 26...	12	5.2	60	2.1	21	--	41	82	.1
JUN 07...	15	5.2	40	2.2	36	.0	35	50	.1
SEP 27...	15	5.9	80	2.8	21	.0	43	120	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	11	285	1.8	<.10	--	1.1	2.9	.21	2.1
MAR 01...	7.6	90	1.0	<.10	--	1.1	2.1	.13	4.4
APR 26...	8.7	236	1.8	.20	.20	.40	2.2	.06	4.4
JUN 07...	14	190	1.9	<.10	--	4.4	6.3	.62	3.5
SEP 27...	13	322	2.2	.40	.00	.40	2.6	.11	1.4

01461300 WICKECHEOKE CREEK AT STOCKTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G 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)
OCT											
05...	1415	--	--	--	--	30	1	--	0	--	--
JUN											
07...	1100	--	--	--	--	30	3	--	0	0	1
SEP											
27...	1145	2100	2.2	.0	2.2	20	0	0	20	0	0

DATE	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
OCT											
05...	--	10	--	--	4	--	30	--	--	--	10
JUN											
07...	--	20	--	--	6	--	120	--	5	--	20
SEP											
27...	<10	20	30	30	1	20	70	29000	0	30	0

DATE	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)
OCT										
05...	--	<.5	--	6	--	0	--	20	--	0
JUN										
07...	--	<.5	--	18	--	0	--	10	--	0
SEP										
27...	1000	<.5	.00	1	30	0	0	0	70	0

DATE	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
JUN										
07...	--	--	--	--	--	--	--	--	--	--
SEP										
27...	5	.0	0	.0	.0	.0	.0	.2	.0	.0

DATE	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
JUN										
07...	--	--	--	--	--	--	--	--	--	--
SEP										
27...	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01461900 ALEXAUKEN CREEK NEAR LAMBERTVILLE, NJ

LOCATION.--Lat 40°22'51", long 74°56'54", Hunterdon County, Hydrologic Unit 02040105, at bridge on State Route 29, 0.4 mi (0.6 km) upstream from mouth, and 1.1 mi (1.8 km) north of Lambertville.

DRAINAGE AREA.--14.9 mi² (38.6 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
MAR 01...	1250	153	7.7	4.5	12.4	2.0	20	110	41
APR 26...	1130	205	8.6	15.0	11.8	2.0	140	17	74
JUN 07...	1300	205	7.7	20.0	9.9	<1.0	790	140	72
SEP 27...	1345	202	7.8	16.5	9.9	1.0	1300	240	75

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
MAR 01...	10	4.0	6.2	1.5	18	21	9.5	.0	11
APR 26...	18	7.1	8.4	1.9	35	36	12	.1	8.2
JUN 07...	18	6.6	7.8	2.0	33	31	11	.1	13
SEP 27...	19	6.7	7.5	2.1	43	30	9.3	.1	14

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR 01...	87	1.4	<.10	--	.70	2.1	.13	2.4
APR 26...	128	1.2	<.10	--	.30	1.5	.04	1.9
JUN 07...	130	1.8	<.10	--	1.3	3.1	.62	5.4
SEP 27...	134	2.4	.40	.40	.80	3.2	.12	1.4

01462000 DELAWARE RIVER AT LAMBERTVILLE, NJ

LOCATION.--Lat 40°21'53", long 74°56'57", Hunterdon County, Hydrologic Unit 02040105, at U.S. Route 202 bridge connecting Lambertville, NJ, and New Hope, PA, and 600 ft (183 m) upstream of Swan Creek.

DRAINAGE AREA.--6,680 mi² (17,301 km²).

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 05...	1300	235	--	17.0	10.5	--	--	--
MAR 07...	1130	84	7.2	.0	14.2	3.0	1300	1600
MAY 02...	1115	111	7.6	15.0	9.5	1.0	1700	5
JUN 06...	1130	130	7.7	20.0	8.5	1.0	80	12

DATE	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)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	93	22	9.2	10	1.9	54	31	13	.1
MAR 07...	23	6.5	1.6	3.4	1.0	10	10	5.9	.0
MAY 02...	41	11	3.3	5.1	1.0	22	15	7.3	.1
JUN 06...	--	--	--	--	--	--	--	--	--

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	2.8	140	--	--	--	--	--	4.1
MAR 07...	3.1	48	<1.0	.20	1.3	1.5	.47	7.8
MAY 02...	3.0	68	<1.0	<.10	--	.90	.08	1.3
JUN 06...	--	--	<1.0	<.10	--	2.0	.15	--

01462005 SWAN CREEK AT LAMBERTVILLE, NJ

LOCATION.--Lat 40°21'51", long 74°56'41", Hunterdon County, Hydrologic Unit 02040105, at bridge in Lambertville 250 ft (76 m) upstream from Delaware-Raritan Canal, 350 ft (107 m) downstream from State Route 29, and 500 ft (152 m) upstream from mouth.

DRAINAGE AREA.--3.28 mi² (8.50 km²).

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
APR 26...	1300	181	9.0	17.0	11.5	2.0	>24000	540	63	15	6.3	9.8
JUN 07...	1410	200	8.2	20.0	10.0	<1.0	330	1600	70	17	6.6	9.6

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR 26...	1.9	30	31	13	.1	14	122	<1.0	<.10	.50	.15	5.2
JUN 07...	2.0	38	28	14	.1	16	103	<1.0	<.10	2.0	.98	3.7

01462500 DELAWARE RIVER AT WASHINGTON CROSSING, NJ

LOCATION.--Lat 40°17'20", long 74°52'08", Mercer County, Hydrologic Unit 02040105, at bridge at Washington Crossing, 1.4 mi (2.3 km) upstream of Jacobs Creek.

DRAINAGE AREA.--6,735 mi² (17,444 km²).

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT									
05...	0930	234	--	16.5	10.4	--	--	--	93
MAR									
07...	1345	84	7.5	.0	14.3	4.0	490	>2400	23
MAY									
02...	1345	115	7.6	15.0	9.6	1.0	1100	8	41
JUN									
06...	1345	134	7.8	20.0	6.1	--	220	17	46

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
05...	22	9.3	9.6	1.9	52	--	31	13	.1
MAR									
07...	6.4	1.7	3.3	1.1	12	--	11	5.6	.0
MAY									
02...	11	3.3	5.4	1.1	22	--	15	7.4	.1
JUN									
06...	12	3.8	5.0	1.0	26	.0	16	7.5	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT								
05...	2.9	134	--	--	--	--	--	3.1
MAR								
07...	3.1	47	<1.0	.20	1.1	1.3	.42	5.0
MAY								
02...	3.0	66	<1.0	<.10	--	.50	.09	2.8
JUN								
06...	4.1	79	<1.0	<.10	--	2.1	.13	5.0

01462500 DELAWARE RIVER AT WASHINGTON CROSSING, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
JUN 06...	1345	60	2	0	0	1	20	14

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 (UG/L)
JUN 06...	330	26	60	<.5	13	0	30	0

01463500 DELAWARE RIVER AT TRENTON, NJ
(National stream quality accounting network, Pesticide program, and Radiochemical program station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft (137 m) upstream from Calhoun Street Bridge at Trenton, 0.5 mi (0.8 km) upstream from Assunpink Creek, and at mile 134.5 (216.4 km).

DRAINAGE AREA.--6,780 mi² (17,560 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1965, at datum 7.77 ft (2.368 m) higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft (152 m) downstream.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, and Wild Creek Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see Delaware River Basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--67 years, 11,772 ft³/s (333.4 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 329,000 ft³/s (9,320 m³/s) Aug. 20, 1955 (elevation, 28.60 ft or 8.717 m, from high-water mark in gage house) from rating curve extended above 230,000 ft³/s (6,510 m³/s); minimum, 1,180 ft³/s (33.4 m³/s) Oct. 31, 1963, elevation, 7.26 ft (2.213 m). Flow in Delaware and Raritan Canal not included.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft (8.69 m) National Geodetic Vertical Datum of 1929, discharge estimated, 295,000 ft³/s (8,350 m³/s). Maximum elevation since 1903, 30.6 ft (9.33 m) National Geodetic Vertical Datum of 1929, Mar. 8, 1904, from floodmark (ice jam).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50,000 ft³/s (1,420 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Elevation (ft)	Elevation (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Elevation (ft)	Elevation (m)
Jan. 3	2245	83200	2356	16.40	4.999	Feb. 26	1500	77600	2198	16.01	4.880
Jan. 8	1730	51100	1447	14.09	4.295	Mar. 7	1015	98200	2781	17.45	5.319
Jan. 22	0300	55500	1572	14.44	4.401	May 27	1045	63300	1793	15.02	4.578
Jan. 25	1145	*117000	3313	18.70	5.700						

Minimum discharge, 3,090 ft³/s (87.5 m³/s) Nov. 17, gage height, 8.06 ft (2.457 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3360	4220	5590	7250	20600	32300	17900	19700	29600	6040	4500	3430
2	3740	4010	5470	16500	16800	30200	16300	17900	22600	6040	4430	3330
3	3360	4250	4790	63300	15000	28600	16400	16200	19400	5350	4600	3460
4	3300	4390	4900	64200	13300	24100	17600	15400	17900	5510	5710	3880
5	3490	4530	6290	39000	12400	21700	18100	15500	17100	5280	4680	3680
6	3840	4350	6890	29100	11700	57400	17800	15400	15400	4790	4080	11800
7	4790	4180	7020	21700	10700	94200	16700	13400	13800	4530	3940	23300
8	4570	4220	7110	41300	10300	72400	15200	12300	12800	4500	3650	18500
9	4220	3710	12800	45900	10100	53500	14100	11800	11600	4530	3490	16000
10	3740	3550	17700	37400	9470	41200	18500	11100	10600	4220	3300	11400
11	3550	3980	17900	27600	9780	38200	22900	10900	10900	4010	3490	8560
12	3550	4430	15300	21300	10000	39500	22100	10700	12300	4010	4460	6980
13	3580	3710	12900	17000	10000	35200	20400	9780	13000	4010	8370	6460
14	3810	3240	11400	16600	9600	30400	21500	9320	11400	4250	7020	6000
15	4010	3330	9990	15600	9400	26500	24500	9210	9620	5550	6000	6160
16	4390	3330	9210	14200	9800	23200	25400	9110	8710	5090	4710	6630
17	5200	3150	8080	13600	9000	19900	23900	8420	7990	8030	4390	5750
18	5200	3650	7290	11700	8000	18200	21700	7710	7340	8610	3980	5750
19	4500	4750	7470	11100	7500	16800	19700	7430	6670	9060	3840	5050
20	3980	4390	6370	9680	8200	15600	17800	8520	6330	7340	3810	4680
21	3710	3910	6460	31200	8400	14700	16200	8910	5710	5910	4010	4460
22	3740	4320	7660	47100	8300	14200	14700	8270	5390	5160	3810	18400
23	4040	4110	8420	32100	8200	13800	12700	8910	5710	4820	3710	17300
24	3980	4180	8370	46600	10300	14200	11900	22600	5320	4280	3680	13500
25	3810	4640	11600	106000	20000	17400	11600	40200	4790	4750	3620	11800
26	3840	4430	9990	86800	67200	27400	11000	58300	4640	4570	3940	11100
27	3810	4220	8320	65500	46700	31000	12700	61600	4820	4460	4710	9160
28	3880	4640	7750	48900	34000	25600	18400	52900	4640	4150	4080	8080
29	4110	4790	7290	39000	---	21200	28100	42600	4710	4180	3840	7520
30	5550	5200	6630	31000	---	19800	24500	38700	5350	6760	3840	9730
31	4750	---	6500	25100	---	18900	---	34600	---	5430	3650	---
TOTAL	125400	123810	273460	1083330	424750	937300	550300	617390	316140	165220	135340	271850
MEAN	4045	4127	8821	34950	15170	30240	18340	19920	10538	5330	4366	9062
MAX	5550	5200	17900	106000	67200	94200	28100	61600	29600	9060	8370	23300
MIN	3300	3150	4790	7250	7500	13800	11000	7430	4640	4010	3300	3330

CAL YR 1978 TOTAL 4640610 MEAN 12710 MAX 79200 MIN 3150
WTR YR 1979 TOTAL 5024290 MEAN 13770 MAX 106000 MIN 3150

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1968 to current year.
pH: June 1968 to current year.
WATER TEMPERATURES: October 1944 to current year.
DISSOLVED OXYGEN: October 1962 to current year.
SUSPENDED-SEDIMENT DISCHARGE: September 1949 to current year.

INSTRUMENTATION.--Temperature recorder since October 1944, water-quality recorder since October 1962.

REMARKS.--Missing continuous water-quality records are the result of malfunction of sensor or sampling mechanism.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 400 micromhos Jan. 24, 1959; minimum, 50 micromhos Mar. 19, 1945.
pH: Maximum, 10.2 July 5, 6, 1971, June 14, 15, 1974; minimum, 5.3 June 22, 1972.
WATER TEMPERATURES: Maximum, 34.0°C June 18, 1957; minimum 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.3 mg/L July 9, 1974; minimum, 4.0 mg/L Nov. 9, 1972.
SEDIMENT CONCENTRATIONS: Maximum daily, 1,720 mg/L Nov. 26, 1950; minimum daily, less than 0.5 mg/L Oct. 21, 1952 and Jan. 18, 1970.
SEDIMENT LOADS: Maximum daily, 1,087,000 tons (986,126 tonnes) Aug. 20, 1955; minimum daily, less than 0.5 ton (0.45 tonnes) Oct. 21, 1952.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 644 mg/L Jan. 25, 1979; minimum daily mean, 1 mg/L Feb. 21, 22, 1979.
SEDIMENT LOADS: Maximum daily, 186,000 tons (169,000 Mg) Jan. 25, 1979; minimum daily, 19 tons (17 Mg) on Oct. 12, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 25...	1120	3910	207	7.6	12.0	1.0	11.7	--	--	12
NOV 28...	1100	4740	191	7.3	3.5	1.0	12.7	--	2.5	150
DEC 13...	1030	13100	141	7.1	2.0	6.0	13.8	--	2.5	K160
JAN 30...	1100	31000	112	7.3	2.0	4.0	13.8	19	1.1	K130
FEB 28...	1030	32500	128	7.3	2.0	19	14.0	13	2.2	1000
MAR 07...	1100	97900	--	--	--	--	--	--	--	--
14...	1120	30200	105	7.2	4.0	2.0	12.3	16	1.6	--
APR 11...	1045	22500	126	7.6	6.5	5.0	12.4	13	2.1	17
MAY 16...	1215	9370	164	7.8	19.5	2.0	9.2	--	2.1	--
JUN 20...	1100	6470	188	9.0	24.0	1.0	11.6	--	2.8	K3
JUL 18...	1230	7800	205	7.8	26.0	45	6.9	28	1.5	K2500
AUG 08...	1430	3650	226	8.6	28.0	5.0	10.4	--	4.4	K61
13...	1130	8860	--	--	--	--	--	--	--	--
SEP 19...	1130	4880	180	7.0	21.0	2.0	10.0	4	1.2	1800

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	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)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 25...	2	80	21	6.8	9.5	1.7	50	28	13	.1
NOV 28...	>10000	73	19	6.2	8.8	1.6	41	28	13	.1
DEC 13...	320	44	11	4.1	6.5	1.5	30	20	9.8	.1
JAN 30...	100	37	9.4	3.3	5.4	1.0	20	16	9.0	.1
FEB 28...	880	38	10	3.1	6.5	1.5	19	15	10	.0
MAR 07...	--	--	--	--	--	--	--	--	--	--
14...	320	37	9.8	3.0	5.0	1.0	19	15	7.9	.1
APR 11...	29	46	12	3.8	5.8	1.1	21	19	8.7	.1
MAY 16...	--	61	16	5.2	6.6	1.4	36	20	12	.0
JUN 20...	150	70	18	6.2	7.8	1.5	51	25	11	.1
JUL 18...	800	79	21	6.4	8.0	2.2	44	28	12	.1
AUG 08...	K45	84	22	7.0	9.6	2.1	53	26	14	.1
13...	--	--	--	--	--	--	--	--	--	--
SEP 19...	K74	65	17	5.5	8.2	1.3	36	24	11	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT 25...	2.0	127	3	32	--	1.2	.05	.26	.31
NOV 28...	2.8	117	8	102	29	1.2	.15	.26	.41
DEC 13...	4.5	86	17	601	38	1.1	.19	.34	.53
JAN 30...	4.4	69	43	3600	74	.65	.12	.18	.30
FEB 28...	3.9	78	70	6140	80	.71	.17	.58	.75
MAR 07...	--	--	285	75300	69	--	--	--	--
14...	4.0	71	16	1310	59	.74	.10	.20	.30
APR 11...	3.9	72	15	911	63	--	--	--	--
MAY 16...	3.6	87	9	228	73	.90	.07	.42	.49
JUN 20...	1.9	121	4	70	82	.71	.04	.39	.43
JUL 18...	4.8	143	129	2720	92	1.3	.12	.88	1.0
AUG 08...	4.0	145	18	177	77	1.0	.01	.67	.68
13...	--	--	65	1560	99	--	--	--	--
SEP 19...	3.8	115	12	158	68	.86	.05	1.2	1.2

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
OCT 25...	.00	.31	1.5	.12	--	.09	3.8	--	--
NOV 28...	.10	.31	1.6	.11	--	.09	--	3.2	4.2
DEC 13...	.10	.43	1.6	.08	--	.05	3.8	--	--
JAN 30...	.14	.16	.95	.04	--	.03	3.2	--	--
FEB 28...	.17	.58	1.5	.11	--	.05	--	6.0	--
MAR 07...	--	--	--	--	--	--	--	--	--
14...	.00	.30	1.0	.04	--	.02	9.7	--	--
APR 11...	--	--	--	--	--	--	--	--	--
MAY 16...	.22	.27	1.4	.09	.28	.06	--	2.6	.5
JUN 20...	.22	.21	1.1	.06	.18	.03	4.5	--	--
JUL 18...	.39	.61	2.3	.23	--	.09	6.2	--	--
AUG 08...	.39	.29	1.7	.13	--	.07	--	5.3	--
13...	--	--	--	--	--	--	--	--	--
SEP 19...	.30	.90	2.1	.09	--	.07	3.3	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
NOV 28...	1100	1	1	0	0	0	2	0	2	10
FEB 28...	1030	3	2	0	0	0	0	0	0	<10
MAY 16...	1215	2	2	0	0	0	2	1	1	<20
AUG 08...	1430	2	1	100	50	50	1	1	0	20

DATE	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
NOV 28...	10	0	1	1	0	4	2	2	120	70
FEB 28...	<10	0	2	0	2	6	4	2	1400	1300
MAY 16...	10	<10	1	1	0	5	2	3	220	200
AUG 08...	10	10	2	2	0	6	3	3	530	520

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
NOV 28...	50	12	0	12	100	90	10	<.5	.0	<.5
FEB 28...	80	5	4	1	60	20	40	<.5	.0	<.5
MAY 16...	20	16	16	0	70	60	10	<.5	.0	<.5
AUG 08...	10	6	6	0	60	60	1	<.5	<.0	<.5

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 28...	0	0	0	0	0	0	50	10	40
FEB 28...	0	0	0	0	0	0	50	40	10
MAY 16...	0	0	0	0	0	0	40	20	20
AUG 08...	0	0	0	0	0	0	20	10	9

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
JAN 30...	1100	<1.0	.5	1.6	.7	1.5	.7	.03	.40

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 28...	1100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 28...	1030	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 16...	1215	ND	--	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	1430	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 28...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 08...	ND	--	ND	--	ND	--	ND	--	ND	--

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)
NOV										
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB										
28...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY										
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
08...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV										
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB										
28...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY										
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
08...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	LENGTH OF EXPOSURE (DAYS)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)
NOV					
28...	33	8.66	6.14	47.2	4.12
FEB					
28...	28	.000	.000	.000	.000
MAY					
16...	34	10.0	7.64	8.48	2.21
AUG					
08...	20	2.36	2.05	.140	.000

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued
PHYTOPLANKTON ANALYSES, OCTOBER 1978 TO SEPTEMBER 1979

DATE	NOV 28,78		MAR 14,79		MAY 16,79		JUN 20,79	
TIME	1100		1120		1215		1100	
TOTAL CELLS/ML	420		400		7000		21000	
DIVERSITY: DIVISION	0.8		0.2		0.9		1.5	
.CLASS	0.8		0.2		0.9		1.5	
..ORDER	1.5		0.8		1.6		1.9	
...FAMILY	2.8		0.8		2.2		2.3	
....GENUS	0.0		0.8		2.5		2.4	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	14	4	--	-	*	0
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	1100	5
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	230	3	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	560	8	--	-
....CHODATELLA	--	-	--	-	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	560	8	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	190	3	260	1
....SELENASTRUM	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	58	14	--	-	560	8	6000°	29
....TETRASTRUM	--	-	--	-	--	-	260	1
..TETRASPORALES								
...PALMELLACEAE								
....GLOEOCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE	29	7	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	320	5	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	15	3	--	-	--	-	--	-
....EUASTRUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	3800°	54	2200	11
....MELOSIRA	29	7	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	140	2	--	-
....COCCONEIS	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	280	4	--	-
...DIATOMACEAE								
....DIATOMA	44	10	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	--	-	590	3
....SYNEDRA	120°	28	--	-	140	2	*	0
...GOMPHONEMATACEAE								
....GOMPHONEMA	15	3	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	87°	21	--	-	140	2	--	-
...NITZSCHIACEAE								
....NITZSCHIA	29	7	--	-	46	1	330	2
...TABELLARIACEAE								
....TABELLARIA	--	-	--	-	93	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	58	14	--	-	1700	8
....COCCOCHLORIS	--	-	--	-	--	-	130	1
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	330°	82	--	-	7900°	38
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	--	-

NOTE: ° - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued
PHYTOPLANKTON ANALYSES, OCTOBER 1978 TO SEPTEMBER 1979

DATE	JUL 18,79		AUG 8,79		SEP 19,79	
TIME	1230		1430		1130	
TOTAL CELLS/ML	20000		160000		3800	
DIVERSITY: DIVISION	1.2		0.7		1.1	
.CLASS	1.2		0.7		1.1	
..ORDER	1.3		0.8		1.5	
...FAMILY	2.2		1.0		2.4	
....GENUS	2.7		1.1		3.0	

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	--	-	*	0
...COELASTRACEAE						
....COELASTRUM	--	-	4100	3	34	1
...HYDRODICTYACEAE						
....PEDIASTRUM	1300	7	--	-	--	-
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	1600	8	2100	1	600°	16
....CHODATELLA	*	0	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	--	-
....KIRCHNERIELLA	2700	14	--	-	810°	21
....OOCYSTIS	--	-	--	-	--	-
....SELENASTRUM	--	-	6200	4	34	1
....TREUBARIA	--	-	*	0	--	-
...SCENEDESMACEAE						
....CRUCIGENIA	1300	7	--	-	--	-
....SCENEDESMUS	5200°	26	4800	3	1100°	28
....TETRASTRUM	--	-	--	-	69	2
..TETRASPORALES						
...PALMELLACEAE						
....GLOEOCYSTIS	--	-	--	-	140	4
..VOLVOCALES						
...CHLAMYDOMONADACEAE	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	3400	2	51	1
..ZYGNEMATALES						
...DESMIDIACEAE						
....COSMARIUM	--	-	--	-	--	-
....EUASTRUM	--	-	--	-	*	0
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	490	3	2400	1	120	3
....MELOSIRA	*	0	--	-	*	0
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	*	0	*	0
....COCCONEIS	--	-	--	-	34	1
...CYMBELLACEAE						
....CYMBELLA	--	-	*	0	*	0
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	86	2
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	490	3	1700	1	120	3
...TABELLARIACEAE						
....TABELLARIA	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	6100°	31	140000°	84	--	-
....COCCOCHLORIS	--	-	--	-	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	530	14
...OSCILLATORIACEAE						
....OSCILLATORIA	250	1	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	--	-	*	0

NOTE: ° - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	114	110	---	208	---
2	---	---	---	---	---	---	---	113	---	212	218	---
3	---	---	---	---	---	---	---	127	---	206	234	---
4	---	---	---	---	---	---	---	---	122	---	---	204
5	---	---	---	---	---	---	---	---	124	---	---	---
6	---	---	---	---	---	---	---	---	126	205	220	206
7	---	---	---	---	---	---	---	128	134	---	225	152
8	---	---	---	---	---	---	---	127	144	---	226	---
9	---	---	---	---	---	---	---	152	---	218	240	---
10	---	---	---	---	---	---	---	145	---	227	243	---
11	---	---	---	---	---	---	126	150	---	220	---	---
12	---	---	---	---	---	---	---	---	168	---	---	154
13	---	---	141	---	---	---	---	---	---	224	199	156
14	---	---	---	---	---	105	---	153	171	---	225	176
15	---	---	---	---	---	---	---	149	159	---	---	---
16	---	---	---	---	---	---	---	164	---	---	194	---
17	---	---	---	---	---	---	---	154	---	195	197	---
18	---	---	---	---	---	---	---	170	178	205	---	187
19	---	---	---	---	---	---	112	---	179	184	---	180
20	---	---	---	---	---	---	116	---	188	---	235	187
21	---	---	---	---	---	---	---	---	---	---	232	197
22	---	---	---	---	---	---	---	---	203	---	229	---
23	---	---	---	---	---	---	---	157	---	221	219	---
24	---	---	---	---	---	---	---	154	---	233	---	194
25	207	---	---	---	---	---	146	151	217	216	---	160
26	---	---	---	---	---	---	158	---	228	230	---	---
27	---	---	---	---	---	---	167	---	228	216	230	152
28	---	191	---	---	128	---	---	---	218	---	219	---
29	---	---	---	---	---	---	---	90	---	---	---	---
30	---	---	---	112	---	---	104	96	---	236	224	---
31	---	---	---	---	---	---	---	96	---	247	225	---
MEAN							133	136	170	217	222	177

PH (STANDARD UNITS), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	7.5	7.7	---	7.9	---
2	---	---	---	---	---	---	---	7.6	---	8.2	8.6	---
3	---	---	---	---	---	---	---	7.5	---	8.4	8.4	---
4	---	---	---	---	---	---	---	---	7.4	---	---	8.2
5	---	---	---	---	---	---	---	7.8	7.7	---	---	---
6	---	---	---	---	---	---	---	---	7.6	8.4	8.8	7.6
7	---	---	---	---	---	---	---	7.6	7.8	---	8.6	7.3
8	---	---	---	---	---	---	---	7.7	7.8	---	8.6	---
9	---	---	---	---	---	---	---	7.8	---	8.8	8.7	---
10	---	---	---	---	---	---	---	7.4	---	8.8	8.9	---
11	---	---	---	---	---	---	7.6	7.9	---	9.1	---	---
12	---	---	---	---	---	---	---	---	7.8	---	---	7.9
13	---	---	7.1	---	---	---	---	---	---	8.8	8.1	7.8
14	---	---	---	---	---	7.2	---	7.4	8.2	---	7.8	7.8
15	---	---	---	---	---	---	---	7.6	8.2	---	---	---
16	---	---	---	---	---	---	---	7.8	---	---	8.0	---
17	---	---	---	---	---	---	---	7.6	---	7.3	8.1	---
18	---	---	---	---	---	---	---	7.5	8.8	7.8	---	7.9
19	---	---	---	---	---	---	7.5	---	8.9	7.3	---	8.1
20	---	---	---	---	---	---	8.2	---	9.0	---	8.4	8.3
21	---	---	---	---	---	---	---	7.8	---	---	8.1	8.0
22	---	---	---	---	---	---	---	---	9.0	---	8.3	---
23	---	---	---	---	---	---	---	7.7	---	7.9	8.8	---
24	---	---	---	---	---	---	---	7.3	---	8.4	---	7.6
25	7.6	---	---	---	---	---	8.1	7.4	9.0	7.8	---	7.6
26	---	---	---	---	---	---	7.9	---	9.2	8.5	---	---
27	---	---	---	---	---	---	7.7	---	9.2	8.9	8.5	7.7
28	---	7.3	---	---	7.3	---	---	---	9.0	---	8.1	---
29	---	---	---	---	---	---	---	7.4	---	---	---	---
30	---	---	---	7.3	---	---	7.6	7.4	---	7.8	8.0	---
31	---	---	---	---	---	---	---	7.5	---	7.8	8.6	---
MEAN							7.8	7.6	8.4	8.2	8.4	7.8

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	14.5	18.5	---	27.0	---
2	---	---	---	---	---	---	---	14.5	---	22.5	30.0	---
3	---	---	---	---	---	---	---	14.5	---	22.5	28.0	---
4	---	---	---	---	---	---	---	---	17.5	---	---	26.5
5	---	---	---	---	---	---	---	---	20.0	---	---	---
6	---	---	---	---	---	---	---	---	22.0	21.5	29.0	25.0
7	---	---	---	---	---	---	---	15.5	22.0	---	27.0	24.0
8	---	---	---	---	---	---	---	17.0	22.5	---	28.0	---
9	---	---	---	---	---	---	---	19.0	---	24.5	28.5	---
10	---	---	---	---	---	---	---	21.0	---	22.5	27.5	---
11	---	---	---	---	---	---	6.5	22.0	---	24.0	---	---
12	---	---	---	---	---	---	---	---	18.5	---	---	23.0
13	---	---	2.0	---	---	---	---	---	---	26.0	21.0	22.0
14	---	---	---	---	---	4.0	---	18.5	21.5	---	23.0	22.5
15	---	---	---	---	---	---	---	18.0	20.0	---	---	---
16	---	---	---	---	---	---	---	19.5	---	---	21.5	---
17	---	---	---	---	---	---	---	18.0	---	27.5	21.0	---
18	---	---	---	---	---	---	---	17.5	23.0	---	---	21.0
19	---	---	---	---	---	---	8.0	---	23.0	---	---	21.0
20	---	---	---	---	---	---	9.0	---	23.5	---	23.5	20.5
21	---	---	---	---	---	---	---	17.0	---	---	22.5	19.5
22	---	---	---	---	---	---	---	---	22.5	---	24.0	---
23	---	---	---	---	---	---	---	18.0	---	26.0	26.0	---
24	---	---	---	---	---	---	---	18.0	---	28.0	---	16.5
25	12.0	---	---	---	---	---	15.0	16.5	20.5	27.5	---	16.0
26	---	---	---	---	---	---	15.5	---	22.0	28.5	---	18.0
27	---	---	---	---	---	---	16.5	---	22.0	28.5	27.0	---
28	---	3.5	---	---	2.0	---	---	---	23.0	---	26.5	---
29	---	---	---	---	---	---	---	14.5	---	---	---	---
30	---	---	---	2.0	---	---	16.0	16.0	---	25.5	26.0	---
31	---	---	---	---	---	---	---	16.5	---	26.0	27.0	---
MEAN							12.5	17.5	21.5	25.5	25.5	21.0

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	9.6	9.3	---	7.8	---
2	---	---	---	---	---	---	---	9.1	---	9.0	9.9	---
3	---	---	---	---	---	---	---	9.3	---	9.6	8.4	---
4	---	---	---	---	---	---	---	---	---	---	---	8.2
5	---	---	---	---	---	---	---	---	9.0	---	---	---
6	---	---	---	---	---	---	---	---	9.0	10.0	9.2	7.3
7	---	---	---	---	---	---	---	9.9	8.6	---	8.9	6.6
8	---	---	---	---	---	---	---	9.8	8.8	---	10.4	---
9	---	---	---	---	---	---	---	---	---	10.5	11.5	---
10	---	---	---	---	---	---	---	---	---	9.5	9.8	---
11	---	---	---	---	---	---	12.4	---	---	11.0	---	---
12	---	---	---	---	---	---	---	---	9.3	---	---	8.6
13	---	---	13.8	---	---	---	---	---	---	10.5	7.9	8.2
14	---	---	---	---	---	12.3	---	---	---	---	8.2	7.8
15	---	---	---	---	---	---	---	---	---	9.7	---	---
16	---	---	---	---	---	---	---	9.2	---	---	9.1	---
17	---	---	---	---	---	---	---	8.2	---	6.8	9.0	---
18	---	---	---	---	---	---	---	8.4	9.6	6.9	---	8.4
19	---	---	---	---	---	---	10.6	---	10.4	7.0	---	8.2
20	---	---	---	---	---	---	11.0	---	11.6	---	9.3	9.8
21	---	---	---	---	---	---	---	8.7	---	---	7.6	8.5
22	---	---	---	---	---	---	---	---	9.4	---	9.1	---
23	---	---	---	---	---	---	---	8.1	---	7.8	9.9	---
24	---	---	---	---	---	---	---	8.3	---	9.4	---	8.4
25	11.7	---	---	---	---	---	10.0	8.8	9.9	7.4	---	8.9
26	---	---	---	---	---	---	9.0	---	11.4	8.0	---	---
27	---	---	---	---	---	---	8.7	---	11.2	10.5	9.0	9.4
28	---	12.7	---	---	14.0	---	---	---	10.8	---	8.0	---
29	---	---	---	---	---	---	---	9.1	---	---	---	---
30	---	---	---	13.8	---	---	9.7	9.0	---	8.0	7.6	---
31	---	---	---	---	---	---	---	9.0	---	7.8	9.5	---
MEAN							10.2	9.0	9.9	8.8	9.0	8.3

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	3360	3	27	4220	6	72	5590	8	117
2	3740	3	30	4010	5	57	5470	6	82
3	3360	3	27	4250	5	57	4790	4	53
4	3300	3	27	4390	6	77	4900	4	53
5	3490	4	35	4530	7	86	6290	6	102
6	3840	5	52	4350	7	82	6890	9	169
7	4790	6	84	4180	6	71	7020	14	267
8	4570	8	101	4220	7	75	7110	25	482
9	4220	5	52	3710	5	49	12800	130	5680
10	3740	3	30	3550	5	45	17700	232	11100
11	3550	2	21	3980	6	63	17900	88	4040
12	3550	2	19	4430	8	96	15300	30	1280
13	3580	2	20	3710	6	60	12900	16	548
14	3810	3	31	3240	3	30	11400	9	283
15	4010	4	42	3330	4	34	9990	8	213
16	4390	6	72	3330	4	36	9210	6	147
17	5200	9	126	3150	4	34	8080	8	174
18	5200	7	94	3650	5	54	7290	6	114
19	4500	5	55	4750	9	110	7470	4	86
20	3980	4	43	4390	6	69	6370	4	63
21	3710	4	40	3910	3	36	6460	3	54
22	3740	5	48	4320	4	44	7660	4	92
23	4040	6	62	4110	3	33	8420	4	93
24	3980	5	49	4180	3	34	8370	4	90
25	3810	3	27	4640	4	50	11600	6	188
26	3840	4	38	4430	4	48	9990	10	257
27	3810	3	33	4220	3	36	8320	8	183
28	3880	2	24	4640	5	59	7750	8	167
29	4110	6	66	4790	6	81	7290	9	177
30	5550	8	124	5200	8	110	6630	8	139
31	4750	7	93	---	---	---	6500	9	153
TOTAL	125400	---	1592	123810	---	1788	273460	---	22646
		JANUARY			FEBRUARY			MARCH	
1	7250	8	164	20600	14	784	32300	38	3290
2	16500	45	3170	16800	12	530	30200	30	2440
3	63300	317	56600	15000	8	326	28600	28	2140
4	64200	160	28900	13300	7	251	24100	29	1910
5	39000	87	9320	12400	7	226	21700	25	1450
6	29100	48	3840	11700	5	165	57400	167	32100
7	21700	25	1510	10700	5	144	94200	277	70800
8	41300	92	11400	10300	4	111	72400	126	25200
9	45900	82	10300	10100	4	108	53500	57	8370
10	37400	32	3340	9470	3	77	41200	35	3930
11	27600	19	1430	9780	7	191	38200	30	3100
12	21300	8	507	10000	45	4570	39500	28	2950
13	17000	6	276	10000	62	9270	35200	22	2060
14	16600	6	269	9600	34	4560	30400	14	1130
15	15600	6	257	9400	17	2220	26500	14	974
16	14200	10	364	9800	8	1050	23200	11	693
17	13600	6	214	9000	3	411	19900	9	468
18	11700	4	126	8000	3	296	18200	9	402
19	11100	4	118	7500	2	194	16800	8	332
20	9680	4	111	8200	2	193	15600	6	267
21	31200	128	15400	8400	1	112	14700	5	209
22	47100	217	27400	8300	1	112	14200	6	223
23	32100	64	5550	8200	3	334	13800	6	226
24	46600	145	26300	10300	54	7630	14200	10	379
25	106000	644	186000	20000	237	37000	17400	16	714
26	86800	185	42900	67200	435	80400	27400	25	1900
27	65500	92	15900	46700	184	24800	31000	32	2640
28	48900	48	6160	34000	55	5090	25600	21	1460
29	39000	33	4590	---	---	---	21200	13	723
30	31000	23	1910	---	---	---	19800	9	470
31	25100	18	1240	---	---	---	18900	8	408
TOTAL	1083330	---	465566	424750	---	181155	937300	---	173358

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	17900	8	386	19700	22	1160	29600	18	1460
2	16300	7	313	17900	14	664	22600	15	963
3	16400	8	341	16200	11	497	19400	12	634
4	17600	9	374	15400	9	375	17900	12	550
5	18100	8	356	15500	8	342	17100	11	494
6	17800	8	384	15400	9	380	15400	10	428
7	16700	8	354	13400	8	285	13800	8	284
8	15200	6	258	12300	7	245	12800	9	315
9	14100	5	174	11800	7	211	11600	8	237
10	18500	10	484	11100	7	220	10600	7	206
11	22900	14	856	10900	8	235	10900	10	289
12	22100	14	827	10700	9	272	12300	20	676
13	20400	11	618	9780	9	243	13000	19	666
14	21500	14	800	9320	9	236	11400	12	384
15	24500	16	1070	9210	9	218	9620	7	193
16	25400	13	915	9110	9	225	8710	5	109
17	23900	10	678	8420	7	171	7990	3	71
18	21700	8	503	7710	6	117	7340	3	59
19	19700	7	398	7430	7	134	6670	3	55
20	17800	12	558	8520	8	181	6330	3	49
21	16200	10	432	8910	9	206	5710	2	35
22	14700	8	301	8270	6	145	5390	4	53
23	12700	6	215	8910	9	220	5710	4	62
24	11900	6	194	22600	138	8690	5320	3	47
25	11600	6	197	40200	102	10900	4790	4	46
26	11000	9	266	58300	108	17000	4640	5	64
27	12700	11	388	61600	76	12700	4820	6	80
28	18400	32	1630	52900	51	7450	4640	7	87
29	28100	54	4070	42600	33	3860	4710	7	94
30	24500	37	2490	38700	33	3440	5350	8	115
31	---	---	---	34600	22	2060	---	---	---
TOTAL	550300	---	20830	617390	---	73082	316140	---	8805
		JULY			AUGUST			SEPTEMBER	
1	6040	8	132	4500	21	254	3430	5	46
2	6040	16	261	4430	16	199	3330	6	53
3	5350	11	168	4600	33	404	3460	6	58
4	5510	9	138	5710	40	579	3880	8	81
5	5280	9	124	4680	32	410	3680	11	111
6	4790	7	90	4080	20	218	11800	92	3590
7	4530	5	67	3940	17	185	23300	334	21700
8	4500	6	71	3650	14	139	18500	268	13300
9	4530	6	72	3490	11	108	16000	201	8760
10	4220	5	53	3300	14	123	11400	109	3370
11	4010	4	38	3490	13	123	8560	39	915
12	4010	4	43	4460	22	287	6980	21	404
13	4010	5	52	8370	53	1210	6460	18	304
14	4250	7	81	7020	33	619	6000	16	256
15	5550	46	734	6000	19	311	6160	15	239
16	5090	49	705	4710	13	168	6630	11	202
17	8030	334	7440	4390	11	125	5750	9	146
18	8610	208	4780	3980	7	75	5750	12	180
19	9060	237	5780	3840	5	54	5050	9	125
20	7340	167	3310	3810	5	54	4680	7	86
21	5910	103	1650	4010	6	65	4460	8	99
22	5160	61	842	3810	6	60	18400	119	6830
23	4820	36	474	3710	4	36	17300	74	3500
24	4280	23	268	3680	5	47	13500	33	1220
25	4750	35	446	3620	5	49	11800	22	694
26	4570	33	406	3940	6	64	11100	20	598
27	4460	23	273	4710	10	131	9160	19	467
28	4150	14	159	4080	8	92	8080	17	380
29	4180	16	183	3840	9	94	7520	16	324
30	6760	54	1000	3840	8	79	9730	14	368
31	5430	34	506	3650	4	40	---	---	---
TOTAL	165220	---	30346	135340	---	6402	271850	---	68406
YEAR	5024290		1057976						

01463568 ASSUNPINK CREEK AT CARSONS MILLS, NJ

LOCATION.--Lat 40°13'05", long 74°33'08", Mercer County, Hydrologic Unit 02040105, at bridge at Carsons Mills, 0.1 mi (0.2 km) upstream from New Sharon Branch, and 1.3 mi (2.0 km) northeast of Pages Corner.

DRAINAGE AREA.--12.5 mi² (32.4 km²).

WATER-QUALITY RECORDS

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

COOPERATION.--Field data and samples for laboratory analyses supplied 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB										
08...	1030	--	101	5.9	.0	11.6	1.4	11	5	34
MAR										
29...	0900	25	112	6.0	8.0	11.0	2.8	5	4	34
JUN										
13...	1345	--	112	6.7	20.0	8.6	1.7	70	490	35
JUL										
17...	1130	--	117	7.0	25.5	9.1	3.1	3500	>2400	41
AUG										
07...	1130	29	102	6.6	24.0	7.7	3.2	540	540	34
SEP										
19...	1315	--	103	6.6	21.0	8.0	1.7	70	280	34

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB										
08...	7.1	4.0	3.1	2.5	5	0	4	--	23	7.7
MAR										
29...	7.4	3.8	3.4	2.2	6	0	5	--	24	7.9
JUN										
13...	7.3	4.0	3.6	2.0	10	0	8	--	20	7.6
JUL										
17...	8.4	4.8	4.1	2.3	15	0	12	--	21	9.4
AUG										
07...	7.4	3.8	3.5	2.5	15	0	12	--	17	8.1
SEP										
19...	7.3	3.8	3.6	2.5	20	0	16	.0	16	8.0

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	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-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB										
08...	.1	5.3	51	1.1	<1.0	1.1	2.2	.33	.30	2.6
MAR										
29...	.1	4.5	67	1.0	<.10	.60	1.6	.09	.09	--
JUN										
13...	.2	3.1	75	<1.0	<.10	1.1	--	.25	.10	7.8
JUL										
17...	.2	5.8	90	<1.0	<.10	1.8	--	.51	.43	6.2
AUG										
07...	.2	4.4	82	<1.0	<.10	1.5	--	.86	.05	12
SEP										
19...	.2	4.9	78	<1.0	<.03	1.5	--	.17	.03	4.4

01463568 ASSUNPINK CREEK AT CARSONS MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
SEP 19...	1315	0	2	10	20	0	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 (UG/L)
SEP 19...	2000	1	120	<.5	1	0	20	0

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ

LOCATION.--Lat 40°16'11", long 74°40'20", Mercer County, Hydrologic Unit 02040105, on left bank 200 ft (61 m) upstream from bridge on Quaker Bridge Road, 1.9 mi (3.1 km) south of Clarksville, 2.0 mi (3.2 km) upstream from Shipetaukin Creek, and 7.6 mi (12.2 km) upstream of mouth.

DRAINAGE AREA.--34.3 mi² (88.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements water years 1963-67. October 1972 to current year.

REVISED RECORDS.--WRD-NJ 1974: 1973(M). WDR-NJ-75-1: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 49.28 ft (15.021 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Some regulation from flood-control dams and ponds upstream.

AVERAGE DISCHARGE.--7 years, 58.7 ft³/s (1.662 m³/s), 23.24 in/yr (590 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft³/s (29.7 m³/s) July 21, 1975, gage height, 9.36 ft (2.853 m), from crest-stage gage; minimum daily, 7.0 ft³/s (0.20 m³/s) July 31, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 28, 1971, reached a stage of 10.9 ft (3.32 m), discharge, 1,500 ft³/s (42.5 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 11	0200	203	5.75	5.77	1.759	Feb. 25	1745	*865	24.5	8.72	2.658
Jan. 22	1230	744	21.1	8.28	2.524	Mar. 7	0615	517	14.6	7.38	2.249
Jan. 25	1215	704	19.9	8.13	2.478	May 25	2100	315	8.92	6.42	1.957

Minimum daily discharge, 8.0 ft³/s (0.27 m³/s) July 31 to Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	14	40	63	104	154	58	52	99	31	8.0	33
2	30	18	41	78	78	139	54	48	92	31	38	30
3	29	18	39	119	98	130	52	45	86	31	72	27
4	28	18	40	116	86	123	54	43	108	30	98	28
5	28	18	51	101	80	119	57	40	139	31	101	30
6	29	17	59	87	70	208	54	38	145	33	94	38
7	32	16	58	81	67	434	54	35	145	31	88	98
8	30	16	54	139	63	203	52	34	145	30	82	105
9	28	16	89	180	59	146	53	30	92	27	72	92
10	26	17	167	148	55	128	62	31	92	26	62	89
11	24	17	180	120	53	127	65	31	92	25	56	84
12	24	16	133	96	50	130	65	33	93	24	57	77
13	24	16	109	87	48	121	62	37	90	24	63	68
14	23	17	93	89	44	112	66	40	82	26	70	65
15	22	16	82	77	43	105	81	43	73	69	66	63
16	22	17	74	74	43	98	82	43	64	65	61	64
17	24	18	66	67	42	90	77	40	60	58	56	59
18	27	23	61	57	39	84	73	39	72	53	52	57
19	29	26	56	37	40	80	68	46	67	53	49	55
20	30	26	52	48	39	75	65	50	61	49	45	50
21	30	24	54	340	40	72	63	51	53	45	43	45
22	30	24	59	487	46	68	59	51	48	40	39	58
23	31	23	57	227	55	65	57	56	45	34	38	64
24	31	24	56	178	105	64	54	157	42	36	44	62
25	31	25	105	616	691	72	53	259	38	31	72	58
26	31	25	123	320	832	74	54	252	36	25	65	53
27	33	25	109	162	515	70	60	165	35	24	57	50
28	32	26	93	134	208	66	64	120	31	19	51	46
29	31	29	65	123	---	62	62	103	31	20	46	44
30	27	36	76	116	---	60	55	117	31	12	41	73
31	22	---	66	111	---	57	---	109	---	8.4	36	---
TOTAL	862	621	2407	4678	3693	3536	1835	2238	2287	1041.4	1822.0	1765
MEAN	27.8	20.7	77.6	151	132	114	61.2	72.2	76.2	33.6	58.8	58.8
MAX	33	36	180	616	832	434	82	259	145	69	101	105
MIN	22	14	39	37	39	57	52	30	31	8.4	8.0	27
CFSM	.81	.60	2.26	4.40	3.85	3.32	1.78	2.11	2.22	.98	1.71	1.71
IN.	.93	.67	2.61	5.07	4.01	3.83	1.99	2.43	2.48	1.13	1.98	1.91

CAL YR 1978 TOTAL 22686.0 MEAN 62.2 MAX 606 MIN 14 CFSM 1.81 IN 24.60
WTR YR 1979 TOTAL 26785.4 MEAN 73.4 MAX 832 MIN 8.0 CFSM 2.14 IN 29.05

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963, 1965, 1967, and 1979.

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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
JAN 23...	1115	216	71	5.7	.0	13.4	1.8	130	--	18	4.1
MAR 29...	1220	59	125	6.6	8.0	12.0	2.9	8	2	40	8.6
JUN 13...	1000	92	129	7.0	20.0	8.9	3.2	210	230	39	8.5
JUL 30...	1100	9.5	112	6.7	24.0	8.6	8.9	2400	>24000	37	8.3
AUG 30...	1510	41	108	6.6	27.5	8.4	2.8	50	110	33	7.0
SEP 19...	0915	56	104	7.3	21.0	9.9	3.2	80	49	34	7.5

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	1.9	4.0	1.8	1	0	1	--	11	7.4	.1
MAR 29...	4.4	5.4	2.4	7	0	6	--	24	12	.1
JUN 13...	4.4	4.6	2.2	17	0	14	.0	18	9.5	.2
JUL 30...	3.9	4.2	3.0	17	0	14	--	16	9.7	.1
AUG 30...	3.7	3.7	2.6	17	0	14	--	13	9.2	.2
SEP 19...	3.8	4.4	3.0	23	0	19	.0	16	9.8	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 23...	3.0	42	1.0	.16	1.2	1.4	2.4	.72	.51	5.7
MAR 29...	4.7	79	1.5	<.10	--	.70	2.2	.11	.11	--
JUN 13...	4.9	87	1.0	<.10	--	1.2	2.2	.11	.11	8.0
JUL 30...	6.1	81	1.0	.40	1.1	1.5	2.5	.15	.07	13
AUG 30...	3.8	79	<1.0	<.10	--	.90	--	.15	.12	8.2
SEP 19...	5.3	77	<1.0	.90	.20	1.1	--	.17	.02	4.1

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	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)
JUN 13...	1000	--	--	--	--	40	2	--	0	9	0
SEP 19...	0915	4600	13	.0	13	0	2	0	0	30	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JUN 13...	--	10	--	--	3	--	1800	--	2	--	190
SEP 19...	<10	20	20	<10	3	<10	1500	10000	2	20	70

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 (UG/L)
JUN 13...	--	<.5	--	12	--	0	--	30	--	0
SEP 19...	160	<.5	.00	2	<10	0	0	20	30	1

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 13...	--	--	--	--	--	--	--	--	--	--
SEP 19...	5	.0	2	2.5	3.7	2.5	.0	.6	.0	.0

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 13...	--	--	--	--	--	--	--	--	--	--
SEP 19...	.0	.1	.0	.0	.0	.0	.0	.0	.0	0

01464000 ASSUNPINK CREEK AT TRENTON, NJ

LOCATION.--Lat 40°13'27", long 74°44'58", Mercer County, Hydrologic Unit 02040105, on left bank at Chambers Street Bridge in Trenton, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--89.4 mi² (231.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1923 to current year.

GAGE.--Water-stage recorder. Concrete control since July 10, 1932. Datum of gage is 24.76 ft (7.547 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good. Records include water diverted from outside the basin since February 1954 for municipal supply which returns to Assunpink Creek through Ewing-Lawrence Sewerage Authority Treatment Plant, 2.4 mi (3.9 km) above station (records given herein). In addition there is an average inflow of about 2.0 ft³/s (0.057 m³/s) from industrial use of water that originates outside the basin. Some diversion for irrigation in headwater area during summer months.

AVERAGE DISCHARGE.--56 years, 128 ft³/s (3.625 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,450 ft³/s (154 m³/s) July 21, 1975, gage height, 14.61 ft (4.453 m), from high-water mark in gage house; minimum, 1.0 ft³/s (0.028 m³/s) Aug. 21, Oct. 22, 1931, gage height, 0.25 ft (0.076 m); minimum daily, 4.0 ft³/s (0.11 m³/s) July 21, Aug. 8, Sept. 2, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s (25.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	1145	1180	33.4	6.66	2.030	Feb. 26	0900	2610	73.9	10.27	3.130
Jan. 8	1315	1290	36.5	6.95	2.118	Mar. 6	1830	1260	35.7	6.89	2.100
Jan. 21	1400	*2800	79.3	10.76	3.280	May 24	0315	1770	50.1	8.19	2.496
Jan. 25	0115	2240	63.4	9.36	2.853	July 17	0200	1730	49.0	8.07	2.460

Minimum discharge, 45 ft³/s (1.27 m³/s) Nov.12 13, gage height, 2.67 ft (0.814 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	56	112	177	256	435	127	118	232	97	76	79
2	92	56	95	491	190	374	135	111	202	113	152	74
3	80	56	87	520	207	337	145	111	225	77	207	72
4	77	54	172	295	191	308	149	110	479	101	198	73
5	74	52	225	237	175	303	158	99	381	90	173	79
6	119	54	159	205	158	862	135	93	307	77	164	390
7	82	55	146	259	153	891	123	89	248	72	148	227
8	72	54	144	1060	147	560	115	87	207	65	136	179
9	68	54	817	534	140	382	216	86	186	65	120	158
10	66	53	617	378	130	317	265	97	167	64	129	148
11	66	53	386	292	122	424	173	86	358	62	133	136
12	66	49	309	239	118	341	155	119	324	60	298	123
13	64	53	254	249	115	293	140	95	215	60	217	113
14	67	54	216	324	110	271	351	111	179	179	152	160
15	59	54	189	255	114	246	294	116	162	245	133	173
16	61	58	168	212	108	219	218	108	158	315	118	118
17	66	62	153	189	97	204	189	97	179	694	106	104
18	62	109	138	170	91	187	169	121	179	488	107	97
19	62	80	126	146	94	177	152	190	154	378	111	95
20	61	76	121	154	95	168	140	146	129	169	90	84
21	59	72	227	2120	116	159	129	128	116	134	86	115
22	60	69	165	1320	235	151	121	118	107	116	82	470
23	66	68	139	736	203	145	118	268	115	107	78	190
24	61	85	186	826	764	245	112	1210	90	97	282	141
25	57	70	625	1450	1680	225	111	1200	87	87	293	123
26	59	66	330	809	2090	182	141	605	83	76	154	113
27	73	72	257	488	1140	163	246	417	79	73	122	104
28	61	93	212	384	646	150	152	339	79	62	113	97
29	54	98	159	336	---	148	134	321	99	62	113	113
30	55	175	163	302	---	142	125	310	78	327	86	504
31	57	---	148	280	---	134	---	277	---	97	91	---
TOTAL	2102	2060	7245	15437	9685	9143	4938	7383	5604	4709	4468	4652
MEAN	67.8	68.7	234	498	346	295	165	238	187	152	144	155
MAX	119	175	817	2120	2090	891	351	1210	479	694	298	504
MIN	54	49	87	146	91	134	111	86	78	60	76	72
(†)	11.7	11.0	14.2	20.7	16.2	18.8	16.9	15.8	16.1	13.9	14.8	14.6

CAL YR 1978 TOTAL 64931 MEAN 178 MAX 2070 MIN 49 † 14.2
WTR YR 1979 TOTAL 77426 MEAN 212 MAX 2120 MIN 49 † 15.4

† Inflow from outside the basin, 2.4 mi (3.9 km) upstream of station through plant of Ewing-Lawrence Sewerage Authority, in cubic feet per second.

01464000 ASSUNPINK CREEK AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 04...	0900	66	390	6.8	16.0	6.0	6.2	160000	5400	79	20

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	7.0	34	5.2	56	0	46	.0	56	43	.6

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	6.9	210	1.5	.05	1.1	1.2	2.7	1.7	1.4	7.9

DATE	TIME	NITRO-GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)
OCT 04...	0900	610	3.8	4.3	30	<0	0	0	<10	10	20	<10

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)
OCT 04...	17	0	1200	3800	260	140	160	<.5	.09	54	<10	1

DATE	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 04...	70	180	4	270	.0	22	7.2	.0	4.8	.0	2.2	.0

DATE	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 04...	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ

LOCATION.--Lat 40°08'15", long 74°36'02", Mercer County, Hydrologic Unit 02040201, on right bank upstream from highway bridge on Extonville, 0.5 mi (0.8 km) upstream from Pleasant Run, and 0.7 mi (1.1 km) downstream from Mercer-Monmouth County line.

DRAINAGE AREA.--83.6 mi² (216.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1940 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.94 ft (7.602 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated occasionally by lakes above station.

AVERAGE DISCHARGE.--38 years (1940-51, 1952-79), 136 ft³/s (3.851 m³/s), 22.09 in/yr (561 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,860 ft³/s (138 m³/s) Sept. 1, 1978, gage height, 14.18 ft (4.322 m); minimum 13.1 ft³/s (0.37 m³/s) Feb. 14, 1942 (result of freezeup); minimum daily, 16 ft³/s (0.45 m³/s) Aug. 30 to Sept. 3, Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s (21.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 10	0800	1310	37.1	8.76	2.670	Jan. 25	1200	2060	58.3	10.29	3.136
Dec. 25	2400	800	22.7	7.08	2.158	Feb. 25	1400	*3440	97.4	12.36	3.767
Jan. 8	2400	1120	31.7	8.22	2.505	Mar. 7	0800	1510	42.8	9.24	2.816
Jan. 22	1200	1870	53.0	9.94	3.030	Sept. 7	0900	999	28.3	7.82	2.384

Minimum discharge, 54 ft³/s (1.53 m³/s) July 14, gage height, 2.54 ft (0.774 m).

REVISIONS.--The maximum discharge for the water year 1971 has been revised to 4640 ft³/s (131.4 m³/s) Aug. 28, 1971, gage height, 13.93 ft (4.246 m); superseding figure published in the report for 1971.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	70	166	150	154	396	123	121	140	74	61	93
2	74	70	123	238	132	309	121	110	127	74	64	96
3	74	68	110	617	130	265	132	105	117	72	132	104
4	74	70	163	402	121	225	157	104	288	67	418	95
5	103	70	294	217	116	205	171	102	378	85	470	98
6	88	70	272	166	127	532	150	95	240	75	220	421
7	79	70	164	177	112	1330	128	92	176	66	139	845
8	72	72	136	696	123	725	117	88	145	59	95	388
9	68	72	479	917	112	408	132	85	123	59	72	168
10	68	68	1020	396	103	269	269	81	112	56	67	114
11	68	68	350	217	110	318	192	79	122	62	66	96
12	66	68	210	171	119	349	154	88	225	62	164	86
13	64	68	175	161	127	234	138	123	151	58	329	80
14	64	68	160	323	130	216	184	157	113	61	205	82
15	64	70	146	261	132	233	327	152	100	240	134	125
16	62	74	136	175	136	177	219	129	90	130	105	99
17	68	83	146	152	134	160	169	112	118	78	92	80
18	70	116	136	142	134	152	150	110	256	72	84	74
19	70	125	125	136	134	144	133	183	157	114	86	70
20	74	88	119	132	142	150	123	237	105	81	82	67
21	72	86	189	1010	146	134	117	186	91	69	76	65
22	70	81	178	1490	227	130	112	143	85	66	74	133
23	68	77	142	723	363	127	110	162	102	62	70	134
24	68	94	140	530	737	142	108	540	109	95	69	110
25	74	92	566	1780	2990	267	109	602	100	93	69	94
26	74	81	574	925	2590	194	113	581	85	75	67	86
27	81	79	278	484	1410	152	192	275	80	74	64	80
28	83	127	171	324	650	140	171	207	73	66	66	74
29	74	134	138	248	---	132	154	173	80	60	80	76
30	70	194	121	194	---	130	135	171	80	67	107	94
31	70	---	121	166	---	125	---	147	---	73	112	---
TOTAL	2238	2573	7248	13720	11641	8470	4610	5540	4168	2445	3939	4227
MEAN	72.2	85.8	234	443	416	273	154	179	139	78.9	127	141
MAX	103	194	1020	1780	2990	1330	327	602	378	240	470	845
MIN	62	68	110	132	103	125	108	79	73	56	61	65
CFSM	.86	1.03	2.80	5.30	4.98	3.27	1.84	2.14	1.66	.94	1.52	1.69
IN.	1.00	1.14	3.23	6.10	5.18	3.77	2.05	2.47	1.85	1.09	1.75	1.88

CAL YR 1978 TOTAL 68802 MEAN 188 MAX 2570 MIN 45 CFSM 2.25 IN 30.61
WTR YR 1979 TOTAL 70819 MEAN 194 MAX 2990 MIN 56 CFSM 2.32 IN 31.51

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to June 1970.
SUSPENDED-SEDIMENT DISCHARGE: February 1965 to June 1970.

COOPERATION.--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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 04...	1245	70	165	7.1	14.0	8.1	5.5	400	500	54	17
JAN 18...	1115	144	137	6.9	1.0	12.9	1.8	240	23	38	11
APR 04...	0900	155	137	6.8	10.0	9.8	2.5	350	220	44	13
JUN 11...	1000	101	136	7.0	20.5	7.0	3.0	1100	>2400	43	13
JUL 24...	1245	99	161	6.8	22.5	5.8	5.1	3500	>24000	52	16
AUG 30...	1320	108	152	6.7	24.5	6.2	1.6	540	2200	42	13
SEP 20...	1115	68	157	6.9	16.0	7.2	3.0	1300	340	49	15

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	2.9	7.0	3.3	32	0	26	--	23	13	.2
JAN 18...	2.6	6.5	2.1	22	0	18	--	22	11	.1
APR 04...	2.8	6.0	2.4	1	0	1	--	24	11	.1
JUN 11...	2.6	4.5	2.4	24	0	14	.0	20	11	.2
JUL 24...	3.0	6.8	3.4	46	0	38	--	20	12	.3
AUG 30...	2.4	6.5	2.8	29	0	24	--	16	11	.2
SEP 20...	2.8	7.6	3.0	37	0	30	.0	20	12	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	10	108	1.4	.40	.00	.40	1.8	.31	.31	7.6
JAN 18...	8.9	83	1.0	.58	.11	.69	1.7	--	.38	3.4
APR 04...	8.2	88	1.0	.30	.40	.70	1.7	.69	.40	5.4
JUN 11...	9.1	97	1.2	.20	1.0	1.2	2.4	1.0	.51	5.7
JUL 24...	10	121	1.5	.40	1.0	1.4	2.9	.86	.74	12
AUG 30...	9.8	89	1.0	.30	1.8	2.1	3.1	1.5	.53	12
SEP 20...	10	120	1.2	.90	1.2	2.1	3.3	.73	.37	7.6

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	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)
OCT 04...	1245	900	2.6	2.7	--	--	0	--	--	--
JUN 11...	1000	--	--	--	60	2	--	0	30	1
SEP 20...	1115	--	--	--	20	1	--	10	50	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
OCT 04...	<10	--	10	<10	--	<10	--	21000	--	<10
JUN 11...	--	30	--	--	6	--	3800	--	11	--
SEP 20...	--	10	--	--	4	--	3100	--	3	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)
OCT 04...	--	60	--	.00	--	<10	--	--	120	--
JUN 11...	70	--	<.5	--	10	--	0	40	--	2
SEP 20...	60	--	<.5	--	3	--	0	20	--	3

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	0	.0	3	4.5	1.2	1.0	.0	.5	.0	.0
JUN 11...	--	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
JUN 11...	--	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	--	--	--	--	--	--	--	--

01464505 CROSSWICKS CREEK AT GROVEVILLE, NJ

LOCATION.--Lat 40°10'26", long 74°40'48", Mercer County, Hydrologic Unit 02040201, at bridge on U.S. Route 130 in Groveville, 0.3 mi (0.5 km) upstream from Doctors Creek, and 0.6 mi (1.0 km) southwest of Yardville.

DRAINAGE AREA.--94.5 mi² (244.8 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 04...	1500	194	7.2	14.0	9.0	3.2	5400	4900	54	16
FEB 08...	1100	225	6.6	1.0	13.4	1.9	49	920	52	14
MAR 22...	0930	152	7.2	8.0	9.7	1.9	<2	540	44	12
JUN 07...	0930	137	6.8	19.0	8.0	2.3	330	33	40	11
JUL 17...	1445	160	6.9	25.0	6.5	2.9	1300	920	46	13
AUG 06...	1330	94	6.3	25.0	7.1	2.9	490	130	30	8.6

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 04...	3.5	12	3.8	29	0	24	.0	26	20	.3
FEB 08...	4.2	17	2.7	20	0	16	--	28	29	.2
MAR 22...	3.5	8.2	2.5	18	0	15	--	26	16	.1
JUN 07...	3.0	7.2	2.6	17	0	14	--	21	15	.2
JUL 17...	3.2	9.1	3.5	27	0	22	--	24	15	.2
AUG 06...	2.0	3.9	2.3	12	0	10	--	16	7.0	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	10	127	1.6	.20	.10	.30	1.9	.76	.41	8.9
FEB 08...	9.6	121	1.3	.60	.80	1.4	2.7	.58	.46	4.0
MAR 22...	8.5	100	1.2	.38	1.6	2.0	3.2	.76	.52	4.9
JUN 07...	8.3	129	1.2	<.10	--	2.0	3.2	.66	.44	15
JUL 17...	8.2	112	1.0	.30	3.6	3.9	4.9	1.6	.81	9.0
AUG 06...	7.3	82	<1.0	.20	1.2	1.4	--	1.3	.40	25

01464505 CROSSWICKS CREEK AT GROVEVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	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)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)
OCT 04...	1500	830	4.9	5.4	30	1	0	0	<10	<10	<10	<10

DATE	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, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 04...	11	<10	4100	8500	20	100	60	<.5	.00	11	<10	0

DATE	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	70	40	0	14	.0	18	14	.0	4.9	.0	2.3	.0

DATE	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01464515 DOCTORS CREEK AT ALLENTOWN, NJ

LOCATION.--Lat 40°10'37", long 74°35'57", Monmouth County, Hydrologic Unit 02040201, at bridge on Breza Road in Allentown, and 0.8 mi (1.3 km) downstream from Conines Millpond dam.

DRAINAGE AREA.--17.2 mi² (44.5 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
FEB 08...	1330	156	6.8	.0	13.4	.7	221	8	56	12
MAR 23...	0845	130	6.8	10.5	10.8	1.8	>2400	49	45	10
JUN 11...	1300	141	7.0	21.0	7.0	2.1	1700	920	51	12
JUL 17...	1300	163	7.0	26.0	6.9	2.1	490	540	56	13
AUG 07...	1415	134	7.0	25.0	8.4	2.0	330	540	46	11
SEP 20...	0845	147	7.1	16.5	8.6	.3	1300	110	51	12

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 08...	6.2	5.5	2.8	15	0	12	--	25	14	.1
MAR 23...	4.9	5.0	2.9	17	0	14	--	24	14	.1
JUN 11...	5.2	4.1	2.2	29	0	24	--	20	12	.2
JUL 17...	5.8	5.3	3.3	41	0	34	--	19	14	.2
AUG 07...	4.6	4.4	3.9	34	0	28	--	14	14	.2
SEP 20...	5.0	5.7	4.2	39	0	32	.0	16	13	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 08...	9.5	87	2.1	.50	.70	1.2	3.3	.46	.31	2.0
MAR 23...	6.0	86	1.5	.30	1.4	1.7	3.2	.29	.14	2.8
JUN 11...	7.9	101	1.0	.30	.60	.90	1.9	.86	.23	6.5
JUL 17...	5.4	112	<1.0	.70	1.6	2.3	--	1.0	.49	5.1
AUG 07...	7.4	--	<1.0	.20	1.1	1.3	--	.18	.18	--
SEP 20...	5.8	102	.48	1.3	.28	1.6	2.1	.41	.33	1.3

01464515 DOCTORS CREEK AT ALLENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
SEP 20...	0845	10	1	0	30	0	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 (UG/L)
SEP 20...	1200	1	40	<.5	2	0	20	0

01464522 DOCTORS CREEK AT ROUTE 130 NEAR YARDVILLE, NJ

LOCATION.--Lat 40°10'31", long 74°40'33", Mercer County, Hydrologic Unit 02040201, at bridge on U.S. Route 130, 0.3 mi (0.5 km) upstream from mouth, 0.4 mi (0.7 km) northwest of Groveville, 0.6 mi (1.0 km) southwest of Yardville, and 2.5 mi (4.0 km) southwest of Haines Corner.

DRAINAGE AREA.--25.8 mi² (66.8 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT										
06...	0915	165	7.1	15.0	8.6	6.9	>2400	>2400	57	13
FEB										
08...	1230	200	6.9	1.0	13.1	.9	13	2	61	13
MAR										
22...	1145	165	6.9	9.5	10.9	--	2	2	50	11
JUN										
07...	1245	157	7.0	20.0	8.4	1.6	220	330	52	12
JUL										
18...	0900	190	7.2	23.5	7.2	2.7	490	330	61	14
AUG										
06...	1015	149	7.0	24.5	7.6	4.4	>2400	>2400	46	11
SEP										
20...	1500	176	7.3	17.0	9.1	1.9	270	49	56	13

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT										
06...	5.9	7.6	3.7	34	0	28	.0	21	15	.2
FEB										
08...	7.0	8.8	3.0	17	0	14	--	31	20	.1
MAR										
22...	5.5	7.6	2.8	16	0	13	--	28	16	.1
JUN										
07...	5.4	6.1	2.9	21	0	17	--	24	14	.2
JUL										
18...	6.3	8.9	3.4	34	0	28	--	23	20	.2
AUG										
06...	4.6	5.7	4.2	27	0	22	--	17	13	.3
SEP										
20...	5.6	8.5	4.0	39	0	32	--	20	17	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
06...	5.6	106	1.2	.74	1.9	2.6	3.8	1.8	.57	5.3
FEB										
08...	9.2	102	2.6	.80	.70	1.5	4.1	.74	.54	2.5
MAR										
22...	6.7	101	2.0	.58	1.2	1.8	3.8	.46	.38	5.4
JUN										
07...	8.7	109	1.8	.40	1.5	1.9	3.7	.39	.38	7.8
JUL										
18...	7.2	149	1.6	.70	2.2	2.9	4.5	.91	.87	9.2
AUG										
06...	7.9	--	1.0	<.10	--	1.8	2.8	.88	.28	6.9
SEP										
20...	6.6	113	1.3	1.5	.70	2.2	3.5	.69	.58	--

01464522 DOCTORS CREEK AT ROUTE 130 NEAR YARDVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
OCT 06...	0915	30	1	0	10	14	6200

DATE	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 (UG/L)
OCT 06...	110	<.5	12	0	60	0

01464531 BLACKS CREEK AT BORDENTOWN, NJ

LOCATION.--Lat 40°08'14", long 74°42'42", Burlington County, Hydrologic Unit 02040201, at bridge on U.S. Route 130 in Bordentown, 1.0 mi (1.6 km) northeast of Fieldsboro, 1.3 mi (2.1 km) upstream of mouth, and 3.1 mi (4.9 km) southwest of Groveville.

DRAINAGE AREA.--14.5 mi² (37.6 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 02...	1415	232	7.1	16.0	8.8	16	16000	700	68	18
FEB 20...	1315	258	6.7	.5	13.2	1.6	920	110	60	15
MAR 26...	1120	175	6.7	9.0	9.5	1.1	<2	<2	52	12
JUN 06...	1400	179	6.8	19.0	8.4	1.0	40	5	56	13
JUL 18...	1030	191	6.9	23.0	6.2	5.7	230	2400	63	16
AUG 08...	1300	180	7.2	28.5	--	3.0	5400	27	60	16

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 02...	5.7	13	5.4	45	0	37	.0	29	23	.4
FEB 20...	5.4	17	3.6	22	0	18	--	35	34	.1
MAR 26...	5.3	8.3	3.9	23	0	19	--	33	18	.2
JUN 06...	5.6	7.0	3.8	20	0	16	--	30	15	.2
JUL 18...	5.5	8.7	4.0	40	0	33	--	25	19	.3
AUG 08...	4.8	7.7	4.8	39	0	32	--	26	16	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 02...	13	147	1.1	1.6	2.9	4.5	5.6	1.7	.88	6.0
FEB 20...	12	149	1.8	1.2	.70	1.9	3.7	1.0	.53	3.1
MAR 26...	11	113	1.7	.50	1.5	2.0	3.7	1.0	.60	4.6
JUN 06...	12	116	2.1	.30	2.1	2.4	4.5	1.0	.59	6.4
JUL 18...	13	140	1.0	<.10	--	2.6	3.6	1.4	.76	7.1
AUG 08...	13	131	1.2	.23	1.2	1.4	2.6	.85	.75	9.2

01464531 BLACKS CREEK AT BORDENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 02...	1415	30	0	0	10	9	2000

DATE	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 (UG/L)
OCT 02...	140	<.5	13	0	640	0

01464540 CRAFTS CREEK AT HEDDING, NJ

LOCATION.--Lat 40°06'01", long 74°45'23", Burlington County, Hydrologic Unit 02040201, at bridge on Old York Road in Hedding, 1.6 mi (2.6 km) southeast of Roebling, and 2.2 mi (3.5 km) upstream from mouth.

DRAINAGE AREA.--10.6 mi² (27.5 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
JAN 31...	1045	244	6.7	2.0	12.7	.6	49	9	64	13
MAR 27...	0830	247	6.5	4.0	11.6	1.4	110	17	63	13
JUN 05...	1300	187	6.8	18.0	8.4	--	5400	2200	57	12
JUL 18...	1215	215	6.6	23.5	7.3	1.5	140	1400	61	13
AUG 17...	0800	201	6.7	17.0	8.2	1.0	3500	400	--	--

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
JAN 31...	7.7	16	3.4	2	0	2	40	34	.1	9.8
MAR 27...	7.5	17	3.5	10	0	8	39	37	.1	8.9
JUN 05...	6.6	9.9	3.6	20	0	16	27	23	.1	10
JUL 18...	7.0	12	3.8	16	0	13	32	27	.2	12
AUG 17...	--	--	--	15	0	12	--	--	--	--

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 31...	138	2.8	<.10	--	.54	3.3	.04	.04	1.5
MAR 27...	172	1.9	<.10	--	.70	2.6	.09	.09	2.7
JUN 05...	132	2.0	.30	1.6	1.9	3.9	.56	.29	7.3
JUL 18...	190	1.6	<.10	--	2.1	3.7	.13	<.01	9.9
AUG 17...	--	1.6	<.10	--	.30	1.9	.07	--	--

01464580 ASSISCUNK CREEK AT COLUMBUS, NJ

LOCATION.--Lat 40°03'25", long 74°43'27", Burlington County, Hydrologic Unit 02040201, at bridge on U.S. Route 206, 1.1 mi (1.8 km) south of Columbus, 1.2 mi (1.9 km) downstream of Annaricken Brook, and 2.1 mi (3.4 km) northwest of Jobstown.

DRAINAGE AREA.--8.28 mi² (21.45 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-63, 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
FEB 06...	1400	179	6.9	.0	11.0	.9	<2	2	58	13
MAR 26...	0920	147	6.2	6.5	10.1	.7	33	39	46	11
JUN 06...	1030	139	6.4	17.0	7.6	.7	16000	5400	50	12
JUL 19...	1445	155	6.4	22.0	6.0	1.3	5400	170	49	12
AUG 17...	1000	155	6.4	14.0	8.6	.9	220	1100	49	13

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
FEB 06...	6.2	6.7	3.9	12	0	10	40	18	.1	14
MAR 26...	4.5	4.4	4.3	15	0	12	38	11	.2	13
JUN 06...	4.8	3.8	4.1	21	0	17	29	8.0	.2	14
JUL 19...	4.6	4.3	4.4	16	0	13	35	10	.3	18
AUG 17...	4.1	3.7	4.6	15	0	9	36	12	.2	17

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 06...	119	1.6	<.10	--	.60	2.2	.22	.06	1.3
MAR 26...	107	1.0	<.10	--	1.3	2.3	.25	.20	3.5
JUN 06...	109	1.0	.30	1.9	2.2	3.2	1.2	.93	11
JUL 19...	123	<1.0	<.10	--	1.4	--	.47	.10	5.1
AUG 17...	107	1.0	<.10	--	.70	1.7	.19	.07	3.1

01464590 ASSISCUNK CREEK NEAR BURLINGTON, NJ

LOCATION.--Lat 40°04'19", long 74°47'57", Burlington County, Hydrologic Unit 02040201, at bridge on Old York Road, 1.4 mi (2.3 km) southwest of Bustleton, 2.8 mi (4.5 km) northeast of Deacons, 3.2 mi (5.1 km) east of Burlington, and 4.2 mi (6.8 km) upstream from mouth.

DRAINAGE AREA.--37.2 mi² (96.4 km²).

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 1978 TO SEPTEMBER 1979

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 04...	0930	185	6.7	15.0	8.8	.7	170	330	57	13
FEB 06...	1030	195	7.1	.0	12.3	.6	E2	E2	53	13
MAR 27...	1245	154	6.5	6.5	10.6	1.9	79	8	49	11
JUN 19...	1330	115	6.4	20.5	7.2	2.2	2200	230	38	8.8
JUL 18...	1330	141	6.7	23.0	7.0	2.0	790	920	47	11
AUG 10...	0845	159	6.8	22.5	6.6	1.2	2400	330	58	14

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 04...	6.0	6.9	5.0	17	0	14	.0	33	18	.2
FEB 06...	4.9	5.3	4.5	5	0	4	--	41	14	.2
MAR 27...	5.2	5.8	3.3	7	0	6	--	35	14	.1
JUN 19...	3.8	3.7	3.4	15	0	12	--	24	9.1	.2
JUL 18...	4.8	4.6	3.9	13	0	11	--	30	12	.2
AUG 10...	5.7	5.8	4.5	21	0	17	--	29	12	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	9.9	120	1.1	<1.0	--	2.3	3.4	.13	.11	4.7
FEB 06...	16	112	1.8	<1.0	--	1.5	3.3	.12	.09	1.1
MAR 27...	11	116	1.0	<.10	--	.90	1.9	.15	.14	3.7
JUN 19...	11	94	<1.0	.20	1.6	1.8	--	.76	.45	8.2
JUL 18...	14	127	<1.0	<.10	--	1.3	--	.53	.11	9.0
AUG 10...	16	125	1.0	.07	.23	.30	1.3	.42	.33	6.9

01464590 ASSISCUNK CREEK NEAR BURLINGTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	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)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)
OCT 04...	0930	667	1.9	2.2	30	1	0	0	<10	<10	<10	<10

DATE	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, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 04...	2	<10	1200	6700	<10	50	60	<.5	.00	8	<10	0

DATE	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	20	30	0	0	.0	7	.0	4.1	2.0	.0	.0	.0

DATE	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 04...	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01464598 DELAWARE RIVER AT BURLINGTON, NJ

LOCATION.--Lat 40°04'42", long 74°52'28", Burlington County, Hydrologic Unit 02040201, on left bank at the intake canal of the Public Service Electric and Gas Company, 0.3 mi (0.5 km) downstream from Burlington-Bristol Bridge, 1.4 mi (2.3 km) downstream from Assiscunk Creek, and at channel mile 117.40 (188.89 km).

DRAINAGE AREA.--7,160 mi² (18,540 km²).

PERIOD OF RECORD.--
TIDE ELEVATIONS: July 1964 to current year. March 1921 to July 1926, January 1931 to November 1939, August 1951 to June 1954, July 1957 to June 1964, in files of Philadelphia District Corps of Engineers.

REVISED RECORDS.--WDR NJ-76-1: 1973(m).

GAGE.--Water-stage recorder. Datum of gage is -12.90 ft (-3.932 m) National Geodetic Vertical Datum of 1929. Prior to May 20, 1971, water-stage recorder at site 0.8 mi (1.3 km) upstream at same datum. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--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, 8.58 ft (2.615 m) June 30, 1973; minimum, -6.60 ft (-2.012 m) Feb. 26, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 10.8 ft (3.29 m) Aug. 20, 1955, from high-water mark at site 1.4 mi (2.3 km) upstream; minimum, -9.1 ft (-2.77 m) Dec. 31, 1962, at present site.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 8.36 ft (2.548 m) Jan. 24; minimum recorded, -5.27 ft (-1.606 m) Jan. 19.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.98	--	--	8.36	--	6.53	7.55	--	6.40	--	6.45	--
high tide	Date	4,16	--	--	24	--	24	27	--	11	--	8	--
Minimum	Elevation	-3.34	--	--	-5.27	--	-3.84	-4.44	--	-3.43	--	-3.62	--
low tide	Date	11	--	--	19	--	15	7	--	16	--	15	--
Mean high tide		--	--	--	5.34	--	5.32	5.28	--	5.34	--	5.21	--
Mean water level		--	--	--	1.98	--	1.75	1.56	--	1.54	--	1.51	--
Mean low tide		--	--	--	-1.73	--	-1.94	-2.33	--	-2.51	--	-2.45	--

NOTE.--Missing or doubtful record on Oct. 16 to Jan. 5, Feb. 1 to Mar. 1, May 1 to June 1, July 1 to Aug. 1, Sept. 1-30.

01465835 SOUTH BRANCH RANCOCAS CREEK AT RETREAT, NJ

LOCATION.--Lat 39°55'23", long 74°43'05", Burlington County, Hydrologic Unit 02040202, at bridge on light-duty road in Retreat, 40 ft (12.2 m) upstream of Friendship Creek, 1.2 mi (1.9 km) southwest of Buddtown, and 1.8 mi (2.9 km) northeast of Beaverville.

DRAINAGE AREA.--44.4 mi² (115.0 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
JAN 31...	1205	65	4.0	2.0	12.9	1.0	2	12	8	1.8
MAR 28...	1030	66	4.0	6.5	12.0	1.0	<2	<2	10	2.4
JUN 14...	1300	54	4.6	19.0	6.4	.2	110	330	8	1.7
JUL 19...	1100	67	4.2	25.0	5.2	2.0	170	790	12	2.8
AUG 30...	1330	64	4.0	24.0	5.7	1.8	240	33	9	2.2

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 31...	.8	2.2	.8	0	0	0	--	11	4.2	.0
MAR 28...	1.0	2.6	.9	0	0	0	--	13	4.8	.1
JUN 14...	.8	2.7	.7	1	0	1	.2	8.5	4.7	.0
JUL 19...	1.1	3.0	1.1	0	0	0	--	13	5.3	.1
AUG 30...	.9	2.0	1.3	0	0	0	--	11	4.1	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 31...	3.7	38	<1.0	<.10	--	.60	.07	.07	7.8
MAR 28...	2.6	40	<1.0	<.10	--	.80	.05	.04	6.6
JUN 14...	4.4	42	<1.0	.30	.80	1.1	.26	.19	13
JUL 19...	5.8	54	<1.0	.30	1.3	1.6	.26	.11	12
AUG 30...	4.6	50	<1.0	.20	.90	1.1	.64	.20	19

01465835 SOUTH BRANCH RANCOCAS CREEK AT RETREAT, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
JUN 14...	1300	260	1	0	70	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 (UG/L)
JUN 14...	2300	4	20	<.5	8	0	40	1

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ

LOCATION.--Lat 39°56'22", long 74°45'50", Burlington County, Hydrologic Unit 02040202, at bridge on Lumberton-Vincentown Road at Vincentown, 2.9 mi (4.7 km) southeast of Lumberton, and 3.1 mi (5.0 km) upstream from Southwest Branch.

DRAINAGE AREA.--53.3 mi² (138.0 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1925, 1959-62, 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
JAN 31...	1005	168	63	4.9	2.0	13.0	1.2	33	14	15	3.9
MAR 28...	0845	126	63	4.9	7.0	10.8	1.3	8	9	16	4.5
JUN 14...	1000	126	56	5.4	18.0	8.0	.6	310	490	14	3.9
JUL 19...	1245	82	86	5.9	24.0	5.6	3.1	9200	480	26	7.2
AUG 30...	0915	490	52	4.7	22.5	6.3	2.1	>24000	2400	15	4.0
SEP 26...	0900	82	60	6.2	16.0	8.8	.8	<200	330	16	4.6

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 31...	1.2	2.6	1.1	1	0	1	--	14	5.1	.1
MAR 28...	1.2	3.0	1.1	1	0	1	--	15	5.5	.1
JUN 14...	1.1	3.1	.9	2	0	2	.2	10	5.5	.1
JUL 19...	2.0	3.6	2.3	7	0	6	--	18	6.6	.1
AUG 30...	1.2	2.1	1.9	1	0	1	--	10	4.7	.1
SEP 26...	1.2	3.1	1.4	6	0	5	.0	12	6.3	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 31...	4.0	47	<1.0	<.10	--	.51	--	.14	.11	7.8
MAR 28...	3.0	50	<1.0	<.10	--	.60	--	.09	.09	8.2
JUN 14...	5.2	52	<1.0	.30	1.0	1.3	--	.23	.23	16
JUL 19...	6.1	86	<1.0	.20	2.0	2.2	--	.83	.66	15
AUG 30...	4.6	56	<1.0	.20	1.2	1.4	--	.88	.45	18
SEP 26...	7.0	56	.24	.70	.40	1.1	1.3	.28	.17	14

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
JUN 14...	1000	240	1	0	80	1	10	7
SEP 26...	0900	270	1	10	50	0	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 (UG/L)
JUN 14...	2400	7	30	<.5	9	0	50	1
SEP 26...	1900	5	30	<.5	3	0	40	2

01465900 SOUTHWEST BRANCH RANCOCAS CREEK AT EAYRESTOWN, NJ

LOCATION.--Lat 39°56'49", long 74°47'58", Burlington County, Hydrologic Unit 02040202, at bridge on East Bella Bridge Road in Eayrestown, 0.3 mi (0.5 km) upstream from mouth, and 2.7 mi (4.3 km) west of Vincentown.

DRAINAGE AREA.--76.0 mi² (196.8 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1925, 1959-61, 1975 to 1979 (discontinued).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 04...	1230	142	6.7	16.5	7.6	1.5	700	340	41	13

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT 04...	2.0	7.0	3.4	22	0	18	20	9.9	.1	6.2

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	91	1.4	.30	1.2	1.5	2.9	1.4	1.3	8.9

01465970 NORTH BRANCH RANCOCAS CREEK AT BROWNS MILLS, NJ

LOCATION.--Lat 39°58'04", long 74°34'48", Burlington County, Hydrologic Unit 02040202, at bridge on Lakehurst Road at outflow of Mirror Lake in Browns Mills, 1.5 mi (2.4 km) north of Browns Mills Junction, and 2.0 mi (3.2 km) northwest of outflow of Country Lake.

DRAINAGE AREA.--19.5 mi² (50.5 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
FEB 15...	1445	55	4.5	.0	12.0	.9	<2	<2	10	2.3
MAR 28...	1330	46	4.5	10.0	10.8	.9	<2	7	9	2.1
JUN 18...	1300	41	4.8	21.5	7.4	1.7	920	350	8	1.9
JUL 19...	0915	45	5.6	25.0	6.3	1.6	<20	460	10	2.3
AUG 30...	1445	37	4.9	25.0	8.2	1.6	540	130	8	1.9

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
FEB 15...	1.1	2.7	.8	0	0	0	11	4.6	.0	4.4
MAR 28...	.9	2.5	.8	0	0	0	10	4.6	.0	2.3
JUN 18...	.8	2.4	.8	1	0	1	6.9	3.9	.0	3.6
JUL 19...	1.1	2.7	.8	4	0	3	8.3	4.6	.0	4.0
AUG 30...	.9	2.3	.8	2	0	2	7.3	4.0	.0	2.8

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 15...	38	.50	<.10	--	.70	1.2	.02	.01	3.8
MAR 28...	34	<1.0	<.10	--	.50	--	.03	.03	10
JUN 18...	32	<1.0	.20	1.4	1.6	--	1.6	.09	13
JUL 19...	41	<1.0	.30	1.3	1.6	--	.12	.06	11
AUG 30...	32	<1.0	<.10	--	1.1	--	.46	.08	12

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ
(Hydrologic bench-mark station)

LOCATION.--Lat 39°53'05", long 74°30'20", Burlington County, Hydrologic Unit 02040202, on right bank in Lebanon State Forest, 25 ft (7.6 m) upstream from Butterworth Road Bridge, 3.4 mi (5.5 km) upstream from confluence with Cooper Branch, and 7.0 mi (11.3 km) southeast of Browns Mills.

DRAINAGE AREA.--2.31 mi² (5.98 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1962, published as "McDonald Branch in Lebanon State Forest".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 117.73 ft (35.884 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good. Gage-height record is collected above concrete control and discharge record, which includes leakage around control, is at site 785 ft (239 m) downstream.

AVERAGE DISCHARGE.--26 years, 2.36 ft³/s (0.067 m³/s), 13.88 in/yr (353 mm/yr).

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum discharge, 35 ft³/s (0.991 m³/s) Aug. 25, 1968, gage height, 2.33 ft (0.710 m); minimum daily, 0.8 ft³/s (0.023 m³/s) July 6, 19, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7.0 ft³/s (0.198 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 21	1845	15	0.42	1.80	0.549
Jan. 25	0815	12	0.29	1.74	0.530
Mar. 7	0015	22	0.62	1.97	0.600
May 19	2000	12	0.34	1.74	0.530
June 6	1630	*29	0.82	2.08	0.634
Sept. 6	0715	8.6	0.24	1.62	0.494

Minimum daily discharge, 1.3 ft³/s (0.037 m³/s) many days in November.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.4	1.5	1.8	3.8	6.1	4.1	3.3	4.7	3.3	2.2	2.0
2	1.7	1.4	1.4	2.2	3.7	5.6	4.1	3.2	4.5	3.5	2.5	2.2
3	1.6	1.4	1.4	2.6	3.7	5.6	4.3	3.1	4.1	3.5	4.3	2.2
4	1.6	1.4	1.6	2.8	3.6	4.7	4.1	3.1	5.8	3.3	3.5	2.0
5	1.6	1.4	1.8	2.5	3.6	4.7	4.1	3.1	6.3	3.3	2.7	2.0
6	1.6	1.4	1.6	2.3	3.6	12	3.9	3.0	10	3.2	2.4	7.0
7	1.6	1.4	1.5	3.0	3.6	14	3.9	3.0	13	3.1	2.2	6.0
8	1.6	1.4	1.5	3.6	3.5	8.4	3.6	2.8	7.8	3.1	2.2	3.6
9	1.5	1.4	1.8	4.2	3.5	6.8	4.1	2.8	6.5	3.0	2.1	3.0
10	1.5	1.3	2.0	3.7	3.5	6.0	4.5	2.8	6.0	3.0	2.0	2.6
11	1.5	1.3	1.8	3.3	3.5	6.5	3.9	2.7	6.3	3.1	2.2	2.5
12	1.5	1.3	1.8	3.6	3.5	6.3	3.9	2.8	6.3	3.0	3.5	2.4
13	1.5	1.3	1.8	4.9	3.5	5.6	3.9	3.9	5.6	2.8	3.3	2.2
14	1.5	1.3	1.8	4.1	3.5	5.4	4.7	5.6	5.1	2.7	2.6	2.2
15	1.5	1.3	1.6	3.1	3.5	5.6	4.9	4.7	4.9	2.7	2.3	2.2
16	1.5	1.4	1.6	3.0	3.5	5.1	4.5	3.9	4.7	2.6	2.2	2.1
17	1.5	1.4	1.6	2.7	3.5	4.9	4.1	3.5	5.1	2.5	2.0	2.0
18	1.6	1.5	1.6	2.4	3.5	4.9	3.9	3.8	5.4	3.0	2.0	1.9
19	1.5	1.4	1.6	2.3	3.5	4.7	3.8	6.8	4.7	3.5	2.1	1.9
20	1.5	1.4	1.6	2.4	3.5	4.7	3.5	11	4.5	3.0	2.1	1.9
21	1.5	1.3	1.6	5.8	3.5	4.5	3.3	7.0	4.3	2.7	2.1	1.8
22	1.5	1.3	1.6	8.9	3.6	4.3	3.3	5.4	4.1	2.5	2.1	2.4
23	1.5	1.3	1.6	4.9	3.6	4.3	3.3	5.1	4.5	2.6	2.0	2.5
24	1.5	1.4	1.6	5.8	3.9	4.7	3.2	5.1	4.3	3.1	2.0	2.2
25	1.5	1.3	2.3	10	4.1	4.9	3.2	6.0	4.1	3.0	1.9	2.0
26	1.5	1.3	2.3	6.5	4.5	4.5	3.3	5.4	3.8	2.7	2.0	1.9
27	1.6	1.4	2.5	4.9	5.0	4.3	4.1	4.7	3.6	2.7	2.0	1.8
28	1.4	1.5	2.2	4.3	6.0	4.1	3.8	5.1	3.5	2.5	2.1	1.8
29	1.4	1.4	2.0	4.1	---	4.3	3.8	5.4	3.5	2.3	2.2	1.8
30	1.4	1.6	1.9	3.8	---	4.1	3.5	5.1	3.5	2.2	2.4	1.8
31	1.4	---	1.8	3.8	---	4.1	---	4.7	---	2.2	2.0	---
TOTAL	47.2	41.3	54.3	123.3	105.3	175.7	116.6	137.9	160.5	89.7	73.2	73.9
MEAN	1.52	1.38	1.75	3.98	3.76	5.67	3.89	4.45	5.35	2.89	2.36	2.46
MAX	1.7	1.6	2.5	10	6.0	14	4.9	11	13	3.5	4.3	7.0
MIN	1.4	1.3	1.4	1.8	3.5	4.1	3.2	2.7	3.5	2.2	1.9	1.8
CFSM	.66	.60	.76	1.72	1.63	2.46	1.68	1.93	2.32	1.25	1.02	1.07
IN.	.76	.66	.87	1.98	1.70	2.83	1.88	2.22	2.58	1.44	1.18	1.19

CAL YR 1978 TOTAL 1035.0 MEAN 2.84 MAX 16 MIN 1.3 CFSM 1.23 IN 16.66
WTR YR 1979 TOTAL 1198.9 MEAN 3.28 MAX 14 MIN 1.3 CFSM 1.42 IN 19.30

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to current year.
WATER TEMPERATURES: October 1960 to current year.

INSTRUMENTATION.--Temperature recorder since October 1960, water-quality monitor since October 1968.

EXTREMES FOR PERIOD OF DAILY RECORDS.--
SPECIFIC CONDUCTANCE: Maximum, 182 micromhos June 16, 1969; minimum, 19 micromhos Aug. 25, 1979.
WATER TEMEPRATURES: Maximum, 22.0°C Aug. 1, 1970; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 79 micromhos Dec. 26, 27; minimum, 19 micromhos Aug. 25.
WATER TEMPERATURES: Maximum, 21.5°C Sept. 6; minimum, 0.0°C on several days during January, February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT									
04...	1400	1.6	--	--	12.5	--	--	--	--
18...	1120	1.6	--	--	10.0	--	--	--	--
NOV									
08...	1300	1.4	28	4.2	10.5	2.7	.3	K1	K2
DEC									
01...	1020	1.5	--	--	9.5	--	--	--	--
JAN									
15...	1230	3.2	--	--	1.5	--	--	--	--
17...	1050	2.4	66	3.8	1.5	3.0	.1	K28	<0
MAR									
07...	1145	15	48	3.9	8.0	8.2	.8	K2	<1
APR									
19...	1615	3.6	--	--	11.0	--	--	--	--
MAY									
09...	1100	2.8	--	--	13.5	--	--	--	--
09...	1315	2.8	50	3.8	14.0	2.8	1.1	K180	K3
JUL									
11...	1015	3.0	30	4.0	15.0	2.1	1.0	K6	K2
11...	1345	3.0	--	--	--	--	--	--	--
SEP									
13...	1115	2.2	28	3.9	15.0	2.6	.6	--	K1

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	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 (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT									
04...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
NOV									
08...	K4	2	.5	.3	1.8	.3	0	1.8	3.0
DEC									
01...	--	--	--	--	--	--	--	--	--
JAN									
15...	--	--	--	--	--	--	--	--	--
17...	K2	5	1.0	.7	2.1	.3	0	9.1	3.1
MAR									
07...	K4	4	.8	.4	1.3	.2	0	6.8	2.3
APR									
19...	--	--	--	--	--	--	--	--	--
MAY									
09...	--	--	--	--	--	--	--	--	--
09...	--	2	.5	.3	1.5	.1	0	4.4	2.9
JUL									
11...	35	2	.4	.2	1.5	.1	0	4.2	3.4
11...	--	--	--	--	--	--	--	--	--
SEP									
13...	72	1	.3	.1	1.7	.2	0	2.9	3.6

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
04...	--	--	--	1	.00	--	--	--	--
18...	--	--	--	1	.00	--	--	--	--
NOV									
08...	.0	4.1	20	1	.00	.00	.00	--	7.6
DEC									
01...	--	--	--	1	.00	--	--	--	--
JAN									
15...	--	--	--	2	.02	--	--	--	--
17...	.0	3.4	27	1	.01	.01	.00	--	6.0
MAR									
07...	.0	1.5	31	1	.04	.01	.01	--	10
APR									
19...	--	--	--	1	.01	--	--	--	--
MAY									
09...	--	--	--	1	.01	--	--	--	--
09...	.0	1.6	20	1	.01	.01	.00	.00	8.8
JUL									
11...	.0	2.5	28	16	.13	.01	.00	--	15
11...	--	--	--	33	.27	--	--	--	--
SEP									
13...	.0	4.1	26	1	.01	.00	.00	--	11

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	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)	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)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SELE-NIUM, TOTAL (UG/L AS SE)
NOV 08...	1300	0	0	0	<10	3	100	--	0	<.5	0	0
MAY 09...	1315	4	0	0	10	4	190	2	10	<.5	0	0

DATE	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)	CYANIDE TOTAL (MG/L AS CN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 08...	30	.6	<.4	.7	<.4	.7	<.4	.10	.41	.00	.0	0
MAY 09...	40	--	--	--	--	--	--	--	--	.00	--	--

DATE	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)
NOV 08...	.00	.00	.0	.0	3	.00	4.2	.00	.0	.00	.7	.00
MAY 09...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 08...	.00	.0	.00	.00	.0	.00	.00	.0	.00	.0	.00	.0
MAY 09...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MALA-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 08...	.00	.00	.00	.00	.00	.00	.00	0	0	.00	.00	.00
MAY 09...	--	--	--	--	--	--	--	--	--	--	--	--

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	34	30	32	28	27	27	46	45	45	64	47	58
2	34	30	33	28	27	27	46	44	45	71	64	68
3	33	33	33	27	27	27	43	40	41	73	69	72
4	33	33	33	28	27	27	44	36	41	76	73	75
5	35	35	35	32	28	29	52	42	50	74	70	72
6	36	33	35	32	28	29	52	50	52	70	67	69
7	35	33	34	29	28	28	50	48	49	67	56	66
8	35	33	33	30	28	29	55	48	52	59	47	53
9	33	33	33	32	30	30	74	52	61	76	60	71
10	33	32	33	31	29	30	75	73	74	78	75	76
11	32	32	32	32	30	30	75	69	72	74	71	70
12	33	32	32	32	29	30	68	67	68	71	66	68
13	34	32	34	31	30	30	67	64	66	65	59	63
14	34	34	34	32	30	31	65	62	64	68	55	64
15	34	31	33	32	31	31	62	60	61	71	67	70
16	34	32	34	32	31	32	59	57	58	70	68	69
17	34	31	32	32	32	32	59	58	59	69	66	68
18	31	30	31	38	32	36	57	54	55	68	67	68
19	33	30	31	35	32	33	56	49	51	68	65	66
20	33	31	33	32	31	31	50	45	47	66	62	64
21	32	30	31	37	32	34	55	52	54	65	50	56
22	33	31	32	36	33	35	54	52	53	57	50	54
23	33	31	32	34	33	34	53	50	52	59	57	58
24	33	30	32	35	32	33	61	47	49	58	47	53
25	30	28	30	35	32	33	72	65	69	61	46	56
26	30	29	29	34	32	33	79	70	74	60	57	59
27	30	30	30	35	33	34	79	75	78	58	57	58
28	30	28	29	39	35	37	76	71	73	59	56	58
29	29	26	28	43	39	41	71	66	68	59	57	58
30	28	26	28	47	42	46	65	60	63	60	59	59
31	29	28	28	---	---	---	61	57	59	60	59	60
MONTH	36	26	32	47	27	32	79	36	58	78	46	64

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	60	59	60	45	44	45	53	53	53	54	53	54
2	60	59	60	45	44	44	54	52	53	54	52	53
3	60	59	60	45	44	45	52	52	52	52	51	51
4	59	59	59	46	39	43	52	52	52	51	51	51
5	60	59	60	39	36	37	53	50	52	51	51	51
6	60	59	60	43	38	40	53	52	53	51	50	50
7	59	57	58	49	43	47	53	53	53	50	48	50
8	58	57	57	47	45	46	53	53	53	49	48	48
9	58	57	58	47	45	46	55	51	53	52	47	50
10	58	57	58	46	45	46	55	55	55	51	50	50
11	57	56	57	50	46	48	55	54	54	50	49	50
12	56	54	55	51	50	51	54	53	54	49	48	49
13	54	53	53	51	49	50	53	53	53	57	48	50
14	54	54	54	49	46	48	55	53	54	57	54	55
15	54	54	54	51	50	51	56	54	56	53	52	52
16	54	54	54	51	51	51	56	55	56	52	49	51
17	53	52	53	51	50	51	55	54	55	50	48	49
18	52	51	51	51	50	51	55	54	55	48	47	48
19	51	49	50	51	51	51	55	55	55	51	47	49
20	50	48	49	51	51	51	55	54	55	52	50	51
21	52	47	49	51	51	51	54	54	54	51	49	50
22	53	51	52	52	52	52	54	54	54	49	48	48
23	52	49	51	52	52	52	54	54	54	48	47	47
24	58	49	54	55	52	53	54	54	54	47	46	47
25	58	52	56	55	54	55	54	52	53	48	47	48
26	51	45	46	56	55	55	54	51	52	48	47	47
27	44	43	43	55	54	55	56	54	55	46	46	46
28	45	43	44	54	54	54	56	54	55	47	45	46
29	---	---	---	54	52	53	54	54	54	47	45	46
30	---	---	---	52	52	52	54	54	54	46	45	46
31	---	---	---	53	52	52	---	---	---	46	44	45
MONTH	60	43	54	56	36	49	56	50	54	57	44	49

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	45	45	45	35	34	34	27	26	27	25	21	23
2	45	44	44	34	33	34	39	26	29	28	21	24
3	44	43	43	34	33	33	40	35	37	30	27	28
4	47	43	45	33	33	33	36	33	34	28	26	27
5	48	44	46	33	32	33	33	31	32	27	25	26
6	59	45	50	33	31	33	31	30	30	44	25	41
7	54	48	52	33	32	32	30	29	29	43	41	42
8	51	47	49	33	32	32	29	28	28	41	38	39
9	48	46	47	32	32	32	28	27	27	37	35	36
10	45	44	45	32	31	31	28	24	26	35	32	33
11	44	43	43	33	30	32	30	26	27	32	31	31
12	44	43	44	34	32	33	36	31	34	31	30	30
13	44	43	43	33	32	33	36	34	35	30	28	29
14	43	42	43	34	31	32	34	30	32	29	28	28
15	43	42	43	32	30	31	31	28	29	29	28	29
16	43	41	42	31	30	31	29	26	28	29	28	28
17	42	40	41	30	29	30	28	24	27	28	27	28
18	41	39	40	35	29	31	26	23	25	28	27	27
19	40	39	40	34	33	34	26	21	24	28	26	27
20	39	38	39	34	31	32	26	22	24	27	26	27
21	39	38	38	31	30	30	26	20	24	27	24	26
22	39	37	38	30	28	29	26	24	25	31	26	30
23	39	38	39	29	28	28	25	23	24	32	31	31
24	39	38	38	30	29	30	24	22	23	31	29	30
25	38	37	38	30	28	29	23	19	21	29	28	28
26	38	37	38	29	28	29	23	20	21	28	27	27
27	38	36	37	29	28	29	23	20	22	27	26	27
28	37	36	37	29	28	28	26	23	25	27	24	25
29	36	36	36	28	27	28	31	25	27	24	23	24
30	36	35	35	27	26	27	32	28	30	25	23	24
31	---	---	---	27	25	27	28	24	26	---	---	---
MONTH	59	35	42	35	25	31	40	19	27	44	21	29

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	15.5	15.5	16.0	16.0	16.0	18.0	17.5	17.5	17.0	16.0	16.5
2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	17.5	18.0	17.5	16.0	16.5
3	16.0	15.5	15.5	16.5	16.0	16.0	20.5	19.5	20.0	18.0	17.0	17.5
4	15.5	15.5	15.5	16.0	15.5	15.5	20.5	20.0	20.0	17.5	16.5	17.0
5	16.5	15.5	16.0	15.5	14.5	15.0	19.5	19.0	19.5	17.0	16.5	16.5
6	16.5	16.0	16.5	14.5	14.0	14.5	19.0	18.5	19.0	21.5	17.5	20.5
7	18.0	16.5	17.5	14.5	14.0	14.0	18.5	18.0	18.0	21.0	19.5	20.0
8	18.5	17.0	18.0	14.5	14.0	14.5	18.0	17.5	17.5	19.5	18.5	19.0
9	18.5	18.0	18.0	15.0	14.5	14.5	18.0	16.5	17.0	18.5	16.5	17.5
10	18.5	18.0	18.5	15.0	14.5	14.5	17.5	16.5	16.5	16.5	15.5	16.0
11	18.5	16.5	17.5	15.0	14.5	15.0	17.5	16.5	17.0	16.0	15.5	15.5
12	16.5	15.0	15.5	15.5	15.0	15.5	18.0	17.0	17.5	15.5	15.0	15.0
13	15.0	14.0	14.5	16.0	15.5	16.0	16.5	16.0	16.5	15.0	14.5	15.0
14	14.5	13.5	14.0	16.5	16.0	16.5	16.5	16.0	16.0	15.5	15.0	15.0
15	15.0	14.0	14.5	17.5	16.0	17.0	16.0	15.5	16.0	15.5	15.0	15.5
16	15.5	15.0	15.5	18.0	17.5	17.5	15.5	15.0	15.0	15.0	14.0	14.5
17	16.0	15.5	15.5	18.0	17.5	17.5	15.0	14.0	14.5	14.5	14.0	14.0
18	17.0	16.0	16.5	18.0	17.5	18.0	14.5	14.0	14.0	14.5	13.5	14.0
19	17.0	16.5	16.5	18.5	18.0	18.5	15.0	14.0	14.5	14.0	13.5	14.0
20	16.5	15.5	16.0	18.5	18.0	18.0	15.0	14.5	14.5	13.5	13.0	13.0
21	16.0	15.5	15.5	18.0	17.5	18.0	15.0	14.5	14.5	13.5	13.0	13.0
22	16.0	15.5	16.0	17.5	17.0	17.5	15.0	14.5	15.0	14.5	13.5	14.0
23	17.0	16.0	16.5	17.5	17.0	17.5	15.0	14.5	15.0	14.5	14.0	14.0
24	16.5	15.5	16.0	18.5	17.5	18.0	15.0	14.5	15.0	13.5	13.5	13.5
25	15.5	15.0	15.5	18.5	18.0	18.5	15.5	15.0	15.0	13.5	13.0	13.5
26	15.0	14.5	15.0	18.5	18.5	18.5	15.5	15.5	15.5	13.5	13.0	13.0
27	15.0	14.0	14.5	19.0	18.5	18.5	16.0	15.5	15.5	13.5	13.0	13.0
28	15.0	14.5	15.0	18.5	18.0	18.5	16.5	16.0	16.0	13.5	13.0	13.0
29	15.5	15.0	15.0	18.0	18.0	18.0	18.0	16.0	16.5	13.5	13.5	13.5
30	16.0	15.5	15.5	18.0	17.5	18.0	18.0	17.5	18.0	14.0	13.5	14.0
31	---	---	---	18.0	17.5	17.5	17.5	16.5	17.0	---	---	---
MONTH	18.5	13.5	16.0	19.0	14.0	16.5	20.5	14.0	16.5	21.5	13.0	15.0

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ

LOCATION.--Lat 39°58'10", long 74°41'05", Burlington County, Hydrologic Unit 02040202, on right bank at downstream side of highway bridge at Pemberton, 12 mi (19 km) upstream from confluence with South Branch.

DRAINAGE AREA.--111 mi² (287 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1302: 1922-23. WSP 1382: 1933.

GAGE.--Water-stage recorder above concrete dams. Datum of gage is 31.19 ft (9.507 m) National Geodetic Vertical Datum of 1929. Prior to June 9, 1923, nonrecording gage and June 9, 1923 to Aug. 9, 1951, water-stage recorder at site 600 ft (183 m) downstream at datum 6.54 ft (1.993 m) lower.

REMARKS.--Water-discharge records good. Flow regulated occasionally by operation of gate in dam and by ponds above station.

AVERAGE DISCHARGE.--58 years, 173 ft³/s (4.899 m³/s), 21.17 in/yr (538 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,730 ft³/s (49.0 m³/s) Aug. 31, 1939, gage height, 4.23 ft (1.289 m), from high-water mark at former site, present datum; minimum daily, 9.0 ft³/s (0.25 m³/s) Sept. 29, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 22	1600	972	27.5	2.96	0.902	Mar. 8	0400	957	27.1	2.94	0.896
Jan. 26	0700	908	25.7	2.87	0.875	May 20	1645	649	18.4	2.50	0.762
Feb. 26	2315	*1660	47.0	3.79	1.155	May 25	1530	656	18.6	2.51	0.765

Minimum discharge, 86 ft³/s (2.43 m³/s) Oct. 12, Nov. 12, 13, 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	101	180	218	384	860	230	224	341	164	110	230
2	105	105	164	267	313	538	230	202	313	170	105	185
3	114	110	155	481	313	496	230	191	280	164	159	175
4	118	98	191	481	287	461	327	218	348	150	411	230
5	118	94	224	377	248	440	300	202	454	150	503	320
6	114	90	242	320	230	580	230	159	447	150	287	517
7	105	90	236	307	218	860	202	159	447	145	185	545
8	101	105	213	440	224	929	196	155	467	140	155	489
9	98	110	293	566	218	789	213	140	433	131	136	390
10	90	94	454	510	213	635	274	131	370	114	122	307
11	90	90	390	418	207	580	287	140	334	118	122	248
12	86	86	348	320	196	545	267	150	363	122	348	202
13	98	86	280	287	202	489	261	175	341	122	300	196
14	105	86	213	363	196	397	334	267	280	155	224	287
15	101	90	175	327	202	411	370	384	267	136	207	164
16	105	94	155	307	196	390	348	397	236	127	180	150
17	98	105	170	287	196	363	327	334	254	122	155	131
18	90	140	170	261	224	341	348	280	313	122	140	122
19	90	136	175	242	230	320	313	355	287	136	140	118
20	90	122	164	230	256	307	274	594	242	136	136	118
21	90	114	175	614	290	287	236	545	213	127	131	118
22	94	114	191	943	340	274	230	397	196	118	127	150
23	94	114	185	901	400	327	248	384	224	118	122	191
24	86	122	180	747	524	274	224	454	254	185	118	196
25	101	127	348	839	839	355	207	607	248	185	114	180
26	101	122	454	901	1480	300	224	552	218	155	118	164
27	101	118	363	817	1590	307	280	411	196	145	122	155
28	110	131	300	670	1250	300	300	348	175	131	218	140
29	110	155	274	538	---	267	300	320	170	122	341	160
30	101	185	230	467	---	248	261	341	164	118	348	170
31	105	---	213	418	---	236	---	341	---	114	287	---
TOTAL	3103	3334	7505	14864	11466	13906	8071	9557	8875	4292	6171	6748
MEAN	100	111	242	479	410	449	269	308	296	138	199	225
MAX	118	185	454	943	1590	929	370	607	467	185	503	545
MIN	86	86	155	218	196	236	196	131	164	114	105	118
CFSM	.90	1.00	2.18	4.32	3.69	4.05	2.42	2.78	2.67	1.24	1.79	2.03
IN.	1.04	1.12	2.52	4.98	3.84	4.66	2.70	3.20	2.97	1.44	2.07	2.26

CAL YR 1978 TOTAL 90138 MEAN 247 MAX 1060 MIN 86 CFSM 2.23 IN 30.21
WTR YR 1979 TOTAL 97892 MEAN 268 MAX 1590 MIN 86 CFSM 2.41 IN 32.81

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1958, 1962-69, 1975 to current year.

COOPERATION.--Analyses of fecal coliform 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
05...	1300	118	41	4.7	16.0	8.8	.8	79	1600	8	1.7
FEB											
15...	1030	196	55	4.3	.0	12.1	1.2	<2	2	8	1.9
APR											
03...	1055	236	48	4.2	11.0	9.1	1.2	330	17	7	1.9
JUN											
18...	1000	307	45	4.3	23.0	7.2	2.2	540	70	7	1.7
JUL											
26...	1200	155	41	4.6	23.5	7.8	1.2	170	330	8	1.9
AUG											
30...	1000	363	43	3.9	23.5	6.4	3.8	920	2400	7	1.6

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT										
05...	.9	2.7	.7	1	0	1	.0	7.0	4.6	.0
FEB										
15...	.8	2.6	.7	0	0	0	--	10	4.7	.0
APR										
03...	.6	2.7	.7	0	0	0	--	8.8	4.6	.0
JUN										
18...	.7	2.3	.7	0	0	0	--	6.9	4.0	.0
JUL										
26...	.8	2.7	.8	1	0	1	--	7.3	4.5	.0
AUG										
30...	.7	2.3	.8	0	0	0	--	7.1	4.4	.0

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
05...	4.7	34	<1.0	.30	1.2	1.5	--	.04	.04	8.3
FEB										
15...	4.4	36	<1.0	<.10	--	.80	--	.03	.03	5.3
APR										
03...	2.5	30	1.4	<.10	--	.20	1.6	.04	.04	11
JUN										
18...	3.7	32	<1.0	.20	1.4	1.6	--	.18	.12	16
JUL										
26...	4.9	40	<1.0	.20	1.4	1.6	--	.18	.13	--
AUG										
30...	4.3	36	<1.0	<.10	--	1.0	--	.20	.09	14

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	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)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)
OCT 05...	1300	560	3.0	4.1	140	1	0	0	<10	10	50	20

DATE	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, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 05...	7	450	2200	21000	870	30	200	<.5	.00	8	200	0

DATE	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	30	220	0	23	.0	39	14	4.6	3.8	.0	1.4	.0

DATE	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01467006 NORTH BRANCH RANCOCAS CREEK AT PINE STREET AT MOUNT HOLLY, NJ

LOCATION.--Lat 39°59'22", long 74°47'06", Burlington County, Hydrologic Unit 02040202, at bridge on Pine Street in Mount Holly, 0.1 mi (0.2 km) north of Saint Andrews Cemetery in Mount Holly, and 0.3 mi (0.5 km) downstream from Mill Dam.

DRAINAGE AREA.--134 mi² (347 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to 1979 (discontinued).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 05...	0900	73	6.4	15.5	9.2	1.2	350	540	18	4.6

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	1.5	4.8	1.3	5	0	4	.0	12	7.4	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	5.9	55	<1.0	.30	1.2	1.5	.28	.28	7.3

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	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)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)
OCT 05...	0900	4900	24	24	60	1	0	0	<10	<10	10	<10

DATE	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, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 05...	6	<10	2800	8900	40	30	30	<.5	.00	10	<10	0

DATE	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	100	110	0	45	.0	44	29	18	11	.0	1.5	.0

DATE	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01467060 DELAWARE RIVER AT PALMYRA, NJ

LOCATION.--Lat 40°01'05", long 75°02'16", Philadelphia County, PA, Hydrologic Unit 02040202, on right bank opposite Palmyra, 0.5 mi (0.8 km) upstream from Tacony-Palmyra Bridge, 3.5 mi (5.6 km) downstream from Rancocas Creek, and at channel mile 107.45 (172.89 km).

DRAINAGE AREA.--7,850 mi² (20,330 km²).

PERIOD OF RECORD.--December 1962 to current year. Tidal volumes published from December 1962 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is -10.00 ft (-3.048 m) National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--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, 8.31 ft (2.533 m) Feb. 26, 1979; minimum, -8.6 ft (-2.6 m) Dec. 31, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since 1899, 8.9 ft (2.7 m) Aug. 24, 1933, from profile furnished by Corps of Engineers, U.S. Army.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 8.31 ft (2.533 m) Feb. 26; minimum recorded, -3.66 ft (-1.116 m) Jan. 27.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.70	5.65	5.69	7.54	8.31	6.16	7.18	6.34	6.00	5.82	5.94	7.11
high tide	Date	4	16	31	24	26	24	27	26	11	12	8	6
Minimum	Elevation	-3.10	-3.10	-3.52	-3.66	-3.51	-3.32	-3.50	-3.63	-3.45	-2.84	-2.65	-3.00
low tide	Date	11	25	26	27	16	15,16	7	17	25	5	15	8,16
Mean high tide		4.46	4.43	3.94	--	--	4.77	4.81	4.76	4.67	--	4.73	4.83
Mean water level		1.33	1.35	0.64	--	--	1.52	1.42	1.39	1.29	--	1.44	1.51
Mean low tide		-2.06	-2.13	-2.55	--	--	-1.95	-2.16	-2.32	-2.45	--	-2.20	-2.16

NOTE.--Missing or doubtful record on Dec. 4-8, Jan. 3 to Feb. 15, May 1 to Aug. 16.

01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ

LOCATION.--Lat 39°57'07", long 74°58'10", Burlington County, Hydrologic Unit 02040202, at bridge on Kings Highway, 200 ft (61 m) downstream from outlet of Strawbridge Lake, 0.6 mi (1.0 km) northwest of Moorestown Mall, 0.8 mi (1.3 km) southeast of Lenola, and 1.8 mi (2.9 km) southwest of Moorestown.

DRAINAGE AREA.--12.8 mi² (33.2 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 04...	0915	4.4	288	6.5	17.5	6.9	4.0	220	70	78	21
FEB 14...	1300	15	399	6.4	1.0	11.8	1.7	<2	<2	93	25
MAR 30...	0930	19	274	6.3	12.0	8.8	4.0	2	2	78	21
JUN 19...	1030	8.7	256	6.7	22.5	7.2	4.6	210	22	77	21
JUL 30...	1415	4.4	275	7.1	28.5	9.0	8.9	170	80	84	23
AUG 28...	0900	4.4	268	6.6	25.0	7.2	4.2	50	94	79	22

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	6.2	15	5.6	17	0	14	--	60	29	.2
FEB 14...	7.5	29	5.2	20	0	16	--	78	52	.2
MAR 30...	6.2	16	4.3	17	0	14	--	63	29	.1
JUN 19...	6.0	13	5.0	18	0	15	.0	62	25	.2
JUL 30...	6.4	13	5.9	17	0	14	--	59	26	.3
AUG 28...	5.9	14	5.4	21	0	17	--	56	23	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	9.7	179	.90	.82	.38	1.2	2.1	.46	.31	7.8
FEB 14...	13	253	1.2	1.2	.60	1.8	3.0	1.1	.22	2.8
MAR 30...	11	171	<1.0	.50	1.3	1.8	--	.31	.25	3.5
JUN 19...	12	170	1.0	.60	2.8	3.4	4.4	.31	.13	7.9
JUL 30...	12	178	1.0	.60	1.5	2.1	3.1	.14	.10	11
AUG 28...	11	176	<1.0	.90	.40	1.3	--	.28	.06	6.0

01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
JUN 19...	1030	20	2	0	50	15	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 (UG/L)
JUN 19...	4200	12	200	<.5	33	0	30	0

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ

LOCATION.--Lat 39°56'30", long 75°00'05", Camden County, Hydrologic Unit 02040202, on left bank on downstream wingwall of bridge on Mill Road in Cherry Hill, 1.1 mi (1.8 km) south of Maple Shade and 3.8 mi (6.1 km) upstream from confluence with the North Branch.

DRAINAGE AREA.--9.16 mi² (23.72 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1976, October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8.12 ft (2.475 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor.

AVERAGE DISCHARGE.--11 years, (1968-76, 1978-79) 19.2 ft³/s (0.544 m³/s), 28.45 in/yr (723 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 868 ft³/s (24.6 m³/s) Aug. 28, 1978, gage height, 10.19 ft (3.106 m); maximum gage height, 11.34 ft (3.456 m) Aug. 28, 1971; minimum, 2.6 ft³/s (0.073 m³/s) Oct. 6, 9, 10, 11, 1970, gage height, 1.71 ft (0.521 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	1030	326	9.23	6.48	1.975	Feb. 25	0300	534	15.1	8.17	2.490
Jan. 21	0630	*629	17.8	8.80	2.682	May 25	0415	410	11.6	7.21	2.198
Jan. 24	2000	421	11.9	7.30	2.225	July 14	1500	400	11.3	6.88	2.097

Minimum daily discharge, 4.5 ft³/s (0.127 m³/s) Nov. 13, 14, 21, 22, 23, 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	7.0	12	21	17	23	13	11	14	8.5	9.0	9.2
2	13	7.0	11	112	17	22	18	10	12	8.0	12	8.9
3	12	7.5	9.9	59	15	20	17	10	24	8.0	20	9.0
4	10	7.5	44	17	16	19	17	10	45	8.5	28	9.6
5	10	7.5	56	15	15	19	19	9.9	28	8.8	12	10
6	12	7.5	16	15	15	114	14	9.2	19	7.6	9.0	90
7	10	7.0	12	45	14	48	13	9.2	14	7.3	8.5	14
8	9.5	7.0	14	171	14	23	12	8.6	12	6.7	9.0	10
9	9.5	7.0	202	28	14	19	28	8.4	10	7.0	12	9.6
10	9.5	5.5	52	18	16	17	35	8.6	35	7.3	25	9.5
11	9.5	5.5	21	15	14	50	16	9.0	95	7.3	50	9.5
12	9.0	5.0	17	14	14	21	15	12	30	7.3	80	9.5
13	9.0	4.5	16	29	14	18	15	17	15	7.9	30	9.1
14	8.5	4.5	14	35	14	21	52	15	13	75	13	16
15	8.5	5.0	14	18	14	17	21	12	12	35	11	15
16	8.0	6.0	14	15	13	15	12	11	11	17	10	9.1
17	14	8.0	17	14	13	15	12	11	13	60	9.5	9.2
18	8.0	13	16	14	13	14	11	28	12	70	11	9.1
19	8.0	6.0	15	12	13	14	11	52	11	30	12	9.2
20	8.0	5.0	16	26	13	14	10	17	9.5	12	9.0	8.9
21	7.0	4.5	35	461	18	13	9.5	12	9.5	11	10	12
22	7.0	4.5	17	41	42	13	8.0	8.4	10	10	9.7	35
23	7.0	4.5	15	22	33	13	9.0	29	17	12	9.4	23
24	7.0	5.0	32	124	212	64	11	74	14	14	14	11
25	7.0	4.5	113	99	323	30	11	188	11	12	9.9	10
26	7.0	4.5	20	26	271	19	24	22	10	11	11	9.7
27	8.0	17	16	22	38	15	36	17	9.5	10	9.6	10
28	7.0	27	14	22	26	14	14	15	9.0	9.5	11	11
29	6.5	17	12	21	---	15	13	18	9.5	9.5	33	17
30	6.5	39	12	18	---	14	11	15	8.5	9.5	18	56
31	6.5	---	14	17	---	14	---	15	---	9.5	10	---
TOTAL	275.5	260.5	888.9	1566	1251	747	507.5	692.3	542.5	517.2	525.6	479.1
MEAN	8.89	8.68	28.7	50.5	44.7	24.1	16.9	22.3	18.1	16.7	17.0	16.0
MAX	14	39	202	461	323	114	52	188	95	75	80	90
MIN	6.5	4.5	9.9	12	13	13	8.0	8.4	8.5	6.7	8.5	8.9
CFSM	.97	.95	3.13	5.51	4.88	2.63	1.85	2.43	1.98	1.82	1.86	1.75
IN.	1.12	1.06	3.61	6.36	5.08	3.03	2.06	2.81	2.20	2.10	2.13	1.95

CAL YR 1978 TOTAL 8658.2 MEAN 23.7 MAX 422 MIN 4.5 CFSM 2.59 IN 35.16
WTR YR 1979 TOTAL 8253.1 MEAN 22.6 MAX 461 MIN 4.5 CFSM 2.47 IN 33.51

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 04...	1040	E10	358	7.0	16.5	5.0	3.8	3500	1300	82	22
FEB 20...	1000	17	388	6.9	.0	13.2	15	<20	<20	81	21
MAR 27...	1300	16	344	6.7	8.5	10.6	3.0	940	80	87	23
JUN 07...	1215	15	287	6.9	19.0	7.3	3.4	3300	490	85	23
JUL 05...	1200	9.3	293	7.0	17.5	6.7	13	160000	>24000	78	21
AUG 20...	1130	7.9	328	6.9	21.0	4.7	10	160000	>24000	78	21

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	6.6	23	9.0	83	0	68	--	53	23	.3
FEB 20...	6.9	24	7.2	44	0	36	--	56	30	.1
MAR 27...	7.1	22	5.6	28	0	23	--	55	39	.2
JUN 07...	6.7	15	6.3	41	0	34	.0	52	24	.2
JUL 05...	6.2	18	6.8	44	0	36	--	50	24	.2
AUG 20...	6.2	21	8.8	61	0	50	--	44	26	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	14	194	2.2	.05	1.4	1.5	3.7	2.1	2.1	5.9
FEB 20...	13	191	3.2	2.8	.80	3.6	6.8	2.5	1.9	6.0
MAR 27...	13	213	2.3	1.6	1.0	2.6	4.9	1.1	1.1	6.7
JUN 07...	14	188	2.7	1.4	1.8	3.2	5.9	1.5	.70	8.6
JUL 05...	11	206	2.5	.20	5.8	6.0	8.5	3.0	1.5	13
AUG 20...	13	207	3.0	3.6	.20	3.8	6.8	2.5	2.2	9.5

DATE	TIME	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 07...	1215	30	4	0	60	0	20	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 (UG/L)
JUN 07...	2700	10	150	<.5	13	0	40	3

01467120 COOPER RIVER AT NORCROSS ROAD AT LINDENWOLD, NJ

LOCATION.--Lat 39°49'43", long 74°58'55", Camden County, Hydrologic Unit 02040202, at bridge on Norcross Road in Lindenwold, 50 ft (15 m) downstream from outflow of Linden Lake, 1.1 mi (1.8 km) southwest of Gibbstown, and 1.7 mi (2.8 km) south of Glendale.

DRAINAGE AREA.--1.13 mi² (2.93 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB 14...	1015	--	87	6.2	.5	12.6	.6	5	<2	22	6.7
MAR 26...	1000	2.4	78	6.4	10.5	9.1	--	240	240	19	5.8
JUN 13...	0900	2.0	55	6.4	18.0	7.6	2.0	920	350	17	5.2
JUL 23...	1000	.89	62	6.5	25.0	7.8	2.3	<20	130	19	6.1
AUG 14...	1045	--	66	6.4	22.0	8.8	1.7	50	20	19	5.9
SEP 26...	1015	--	66	6.0	18.0	8.4	2.0	20	33	19	5.8

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 14...	1.3	6.1	1.5	10	0	8	--	14	10	.0
MAR 26...	1.2	4.8	1.5	10	0	8	--	11	8.2	.0
JUN 13...	.9	3.6	1.0	11	0	9	.0	7.7	5.3	.1
JUL 23...	1.0	3.3	1.1	11	0	9	--	8.4	5.6	.1
AUG 14...	1.1	3.4	1.1	6	0	5	--	9.6	6.1	.1
SEP 26...	1.0	3.8	1.7	11	0	9	.0	7.1	7.2	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 14...	6.2	63	.20	.20	.40	.60	.80	.02	.02	3.5
MAR 26...	3.4	60	<1.0	.20	1.1	1.3	--	.11	.11	7.0
JUN 13...	2.4	55	<1.0	<.10	--	1.1	--	.36	.14	7.2
JUL 23...	1.7	62	--	<.10	--	1.1	--	.16	.15	11
AUG 14...	4.1	62	<1.0	<.10	--	.60	--	.06	.06	12
SEP 26...	2.3	48	<1.0	.40	--	--	--	.07	.07	5.3

01467120 COOPER RIVER AT NORCROSS ROAD AT LINDENWOLD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
JUN 13...	0900	120	4	0	40	0	10	5
SEP 26...	1015	40	0	10	30	0	20	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 (UG/L)
JUN 13...	1800	8	30	<.5	18	0	50	0
SEP 26...	1400	2	30	<.5	1	0	0	3

01467130 COOPER RIVER AT KIRKWOOD, NJ

LOCATION.--Lat 39°50'11", long 75°00'06", Camden County, Hydrologic Unit 02040202, at outlet of Kirkwood Lake in Kirkwood, 100 ft (30 m) east of tracks of Pennsylvania-Reading Seashore Lines, and 1.0 mi (1.6 km) north of Laurel Springs.

DRAINAGE AREA.--5.14 mi² (13.31 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1967, 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 05...	0930	390	7.2	17.5	8.4	9.3	20	130	52	15
FEB 13...	1300	349	6.9	2.0	11.4	7.6	<2	<2	50	15
MAR 22...	0945	285	7.1	12.0	10.5	--	<2	11	44	13
JUN 11...	1315	272	7.2	23.0	7.8	8.1	920	920	78	27
JUL 23...	1200	258	7.1	26.5	7.7	6.8	33	330	46	14
AUG 14...	1245	172	6.8	21.5	6.5	4.8	1600	170	37	11
SEP 26...	1215	276	6.8	19.5	7.3	5.1	20	<2	46	14

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	3.5	32	9.6	78	0	64	.0	23	54	.1
FEB 13...	3.0	26	7.0	68	0	56	--	24	49	.1
MAR 22...	2.8	24	5.7	56	0	46	--	22	35	.1
JUN 11...	2.5	19	5.5	63	0	52	--	18	36	.1
JUL 23...	2.6	20	5.7	68	0	56	--	15	29	.1
AUG 14...	2.2	12	3.5	44	0	36	--	16	16	.1
SEP 26...	2.6	20	6.0	62	0	51	.0	17	32	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	2.7	176	<1.0	13	.00	13	--	1.2	.54	8.3
FEB 13...	8.3	165	.20	9.0	1.5	10	11	1.2	.60	11
MAR 22...	6.0	140	<1.0	6.6	1.8	8.4	--	1.4	.86	12
JUN 11...	5.2	148	<1.0	6.7	1.9	8.6	--	2.9	.14	9.6
JUL 23...	6.7	138	.15	6.8	1.8	8.6	8.7	.90	.81	11
AUG 14...	5.5	54	<1.0	3.3	.50	3.8	--	1.3	.73	14
SEP 26...	4.8	163	<1.0	6.4	--	--	--	1.5	.65	6.1

01467130 COOPER RIVER AT KIRKWOOD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G 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)
OCT 05...	0930	350	3.2	4.8	130	4	0	0	--	--
SEP 26...	1215	--	--	--	20	6	--	20	150	0

DATE	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)
OCT 05...	<10	<10	<10	<10	7	<10	1900	2800	--	190
SEP 26...	--	10	--	--	6	--	1700	--	10	--

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)
OCT 05...	70	20	<.5	.00	8	<10	0	20	60	0
SEP 26...	50	--	<.5	--	1	--	0	30	--	2

DATE	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 05...	24	.0	18	7.7	.0	3.7	.0	.0	.0	.0
SEP 26...	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 05...	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
SEP 26...	--	--	--	--	--	--	--	--	--	--

01467140 COOPER RIVER AT LAWNSIDE, NJ

LOCATION.--Lat 39°52'14", long 75°00'59", Camden County, Hydrologic Unit 02040202, at bridge on Woodcrest Road in Lawnside, 0.2 mi (0.3 km) upstream from the New Jersey Turnpike, and 1.7 mi (2.7 km) upstream from Tindale Run.

DRAINAGE AREA.--12.8 mi² (33.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 05...	1130	10	361	7.0	18.0	3.7	16	17000	500	58	16
FEB 13...	1000	30	328	6.9	.5	10.9	11	5	2	52	15
MAR 22...	1230	27	295	6.9	14.0	7.5	--	350	<20	56	16
JUN 13...	1200	29	220	7.0	18.5	6.1	9.6	1300	330	49	14
JUL 19...	1115	41	218	6.8	24.0	5.2	7.2	9200	240	44	13
AUG 16...	1300	19	274	7.0	21.5	5.9	7.8	700	790	52	16

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 05...	4.4	26	9.0	90	0	75	--	29	36	.2
FEB 13...	3.6	23	6.6	60	0	49	--	31	38	.1
MAR 22...	3.8	23	7.0	81	0	66	--	31	29	.2
JUN 13...	3.3	15	5.2	61	0	50	.0	24	19	.2
JUL 19...	2.9	14	5.6	52	0	43	--	23	19	.2
AUG 16...	3.0	14	7.1	68	0	56	--	27	21	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	11	176	1.0	12	.00	12	13	5.0	4.6	14
FEB 13...	12	162	.60	7.2	1.1	8.3	8.9	3.5	2.9	14
MAR 22...	11	151	<1.0	6.6	2.7	9.3	--	3.5	3.4	16
JUN 13...	9.9	123	<1.0	4.5	1.4	5.9	--	2.7	2.4	21
JUL 19...	8.4	119	.64	4.5	2.4	6.9	7.5	2.0	1.6	8.6
AUG 16...	11	146	1.9	<.10	--	7.0	8.9	2.8	2.2	13

01467140 COOPER RIVER AT LAWNSIDE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	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)
OCT 05...	1130	700	1.7	1.7	--	--	0	--	--	--
JUN 13...	1200	--	--	--	40	7	--	0	90	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
OCT 05...	<10	--	10	<10	--	<10	--	9400	--	20
JUN 13...	--	20	--	--	20	--	4300	--	15	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)
OCT 05...	--	20	--	.00	--	<10	--	--	70	--
JUN 13...	70	--	<.5	--	13	--	0	40	--	7

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	0	.0	9	6.0	2.6	.0	.0	.8	.0	.0
JUN 13...	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
JUN 13...	--	--	--	--	--	--	--	--	--	--

01467150 COOPER RIVER AT HADDONFIELD, NJ

LOCATION.--Lat 39°54'11", long 75°01'19", Camden County, Hydrologic Unit 02040202, on right bank of Wallworth Lake in Pennypacker Park, 200 ft (61 m) upstream from bridge on State Highway 41 (Kings Highway) in Haddonfield, 0.6 mi (1.0 km) upstream from North Branch Cooper River, and 7.7 mi (12.4 km) upstream from mouth.

DRAINAGE AREA.--17.4 mi² (45.1 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1967(M).

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 9.29 ft (2.832 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Occasional regulation at low flow from Kirkwood Lake, other small lakes and wastewater treatment plants.

AVERAGE DISCHARGE.--16 years, 35.8 ft³/s (1.014 m³/s), 27.94 in/yr (710 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft³/s (93.5 m³/s) Aug. 28, 1971, gage height, 5.46 ft (1.664 m); minimum, 0.8 ft³/s (0.023 m³/s) Nov. 13, 1972, gage height, 1.07 ft (0.326 m) regulation from unknown source; minimum daily, 1.2 ft³/s (0.034 m³/s) June 27, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 21	0815	*1080	30.6	3.50	1.067	Feb. 25	0300	811	23.0	3.17	0.966
Jan. 24	2330	554	15.7	2.80	0.853	May 25	0215	573	16.2	2.83	0.863

Minimum discharge, 17 ft³/s (0.481 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	24	27	38	36	56	33	31	40	25	23	23
2	26	26	24	152	31	50	43	30	33	24	23	23
3	22	26	23	107	30	45	38	30	40	23	59	28
4	20	27	72	40	30	43	38	31	94	27	61	31
5	20	27	90	31	30	40	40	30	45	27	27	27
6	25	27	36	31	27	174	33	28	34	22	24	226
7	20	26	27	75	28	114	30	30	33	21	22	48
8	20	26	28	249	28	52	30	28	31	20	21	28
9	19	27	199	67	28	41	64	28	30	20	28	26
10	20	21	90	41	25	40	61	28	28	23	45	25
11	19	21	36	34	24	107	38	28	212	25	78	25
12	20	22	31	31	23	48	34	34	87	25	156	26
13	21	20	28	59	23	38	33	48	38	26	72	25
14	21	20	26	64	23	40	97	40	33	148	31	40
15	20	21	26	41	22	36	52	33	30	61	25	40
16	20	24	26	34	23	34	40	28	28	40	24	25
17	38	25	31	31	23	34	34	27	36	104	23	24
18	24	59	26	31	22	33	33	67	33	144	25	22
19	24	25	25	28	22	33	31	128	28	75	30	22
20	24	22	26	48	24	33	30	67	25	33	25	21
21	22	21	59	711	25	33	30	38	26	28	26	26
22	21	21	33	107	64	33	28	33	28	26	28	72
23	21	21	33	50	56	33	26	81	48	27	27	56
24	22	24	54	174	303	118	30	144	48	34	31	30
25	20	21	152	199	541	87	50	329	28	30	26	26
26	23	20	45	59	450	45	56	56	27	27	27	26
27	30	28	34	48	104	38	100	38	26	25	25	25
28	24	48	28	48	67	34	43	34	26	24	31	26
29	22	33	27	45	---	34	38	38	26	24	78	48
30	22	69	25	38	---	34	33	36	24	24	56	72
31	23	---	28	36	---	34	---	41	---	24	27	---
TOTAL	698	822	1415	2747	2132	1614	1266	1662	1265	1206	1204	1162
MEAN	22.5	27.4	45.6	88.6	76.1	52.1	42.2	53.6	42.2	38.9	38.8	38.7
MAX	38	69	199	711	541	174	100	329	212	148	156	226
MIN	19	20	23	28	22	33	26	27	24	20	21	21
CFSM	1.29	1.58	2.62	5.09	4.37	2.99	2.43	3.08	2.43	2.24	2.23	2.22
IN.	1.49	1.76	3.02	5.87	4.56	3.45	2.71	3.55	2.70	2.58	2.57	2.48

CAL YR 1978 TOTAL 15864 MEAN 43.5 MAX 743 MIN 16 CFSM 2.50 IN 33.91
WTR YR 1979 TOTAL 17193 MEAN 47.1 MAX 711 MIN 19 CFSM 2.71 IN 36.76

01467150 COOPER RIVER AT HADDONFIELD, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: March to September 1969.
SUSPENDED-SEDIMENT DISCHARGE: March 1968 to May 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 12...	0920	19	385	7.2	15.5	7.6	8.8	5400	230	61

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (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...	17	4.4	30	9.2	85	0	70	33	43	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS P04)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS P04)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 12...	13	186	1.3	7.7	2.8	10	12	2.9	2.8	10

01467181 NORTH BRANCH COOPER RIVER AT ERLTON, NJ

LOCATION.--Lat 39°54'31", long 75°01'32", Camden County, Hydrologic Unit 02040202, at bridge on Cooper River Drive in Erlton, 600 ft (183 m) upstream from mouth, 2.3 mi (3.7 km) south of Cherry Hill Mall, and 1.2 mi (1.9 km) southeast of Garden State Park.

DRAINAGE AREA.--11.1 mi² (28.7 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to 1979 (discontinued).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 04...	1210	358	7.3	16.0	6.4	7.8	1700	540	76	21

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	5.7	24	9.4	98	0	80	.0	45	27	.6

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	20	193	1.3	.07	2.6	2.7	4.0	2.3	2.2	11

DATE	TIME	NITRO-GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)
OCT 04...	1210	1200	4.8	5.1	40	2	0	0	<10	<10	10	<10

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)
OCT 04...	44	30	1900	11000	30	130	50	<.5	.00	21	<10	0

DATE	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 04...	30	40	3	64	.0	29	7.1	.0	2.5	.0	2.6	.0

DATE	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 04...	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01467190 COOPER RIVER AT CAMDEN, NJ

LOCATION.--Lat 39°55'35", long 75°05'03", Camden County, Hydrologic Unit 02040202, at bridge on U.S. Routes 130 and 30 in Camden, 3.4 mi (5.5 km) upstream from mouth, 3.5 mi (5.6 km) northwest of Haddonfield, and 3.7 mi (6.0 km) downstream from North Branch Cooper River.

DRAINAGE AREA.--35.2 mi² (91.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-71, 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 12...	1120	370	7.4	16.0	6.3	7.0	<200	20	68	19
FEB 27...	1145	107	6.8	.0	12.9	4.4	>2400	>2400	27	7.5
MAR 27...	0900	228	7.0	8.5	6.3	5.6	540	70	48	13
JUN 11...	1015	255	7.3	23.0	7.4	9.6	9200	>2400	60	17
JUL 19...	0900	170	6.6	25.0	2.9	3.7	9200	1600	43	12
AUG 29...	1030	302	7.2	25.5	8.8	4.0	130	70	65	18

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 12...	5.1	26	9.2	90	0	74	.0	37	33	.3
FEB 27...	1.9	8.2	2.4	15	0	12	--	16	13	.1
MAR 27...	3.8	16	5.1	45	0	37	--	30	23	.1
JUN 11...	4.3	15	5.6	62	0	51	.0	31	23	.2
JUL 19...	3.2	10	4.7	35	0	29	--	24	14	.2
AUG 29...	4.8	22	7.8	73	0	60	--	32	26	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 12...	13	187	1.1	7.6	2.9	10	12	1.1	.88	8.2
FEB 27...	3.3	61	1.0	.80	1.3	2.1	3.1	1.0	.95	7.6
MAR 27...	8.2	123	<1.0	3.6	.70	4.3	--	1.3	1.1	10
JUN 11...	10	151	1.0	3.4	1.8	5.2	6.2	1.4	.38	18
JUL 19...	7.1	65	.75	2.2	1.5	3.7	4.4	1.2	.57	5.6
AUG 29...	12	160	1.1	4.8	1.7	6.5	7.6	2.1	.38	8.0

01467190 COOPER RIVER AT CAMDEN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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 12...	1120	40	1	0	--	--	10	5
JUN 11...	1015	60	7	0	90	1	30	9

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 (UG/L)
OCT 12...	1400	--	110	<.5	10	1	10	1
JUN 11...	1800	30	80	<.5	18	0	60	3

01467329 SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD, NJ

LOCATION.--Lat 39°48'05", long 75°04'27", Gloucester County, Hydrologic Unit 02040202, at bridge on Blackwood-Clementon Road at Blackwood, 1,000 ft (305 m) upstream from Bull Run, and 2.0 mi (3.2 km) northeast of Fairview.

DRAINAGE AREA.--19.1 mi² (49.5 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB 15...	1000	34	132	6.9	1.5	14.8	3.0	350	13	40	11
MAR 21...	1015	34	133	7.2	9.5	10.4	1.3	1300	8	39	11
JUN 12...	0930	99	88	6.9	17.5	8.0	3.1	4300	9400	30	8.2
JUL 17...	1130	204	104	6.8	27.5	5.9	6.2	2300	>24000	31	8.5
AUG 22...	0900	38	114	6.8	20.0	7.5	1.2	1100	270	35	9.7

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 15...	3.0	7.0	2.4	22	0	18	--	19	12	.0
MAR 21...	2.8	6.9	2.3	21	0	17	--	16	13	.1
JUN 12...	2.2	4.2	1.9	24	0	20	.0	14	6.4	.1
JUL 17...	2.4	5.1	2.6	21	0	17	--	13	8.6	.1
AUG 22...	2.6	6.1	2.4	22	0	18	--	12	11	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 15...	7.4	89	1.7	.30	.60	.90	2.6	.25	.25	2.4
MAR 21...	5.8	78	1.5	.20	.90	1.1	2.6	.49	.24	4.7
JUN 12...	4.6	68	<1.0	.20	2.7	2.9	--	.39	.34	9.4
JUL 17...	3.8	70	.80	.30	3.1	3.4	4.2	.36	.13	6.7
AUG 22...	4.8	68	1.3	<.10	--	.80	2.1	.32	.22	4.6

DATE	TIME	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 12...	0930	80	3	0	30	0	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 (UG/L)
JUN 12...	1800	9	30	<.5	7	0	20	1

01467359 NORTH BRANCH BIG TIMBER CREEK AT GLENDORA, NJ

LOCATION.--Lat 39°50'04", long 75°04'02", Camden County, Hydrologic Unit 02040202, at bridge on State Route 168 in Glendora, 0.5 mi (0.8 km) downstream from Otter Brook, 1.0 mi (1.6 km) southeast of Clements Bridge, and 1.6 mi (2.6 km) north of Mechanicsville.

DRAINAGE AREA.--18.8 mi² (48.7 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT										
10...	0930	213	6.6	10.5	5.0	1.8	80	490	51	15
FEB										
15...	1230	202	7.0	.0	12.4	5.5	<2400	49	50	15
MAR										
21...	1230	190	7.3	13.0	9.5	6.2	79	130	47	14
JUN										
12...	1300	114	6.6	18.5	4.0	4.4	790	7900	33	10
JUL										
17...	1315	139	6.6	25.0	2.5	7.8	1300	7900	39	12
AUG										
22...	1045	177	6.7	20.5	4.3	3.4	50	5400	47	14

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT										
10...	3.2	15	4.9	46	0	38	--	23	16	.1
FEB										
15...	3.1	14	4.2	61	0	50	--	27	17	.1
MAR										
21...	3.0	13	3.9	44	0	36	--	25	17	.1
JUN										
12...	2.0	6.6	2.6	27	0	22	.0	17	8.4	.1
JUL										
17...	2.3	8.4	3.6	33	0	27	--	19	11	.1
AUG										
22...	2.8	13	4.2	45	0	37	--	21	13	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
10...	8.0	120	2.1	.99	1.3	2.3	4.4	1.5	1.3	3.5
FEB										
15...	9.9	124	.90	2.1	.80	2.9	3.8	2.0	1.3	6.7
MAR										
21...	8.1	108	1.0	1.5	1.3	2.8	3.8	1.1	1.0	6.2
JUN										
12...	5.8	--	<1.0	.40	2.2	2.6	--	1.0	.80	14
JUL										
17...	5.6	84	.56	.30	1.5	1.8	2.4	1.4	1.3	8.1
AUG										
22...	7.9	107	1.3	<.10	--	1.6	2.9	1.1	.38	9.6

01467359 NORTH BRANCH BIG TIMBER CREEK AT GLENDORA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
JUN 12...	1300	60	6	0	90	0	20	10

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 (UG/L)
JUN 12...	4700	25	60	<.5	10	0	40	0

01467369 ALMONESSON CREEK AT RUNNEMEDE, NJ

LOCATION.--Lat 39°50'44", long 75°05'43", Gloucester County, Hydrologic Unit 02040202, at bridge on State Route 42 in Runnemede, 200 ft (61 m) upstream from mouth, 0.7 mi (1.1 km) south of State Route 42 overpass and NJ Turnpike, and 0.7 mi (1.1 km) northwest of Clements Bridge.

DRAINAGE AREA.--3.79 mi² (9.82 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to 1979 (discontinued).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 10...	1110	272	6.7	13.5	4.3	2.7	<200	330	63	17

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT 10...	5.0	18	5.0	59	0	48	31	22	.2	7.3

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 10...	150	1.8	2.0	.60	2.6	4.4	1.5	.76	6.4

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 10...	1110	11000	48	48	0	<10	30	<10	30	13000	80	120

DATE	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 10...	20	170	330	.0	210	110	73	5.2	.0	14	.0

DATE	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 10...	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, PA, Hydrologic Unit 02040203, on right bank 150 ft (46 m) upstream from Fairmount Dam, 1,500 ft (457 m) upstream from Spring Garden Street Bridge, in Philadelphia, and 8.7 mi (14.0 km) upstream from mouth.

DRAINAGE AREA.--1,893 mi² (4,903 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 241, 261, 281, 301, 381, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Water-quality recorder located at Belmont raw-water pumping station on west side of river near Columbia Bridge. Datum of gage is 5.74 ft (1.750 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956 to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft (12 m) upstream from Fairmount Dam at same datum.

REMARKS.--Records good. Some regulation by reservoirs above station. Records of daily discharge do not include diversion above station by city of Philadelphia for municipal water supply. Refer to U.S. Geological Survey Water Resources Data Report PA-79-1 for water-quality data.

AVERAGE DISCHARGE.--48 years, 2,967 ft³/s (84.03 m³/s), 21.28 in/yr (541 mm/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s (2,920 m³/s) June 23, 1972, gage height, 14.65 ft (4.465 m); no flow over dam at times; minimum daily, 0.6 ft³/s (0.02 m³/s) Sept. 2, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 1896, reached a stage of 17.0 ft (5.18 m), discharge, 135,000 ft³/s (3,820 m³/s), from rating curve extended above 46,000 ft³/s (1,300 m³/s). Flood of Mar. 1, 1902, reached a stage of 14.8 ft (4.511 m), discharge, 98,000 ft³/s (2,780 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 18,000 ft³/s (510 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Dec. 9	2215	21200	600	8.88	2.707	Feb. 26	1100	52300	1480	11.54	3.517
Jan. 3	0130	26200	742	9.38	2.859	Mar. 6	2230	18600	527	8.59	2.618
Jan. 8	1515	30400	861	9.78	2.984	Sept. 7	Unknown	21500	609	Unknown	
Jan. 21	2130	36800	1040	10.35	3.155	Sept. 22	1245	35400	1000	10.23	3.118
Jan. 25	1000	*74100	2100	12.97	3.953						

Minimum discharge, 427 ft³/s (12.1 m³/s) Sept. 5, minimum gage height, 5.86 ft (1.786 m) Nov. 13, 14, 15, 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	734	651	2070	2760	6150	8830	1940	2560	5620	1310	1310	522
2	598	625	1610	11400	5020	7600	1890	2420	5070	1350	1280	497
3	572	598	1380	18500	4100	6450	1850	2240	4660	1350	1210	469
4	572	572	1850	10300	3540	5480	2020	2110	4540	1350	1210	448
5	598	547	4250	7420	3190	5850	2330	2020	4360	1350	1210	445
6	946	572	3470	5830	2570	12400	2900	1980	4190	1310	1100	13500
7	1350	572	2470	5310	2580	14700	3160	1850	4020	1240	1070	12600
8	1010	547	2150	21100	2630	9600	3010	1730	3740	1210	1010	4010
9	734	572	11000	15900	2550	6860	2800	1610	3520	1140	946	2330
10	678	547	13600	8970	2270	5010	3260	1490	3210	1070	883	1660
11	625	530	6860	6780	2000	6330	4020	1420	3060	1010	822	1320
12	598	510	4890	5330	1940	6070	3850	1350	3010	946	822	1100
13	598	490	3960	4700	1690	5500	3630	1280	2900	914	1140	1040
14	598	490	3310	5260	1720	5560	3520	1240	2760	852	1420	1100
15	1070	490	2800	5200	1810	4950	4250	1280	2610	822	1380	1420
16	1310	517	2420	3920	2300	4070	4360	1240	2470	822	1170	1350
17	1310	600	2200	3370	2240	3310	4190	1210	2290	977	1070	946
18	1240	1600	2020	3020	2110	3060	3850	1170	2150	1140	946	763
19	1010	2000	1810	2600	1580	2760	3520	1240	2020	1140	883	706
20	883	1240	1650	2540	1350	2610	3210	1570	1940	1140	852	625
21	822	884	2070	22600	1850	2470	2900	1730	1810	1070	822	678
22	763	760	3060	25600	2360	2200	2660	1690	1690	1040	792	22500
23	734	700	2290	10700	2790	2070	2520	1610	1610	1040	734	9160
24	651	791	1890	15300	8250	2110	2330	3420	1610	1010	678	5010
25	651	1060	9080	62100	32300	4020	2150	6730	1570	1010	651	3160
26	625	850	6790	22900	44300	3690	2020	8080	1490	977	625	2760
27	734	791	4660	10800	22600	2760	2070	8360	1460	946	625	2380
28	914	884	3580	9570	10400	2330	2330	7730	1380	946	625	1650
29	822	1040	2850	8800	---	2110	2610	7050	1310	914	598	1490
30	706	1940	2420	8040	---	2110	2610	6530	1310	914	572	3420
31	678	---	2330	6930	---	2070	---	6130	---	1210	547	---
TOTAL	25134	23310	116790	353550	178170	154940	87760	92070	83380	33520	29003	99059
MEAN	811	777	3767	11400	6363	4998	2925	2970	2779	1081	936	3302
MAX	1350	2000	13600	62100	44300	14700	4360	8360	5620	1350	1420	22500
MIN	572	490	1380	2540	1350	2070	1850	1170	1310	822	547	445
(†)	255	250	252	257	271	263	247	238	238	289	290	269
MEAN ‡	1066	1027	4019	11660	6634	5261	3172	3208	3017	1370	1226	3571
CFSM ‡	0.56	0.54	2.12	6.16	3.50	2.78	0.68	1.69	1.59	0.72	0.65	1.89
IN. ‡	0.65	0.61	2.45	7.10	3.65	3.20	0.87	1.95	1.79	0.83	0.75	2.10

CAL YR 1978 TOTAL 1309873 MEAN 3589 MAX 46400 MIN 490 MEAN ‡ 3863 CFSM ‡ 2.04 IN. ‡ 27.71
WTR YR 1979 TOTAL 1276686 MEAN 3498 MAX 62100 MIN 445 MEAN ‡ 3758 CFSM ‡ 1.99 IN. ‡ 26.95

† Diversion, equivalent in cubic feet per second, for municipal water supply, furnished by city of Philadelphia
‡ Adjusted for diversion

01475000 MANTUA CREEK AT PITMAN, NJ

LOCATION.--Lat 39°44'14", long 75°06'53", Gloucester County, Hydrologic Unit 02040202 at bridge on Delsea Drive in Pitman, and 2.0 mi (3.2 km) upstream from Porch Branch.

DRAINAGE AREA.--6.05 mi² (15.67 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1962, 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB										
14...	0915	12	116	6.6	.0	14.6	.8	33	2	38
MAR										
20...	0900	13	106	6.9	8.5	11.5	1.2	70	<2	33
JUN										
14...	0900	14	77	6.7	18.5	8.4	.8	490	33	26
JUL										
16...	0945	8.8	101	6.8	25.5	8.0	2.1	230	110	34
AUG										
15...	1215	11	95	6.9	20.0	8.5	1.2	140	230	31
SEP										
25...	1015	11	103	6.7	18.5	9.2	1.3	490	130	34

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (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										
14...	8.5	4.1	4.1	2.3	10	0	8	21	9.5	.0
MAR										
20...	7.8	3.4	3.9	2.2	9	0	7	18	8.0	.0
JUN										
14...	6.1	2.7	2.8	1.8	12	0	10	12	5.8	.1
JUL										
16...	7.5	3.6	3.8	2.2	17	0	14	14	7.7	.1
AUG										
15...	7.1	3.2	3.5	2.2	15	0	12	13	7.5	.1
SEP										
25...	7.7	3.5	4.5	2.7	16	0	13	16	9.5	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB										
14...	6.0	86	2.3	<1.0	--	.80	3.1	.03	.01	1.7
MAR										
20...	5.0	60	1.9	<.10	--	.60	2.5	.09	.09	3.2
JUN										
14...	4.1	58	<1.0	<.10	--	1.6	--	.17	--	7.6
JUL										
16...	4.8	82	.85	<.10	--	2.2	3.0	.06	<.01	5.8
AUG										
15...	4.4	70	<1.0	.70	.80	1.5	--	.33	.12	6.0
SEP										
25...	4.5	61	<1.0	.20	--	--	--	.08	.04	7.3

01475045 MANTUA CREEK AT MANTUA, NJ

LOCATION.--Lat 39°47'42", long 75°10'21", Gloucester County, Hydrologic Unit 02040202, at bridge on State Route 45 in Mantua, 0.9 mi (1.4 km) downstream from Chestnut Branch, 1.3 mi (2.1 km) east of Gates of Heaven Memorial Park, and 2.4 mi (3.9 km) northwest of Barnsboro.

DRAINAGE AREA.--41.5 mi² (107.5 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 10...	1330	218	7.2	15.0	9.8	1.3	1300	330	54	15
FEB 14...	1245	194	6.9	.0	14.0	1.6	700	200	57	16
MAR 20...	1230	182	7.1	11.0	11.0	1.4	800	50	50	14
JUN 14...	1150	155	7.0	17.5	8.2	1.0	490	>2400	46	13
JUL 16...	1130	179	6.9	24.5	4.8	2.8	2300	500	51	14
AUG 15...	1400	189	7.2	20.5	7.9	1.6	2200	11000	49	14
SEP 25...	1230	189	6.9	19.0	8.6	2.0	3500	800	50	14

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 10...	3.9	18	2.8	55	0	45	.0	23	19	.2
FEB 14...	4.2	12	3.3	32	0	26	--	29	18	.1
MAR 20...	3.7	12	3.1	28	0	23	--	28	17	.2
JUN 14...	3.4	9.4	2.8	30	0	25	--	23	12	.2
JUL 16...	3.8	12	3.3	40	0	33	--	19	15	.2
AUG 15...	3.5	16	3.3	45	0	37	--	20	17	.2
SEP 25...	3.6	13	3.5	39	0	32	--	24	20	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 10...	10	122	1.0	.08	.72	.80	1.8	.50	.44	2.7
FEB 14...	9.5	124	--	.30	1.9	2.2	--	.13	.13	2.3
MAR 20...	8.5	107	1.7	<.10	--	.54	2.2	.31	.23	4.3
JUN 14...	7.9	91	<1.0	.20	.90	1.1	--	.54	.25	7.6
JUL 16...	7.9	115	.68	<.10	--	1.5	2.2	.28	.02	5.4
AUG 15...	9.3	120	1.0	1.2	.00	1.2	2.2	.65	.51	5.6
SEP 25...	9.8	111	<1.0	.30	--	--	--	.47	.28	4.6

01475045 MANTUA CREEK AT MANTUA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	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)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)
OCT 10...	1330	2000	6.3	6.9	40	2	0	0	<10	10	10	<10

DATE	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, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 10...	4	20	2000	11000	80	60	80	<.5	.00	25	20	0

DATE	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 10...	30	70	0	70	.0	37	28	9.1	7.5	.0	.0	.0

DATE	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 10...	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

01477100 RACCOON CREEK NEAR MULLICA HILL, NJ

LOCATION.--Lat 39°42'31", long 75°12'05", Gloucester County, Hydrologic Unit 02040202, at bridge on Cedar Grove-Richwood Grove Road, 0.6 mi (1.0 km) upstream from Miery Run, 1.0 mi (1.6 km) downstream from outflow of Ewan Lake, 2.5 mi (4.0 km) southeast of Mullica Hill, and 4.0 mi (6.4 km) southwest of Pitman.

DRAINAGE AREA.--10.1 mi² (26.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953-63, 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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 03...	1055	143	7.0	16.0	8.9	1.0	49	230	52	14
FEB 13...	1000	142	6.5	.0	--	.9	5	<2	51	13
MAR 19...	1230	136	6.7	9.5	11.3	1.1	<2	79	47	12
JUN 04...	1000	122	6.7	17.0	8.9	1.6	270	1300	42	11
JUL 10...	1315	137	7.0	22.0	8.4	2.1	--	--	50	13
AUG 21...	1130	132	7.0	21.0	7.8	.9	240	790	44	12
SEP 27...	1145	138	6.6	19.0	8.4	.2	350	490	49	13

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 03...	4.2	3.4	3.6	27	0	22	--	26	10	.1
FEB 13...	4.5	3.1	3.1	7	0	6	--	30	9.7	.1
MAR 19...	4.2	3.3	2.9	7	0	6	--	29	8.5	.1
JUN 04...	3.6	2.8	2.8	12	0	10	--	25	8.6	.1
JUL 10...	4.2	3.4	2.3	15	0	12	--	26	11	.1
AUG 21...	3.4	2.6	3.1	17	0	14	--	23	9.5	.1
SEP 27...	3.9	3.2	3.4	15	0	12	.1	24	9.6	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 03...	4.6	97	1.4	.41	1.9	2.3	3.7	.13	.10	1.9
FEB 13...	7.4	104	3.0	<.10	--	.70	3.7	.03	.03	1.7
MAR 19...	6.0	82	2.2	<.10	--	.40	2.6	.06	.06	5.1
JUN 04...	6.5	92	1.7	<.10	--	2.6	4.3	.18	--	9.5
JUL 10...	4.5	91	--	--	--	--	--	--	--	11
AUG 21...	4.4	76	1.4	<.10	--	<.03	--	.03	<.01	6.1
SEP 27...	5.9	102	1.4	.20	--	--	--	.03	.03	2.9

01477100 RACCOON CREEK NEAR MULLICA HILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	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)
SEP 27...	1145	30	1	10	10	0	10	1

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 (UG/L)
SEP 27...	390	0	20	<.5	1	0	0	4

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ

LOCATION.--Lat 39°44'28", long 75°15'33", Gloucester County, Hydrologic Unit 02040202, on right bank 25 ft (8 m) downstream from county bridge No. 5-F-3 on Harrisonville-Gibbstown Road, 1.8 mi (2.9 km) west of Mullica Hill, and 2.8 mi (4.5 km) east of Swedesboro.

DRAINAGE AREA.--29.9 mi² (77.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 28, 1969, at datum 7.96 ft (2.426 m) higher. July 28, 1969 to Sept. 30, 1969, at datum 5.96 ft (1.817 m) higher.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--13 years, 43.8 ft³/s (1.240 m³/s), 19.89 in/yr (505 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,530 ft³/s (100 m³/s) Aug. 10, 1967, elevation, 17.44 ft (5.316 m) present datum; minimum daily, 2.9 ft³/s (0.082 m³/s) July 14, Aug. 27, 28, Sept. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Jan. 20	Unknown	994	28.2	13.39	4.081	June 12	0030	524	14.8	11.78	3.591
Feb. 25	0700	*1100	31.2	13.67	4.167	Sept. 6	1345	383	10.8	10.98	3.347

Minimum discharge, 11 ft³/s (0.312 m³/s) Nov. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	31	131	47	82	45	42	47	32	25	28
2	16	18	26	93	44	73	52	40	46	34	30	29
3	16	18	24	47	42	64	54	40	47	32	44	28
4	16	18	50	42	42	58	54	41	82	31	39	30
5	17	18	72	43	39	52	53	42	62	34	30	42
6	19	16	42	132	39	74	49	40	57	29	26	255
7	16	20	33	175	39	130	45	39	50	27	24	88
8	16	18	30	62	40	82	41	38	59	26	23	45
9	16	18	91	50	38	67	50	37	39	26	22	37
10	16	17	84	44	40	60	56	37	38	25	22	34
11	16	17	44	45	43	109	52	39	195	25	33	28
12	16	18	37	84	43	80	48	47	257	24	79	32
13	16	17	35	110	43	63	43	52	75	22	64	29
14	16	17	33	76	43	62	82	43	60	23	34	28
15	16	18	31	54	43	57	68	40	41	26	28	31
16	16	20	30	48	42	52	53	38	41	26	26	28
17	34	22	35	46	41	51	48	37	57	57	25	28
18	22	36	32	43	41	50	45	36	65	107	26	26
19	20	26	29	42	45	45	42	130	46	42	32	26
20	18	23	26	900	51	46	40	96	41	31	27	25
21	18	22	44	300	52	43	38	70	38	31	25	26
22	18	21	35	160	76	42	36	50	37	30	27	68
23	18	21	30	84	68	45	35	88	39	28	25	57
24	18	22	42	120	290	62	39	200	48	89	25	37
25	18	22	112	344	867	84	56	346	38	96	25	32
26	18	21	50	90	709	70	84	93	34	37	29	30
27	20	26	41	64	193	57	71	58	32	31	28	29
28	19	37	35	63	111	46	62	50	32	28	50	28
29	18	32	33	62	---	45	51	47	33	26	48	45
30	18	46	32	52	---	44	45	44	30	26	62	114
31	18	---	35	48	---	43	---	42	---	25	33	---
TOTAL	555	663	1304	3654	3211	1938	1537	2042	1766	1126	1036	1363
MEAN	17.9	22.1	42.1	118	115	62.5	51.2	65.9	58.9	36.3	33.4	45.4
MAX	34	46	112	900	867	130	84	346	257	107	79	255
MIN	16	16	24	42	38	42	35	36	30	22	22	25
CFSM	.60	.74	1.41	3.95	3.85	2.09	1.71	2.20	1.97	1.21	1.12	1.52
IN.	.69	.82	1.62	4.55	3.99	2.41	1.91	2.54	2.20	1.40	1.29	1.70

CAL YR 1978 TOTAL 16207 MEAN 44.4 MAX 800 MIN 14 CFSM 1.49 IN 20.16
WTR YR 1979 TOTAL 20195 MEAN 55.3 MAX 900 MIN 16 CFSM 1.85 IN 25.12

NOTE.--No gage-geight record form Apr. 22 to May 24.

01477120 RACCOON CREEK NER SWEDESBORO, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB 13...	1245	43	169	6.8	.0	14.1	1.0	4	<2	60
MAR 29...	1245	45	158	7.0	11.5	10.6	1.4	--	--	55
JUN 04...	1300	93	141	6.9	17.0	9.4	2.2	3500	2400	51
JUL 12...	1200	--	171	7.1	21.5	10.1	1.4	920	350	61
AUG 28...	1215	43	159	7.0	22.0	8.2	1.8	>2400	16000	58

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB 13...	17	4.2	4.5	3.1	20	0	16	--	30	12
MAR 29...	16	3.7	4.3	3.1	16	0	13	--	31	11
JUN 04...	15	3.2	4.3	3.0	21	0	17	.0	24	13
JUL 12...	18	3.8	5.2	3.5	32	0	26	--	25	14
AUG 28...	18	3.2	4.1	3.6	29	0	24	--	24	11

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	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-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 13...	.1	9.9	111	2.7	<.10	.80	3.5	.21	.12	1.8
MAR 29...	.1	8.1	95	--	--	--	--	--	--	--
JUN 04...	.2	9.3	109	2.7	<.10	1.7	4.4	--	.13	6.7
JUL 12...	.2	9.0	123	1.5	<.10	.20	1.7	.40	.40	7.5
AUG 28...	.2	9.2	115	1.2	<.10	.50	1.7	.38	.22	8.2

DATE	TIME	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 04...	1300	50	4	0	20	0	30	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 (UG/L)
JUN 04...	3400	13	80	<.5	13	0	40	9

01477510 OLDMANS CREEK AT PORCHES MILL, NJ

LOCATION.--Lat 39°41'57", long 75°20'01", Salem County, Hydrologic Unit 02040206, at bridge on Kings Highway in Porches Mill, 150 ft (46 m) downstream of tributary from outflow of lake at Porches Mill, 1.0 mi (1.6 km) north of Seven Stars, and 2.1 mi (3.3 km) southeast of Auburn.

DRAINAGE AREA.--21.0 mi² (54.4 km²).

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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
03...	1235	--	200	7.1	15.5	8.4	1.4	330	260	65
FEB										
12...	1215	--	200	6.8	.0	12.7	.9	E33	E22	72
MAR										
19...	0915	--	170	7.0	6.5	11.6	1.1	20	<200	64
JUN										
06...	1145	44	158	7.0	19.5	9.5	1.0	240	170	61
JUL										
10...	1015	--	186	7.1	20.0	8.8	1.3	--	--	76
AUG										
21...	0930	--	186	7.1	20.0	7.6	.8	490	330	70

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (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...	19	4.2	3.7	3.3	45	0	37	25	15	.2
FEB										
12...	20	5.3	4.2	3.3	24	0	20	33	14	.2
MAR										
19...	18	4.7	3.8	3.0	20	0	16	30	13	.2
JUN										
06...	17	4.4	3.4	3.1	24	0	20	25	11	.2
JUL										
10...	22	5.1	4.3	2.5	34	0	28	25	15	.2
AUG										
21...	21	4.2	3.3	3.9	39	0	32	24	14	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
03...	12	124	1.6	.08	1.4	1.5	3.1	.21	.17	2.6
FEB										
12...	11	135	3.7	.10	.80	.90	4.6	.33	.16	1.5
MAR										
19...	9.0	99	2.8	<.10	--	.60	3.4	.18	.15	3.5
JUN										
06...	10	122	1.8	<.10	--	1.9	3.7	.36	.17	7.1
JUL										
10...	10	117	--	--	--	--	--	--	--	7.9
AUG										
21...	10	129	1.8	<.10	--	.50	2.3	.12	.07	4.8

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, AT WILMINGTON, DE

LOCATION.--Lat 39°41'21", long 75°31'19", New Castle County, Hydrologic Unit 02040205, on pier of right tower of downstream bridge of dual bridges at Wilmington, 2.0 mi (3.2 km) downstream from Christina River and at channel mile 67.70 (107.64 km).

DRAINAGE AREA.--11,030 mi² (28,570 km²).

TIDE ELEVATION DATA

PERIOD OF RECORD.--July 1967 to current year. Tidal volumes published from July 1967 to September 1973.

GAGE.--Water-stage recorder and water-quality monitor. Datum of gage is -10.00 ft (-3.048 m) National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum 1929 for publication.

REMARKS.--Refer to U.S. Geological Survey Water Resources Data Report PA-79-1 for water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 7.45 ft (2.271 m) Dec. 2, 1974; minimum, -5.86 ft (-1.786 m) Apr. 4, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 8.4 ft (2.56 m) Nov. 23, 1950, furnished by Corps of Engineers, U.S. Army; minimum, -9.1 ft (-2.77 m) Dec. 31, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 6.74 ft (2.054 m) Sept 6; minimum recorded, -4.83 ft (1.472 m) Jan 18.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.13	5.18	4.76	6.11	--	--	6.62	5.44	5.52	5.41	5.43	6.74
high tide	Date	4	17	31	24	--	--	27	26	11	12	8	6
Minimum	Elevation	-2.47	-2.48	-4.17	-4.83	--	--	-4.11	-2.62	-2.66	-2.43	-2.86	-2.73
low tide	Date	27	29	17	18	--	--	7	17	16	5,7	15	19
Mean high tide		3.89	3.89	3.23	3.70	--	--	4.04	4.18	4.30	4.19	4.07	4.26
Mean water level		1.27	1.32	0.58	0.95	--	--	1.06	1.25	1.35	1.33	1.27	1.42
Mean low tide		-1.49	-1.37	-2.11	-1.88	--	--	-1.89	-1.79	-1.70	-1.67	-1.66	-1.56

NOTE.--No gage-height record Feb. 8-28, Mar. 3 to Apr. 1.

01482500 SALEM RIVER AT WOODSTOWN, NJ

LOCATION.--Lat 39°38'36", long 75°19'52", Salem County, Hydrologic Unit 02040206, on right end of Memorial Lake Dam at Woodstown, 0.2 mi (0.3 km) upstream from small brook, and 0.3 mi (0.5 km) downstream from Pennsylvania-Reading Seashore Lines bridge.

DRAINAGE AREA.--14.6 mi² (37.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to September 1940, December 1941 to current year. Prior to October 1952, published as "Salem Creek at Woodstown".

REVISED RECORDS.--WSP 1432: 1951(M). WSP 1702: 1959.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 19.49 ft (5.941 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977 at datum 10.00 ft (3.048 m) higher.

REMARKS.--Water-discharge records good except those from Oct 1 to Feb. 28, which are fair.

AVERAGE DISCHARGE.--37 years (1942-79), 19.3 ft³/s (0.547 m³/s), 17.95 in/ yr (456 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft³/s (623 m³/s) Sept. 1, 1940 (gage height, 17.98 ft or 5.480 m, present datum, from floodmark in gage house) from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of slope-area measurement of peak flow at site 0.5 mi (0.8 km) downstream; no flow for short periods during many years just after waste gate was closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 929 ft³/s (26.3 m³/s) Jan. 21, gage height, 12.44 ft (3.792 m³/s), no other peaks above base of 350 ft ³/s (9.91 m³/s); minimum daily, 4.5 ft³/s (0.13 m³/s) May 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	22	25	22	44	18	18	6.4	14	11	17
2	13	14	18	118	22	41	20	16	7.4	14	16	16
3	11	14	16	90	18	32	20	16	13	13	32	18
4	11	14	35	32	18	29	25	16	47	11	54	18
5	13	14	57	22	16	27	27	16	41	14	29	22
6	13	14	29	22	14	109	22	16	32	13	19	162
7	11	14	20	41	14	94	18	14	25	11	15	51
8	11	14	18	181	16	44	16	14	22	11	14	25
9	9.6	14	61	57	16	32	22	13	20	9.6	12	17
10	11	14	57	29	14	27	41	13	20	9.6	9.9	17
11	11	14	27	25	14	65	27	14	65	9.6	18	14
12	11	14	20	20	14	41	22	16	94	9.6	69	15
13	11	14	18	29	14	29	22	38	35	9.6	50	16
14	11	14	16	57	14	27	41	61	22	9.6	21	15
15	11	14	16	32	14	25	35	27	20	9.6	14	14
16	11	14	16	25	16	22	25	18	18	11	13	14
17	27	14	18	22	14	22	22	14	20	27	12	14
18	20	25	18	22	14	20	20	14	25	66	11	15
19	14	18	16	18	14	20	18	25	20	32	14	18
20	11	14	16	27	14	20	18	22	18	18	14	17
21	13	11	27	518	14	20	16	18	16	16	13	17
22	13	9.6	22	85	25	18	16	16	14	15	13	56
23	13	8.5	18	38	35	18	16	14	16	14	14	46
24	11	9.6	27	73	155	41	16	38	50	21	14	27
25	11	8.5	94	113	187	54	16	104	20	25	16	19
26	13	8.5	32	44	187	29	22	20	16	17	18	18
27	14	13	22	32	94	22	65	8.5	13	14	24	18
28	14	22	18	29	54	18	32	6.4	13	17	43	18
29	13	22	16	32	---	18	27	5.4	13	17	35	34
30	13	25	16	25	---	18	20	5.4	13	13	36	84
31	14	---	18	22	---	18	---	4.5	---	12	20	---
TOTAL	396.6	432.7	824	1905	1063	1044	725	641.2	754.8	503.2	693.9	852
MEAN	12.8	14.4	26.6	61.5	38.0	33.7	24.2	20.7	25.2	16.2	22.4	28.4
MAX	27	25	94	518	187	109	65	104	94	66	69	162
MIN	9.6	8.5	16	18	14	18	16	4.5	6.4	9.6	9.9	14
CFSM	.88	.99	1.82	4.21	2.60	2.31	1.66	1.42	1.73	1.11	1.53	1.95
IN.	1.01	1.10	2.10	4.85	2.71	2.66	1.85	1.63	1.92	1.28	1.77	2.17

CAL YR 1978 TOTAL 8740.1 MEAN 23.9 MAX 648 MIN 3.7 CFSM 1.64 IN 22.27
WTR YR 1979 TOTAL 9835.4 MEAN 26.9 MAX 518 MIN 4.5 CFSM 1.84 IN 25.06

01482500 SALEM RIVER AT WOODSTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 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 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 11...	0945	11	231	7.6	15.0	8.5	3.8	20	20	87	19
FEB 12...	1000	13	237	6.9	1.5	13.3	1.4	E33	E2	79	17
MAR 28...	1045	18	190	7.2	10.0	11.3	3.1	540	7	65	14
JUN 05...	1245	41	196	7.1	18.5	10.4	5.6	>2400	>2400	69	15
JUL 09...	1215	9.6	211	7.4	25.0	7.8	3.9	130	49	53	9.8
AUG 09...	1130	11	199	7.7	29.0	7.9	4.8	23	49	72	16
SEP 27...	0900	18	201	6.8	19.5	8.8	3.5	920	240	69	15

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	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...	9.6	6.5	4.8	46	0	38	--	32	20	.1
FEB 12...	8.8	6.4	4.0	20	0	16	--	40	18	.1
MAR 28...	7.4	5.6	4.0	18	0	15	--	37	16	.1
JUN 05...	7.7	4.7	6.8	34	0	28	--	31	17	.2
JUL 09...	6.9	20	4.1	37	0	30	--	22	36	.1
AUG 09...	7.9	6.0	6.2	39	0	32	--	25	16	.2
SEP 27...	7.7	5.8	6.3	29	0	24	.1	31	17	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 11...	.5	135	1.0	.08	3.3	3.4	4.4	.25	.18	4.8
FEB 12...	9.1	144	4.3	.30	.70	1.0	5.3	.16	.11	3.2
MAR 28...	6.8	143	2.5	.20	1.3	1.5	4.0	.33	.17	6.5
JUN 05...	7.1	148	2.1	.60	2.3	2.9	5.0	.90	.25	12
JUL 09...	6.5	150	1.5	<.10	--	1.0	2.5	.25	--	5.9
AUG 09...	4.6	144	1.0	.35	2.1	2.5	3.5	.42	.11	6.5
SEP 27...	7.6	142	1.5	.40	--	--	--	.45	.23	5.3

01482500 SALEM RIVER AT WOODSTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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)
SEP 27...	0900	20	2	0	30	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 (UG/L)
SEP 27...	1500	2	100	<.5	3	0	40	6

01482537 SALEM RIVER AT COURSES LANDING, NJ

LOCATION.--Lat 39°39'38", long 75°24'34", Salem County, Hydrologic Unit 02040206, at bridge on Pointers-Auburn Road at Courses Landing, 1.6 mi (2.6 km) north of Halltown, 2.0 mi (3.2 km) northeast of Slapes Corner, and 2.1 mi (3.4 km) downstream of Major Run.

DRAINAGE AREA.--35.8 mi² (92.7 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to 1979 (discontinued).

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 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 11...	1200	284	7.3	13.0	5.8	2.5	270	130	94	26

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 11...	7.0	14	4.8	72	0	59	.0	25	24	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 11...	9.2	165	2.0	.25	3.5	3.8	5.8	.54	.54	3.8

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	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)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)
OCT 11...	1200	3300	38	38	40	2	1	0	<10	10	10	<10

DATE	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, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)
OCT 11...	4	10	2300	9000	10	130	110	<.5	.00	10	10	0

DATE	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 11...	30	50	1	130	.0	22	53	45	19	.0	4.8	.0

DATE	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	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)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 11...	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0

RESERVOIRS IN DELAWARE RIVER BASIN

01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, NY, Hydrologic Unit 02040102, near release chamber at Downsville Dam on East Branch Delaware River, and 1.6 mi (2.6 km) east of Downsville, NY. DRAINAGE AREA, 371 mi² (961 km²). PERIOD OF RECORD, September 1954 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam; storage began Sept. 15, 1954. Usable capacity 140,190 mil gal (530.6 hm³) between minimum operating level, elevation, 1,152.0 ft (351.13 m) and crest of spillway, elevation, 1,280.0 ft (390.14 m). Capacity: at crest of spillway 149,700 mil gal (566.6 hm³); at minimum operating level, 9,609 mil gal (36.37 hm³); at still of diversion tunnel, elevation, 1,143.0 ft (348.39 m), 6,098 mil gal (23.08 hm³); in dead storage below release outlet, elevation, 1,126.50 ft (343.357 m), 1,898 mil gal (7.184 hm³). Figures given herein represent total contents. Reservoir impounds water for diversion through East Delaware Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin (see Delaware River Basin, diversions), for water supply to City of New York; for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Jan. 6, 1955. Records furnished by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 151,932 mil gal (575.1 hm³) May 27, elevation, 1,281.15 ft (390.495 m); minimum observed, 95,703 mil gal (362.2 hm³) Jan. 1, elevation, 1,246.92 ft (380.061 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 154,027 mil gal (583.0 hm³) Apr. 5, 1960, elevation, 1,282.27 ft (390.836 m); minimum observed (after first filling), 9,575 mil gal (36.24 hm³) Dec. 26, 1964, elevation, 1,151.92 ft (351.105 m).

01424997 CANNONSVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, NY, Hydrologic Unit 02040101, in emergency gate tower at Cannonsville Dam on West Branch Delaware River, and 1.8 mi (2.9 km) southeast of Stilesville, NY. DRAINAGE AREA, 454 mi² (1,176 km²). PERIOD OF RECORD, October 1963 to current year. REVISED RECORDS, WRD-NY 1972: 1966. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam; storage began Sept. 30, 1963, usable capacity 95,706 mil gal (362.2 hm³) between minimum operating level, elevation, 1,040.0 ft (316.99 m) and crest of spillway, elevation, 1,150.0 ft (350.52 m). Capacity, at crest of spillway, 98,618 mil gal (373.3 hm³); at minimum operating level, 2,912 mil gal (11.02 hm³); at mouth of inlet channel to diversion tunnel, elevation, 1,035.0 ft (315.47 m), 1,892 mil gal (7.161 hm³); in dead storage below release outlet elevation, 1,020.5 ft (311.05 m), 328 mil gal (1.241 hm³). Figures given herein represent total contents. Impounded water is diverted for New York City water supply via West Delaware Tunnel to Rondout Reservoir in Hudson River basin (see Delaware River Basin, diversion); is released in Delaware River for downstream low flow augmentation as directed by Delaware River Master; and is released for conservation flow in the Delaware River. No diversion prior to Jan. 29. 1964. Records furnished by Bureau of Water Resources Development, City of New York.

EXTREMES FOR CURRENT YEAR: Maximum contents, 107,177 mil gal (405.7 hm³) Mar. 6, elevation, 1,155.30 ft (325.135 m); minimum observed, 50,192 mil gal (190.0 hm³) Dec. 4, 8, elevation, 1,113.42 ft (339.370 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 108,116 mil gal (409.2 hm³) Mar. 15, 1977, elevation, 1,155.85 ft (352.303 m); minimum observed (after first filling), 11,901 mil gal (45.05 hm³) Nov. 7, 1968, elevation, 1,066.24 ft (324.990 m).

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, PA, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi (0.5 km) north of Prompton, 0.4 mi (0.6 km) upstream from highway bridge and 0.5 mi (0.8 km) upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi² (154 km²). PERIOD OF RECORD, December 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungaged bedrock spillway at elevation 1,205.00 ft (367.284 m); storage began July 1960. Capacity at elevation 1,205.00 ft (367.284 m) is 51,700 acre-ft (63.7 hm³). Ordinary minimum (conservation) pool elevation, 1,125.00 ft (342.900 m) capacity, 3,420 acre-ft (4.22 hm³). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR CURRENT YEAR: Maximum contents, 5,990 acre-ft (7.38 hm³) Mar. 6, elevation, 1,132.60 ft (345.216 m); minimum, 3,560 acre-ft (4.39 hm³) Aug. 10, elevation, 1,125.22 ft (342.967 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,170 acre-ft (10.1 hm³) June 29, 1973, elevation, 1,138.40 ft (346.984 m); minimum (after first filling), 2,920 acre-ft (3.60 hm³) Sept. 27, 1964, elevation, 1,123.20 ft (342.351 m).

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15,55", Wayne County, PA, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.45 mi (0.72 km) upstream from unnamed tributary, 2.4 mi (3.9 km) north of Honesdale, and 2.9 mi (4.7 km) upstream from mouth. DRAINAGE AREA, 64.5 mi² (167.1 km²). PERIOD OF RECORD, October 1959 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation, 1,053.00 ft (320.954 m); storage began in October 1959. Capacity at elevation 1,053.00 ft (320.954 m) is 24,500 acre-ft (30.2 hm³). Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR CURRENT YEAR: Maximum contents, 3,060 acre-ft (3.77 hm³) Mar. 6, elevation, 1,005.25 ft (306.400 m); no storage many times.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 6,520 acre-ft (8.04 hm³) June 19, 1973, elevation 1,017.40 ft (310.104 m); no storage many times.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, PA, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek at Wilsonville, 1.2 mi (1.9 km) south of Hawley and 1.5 mi (2.4 km) upstream from mouth. DRAINAGE AREA, 228 mi² (591 km²). PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Power and Light Co.).

Reservoir formed by concrete gravity-type and earthfill dam with concrete spillway at elevation 1,176.00 ft (358.445 m) in two sections. Spillway equipped with roller gate, 14 ft high (4.267 m) on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation 1,190.00 ft (362.712 m), top of gates, is 209,300 acre-ft (258 hm³) of which 157,800 acre-ft (195 hm³) is controlled storage above elevation 1,160.00 ft (353.568 m), minimum pool. Reservoir is used for generation of hydrolelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co.

EXTREMES FOR CURRENT YEAR: Maximum contents, 128,080 acre-ft (157.9 hm³) May 28, elevation, 1,184.80 ft (361.127 m); minimum, 77,980 acre-ft (96.1 hm³) Feb. 23, elevation, 1,175.60 ft (358.323 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 178,200 acre-ft (220 hm³) Aug. 19-21, 1955, elevation, 1,193.45 ft (363.764 m); minimum (after first filling), 12,280 acre-ft (15.1 hm³) Mar. 28, 1958, elevation, 1,162.60 ft (354.360 m).

RESERVOIR IN DELAWARE RIVER BASIN--Continued

01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'25", long 74°47'00", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Mongaup River, and 1.8 mi (2.9 km) northwest of Fowlersville, NY. DRAINAGE AREA, 118 mi² (306 km²) excluding Cliff Lake, Lebanon Lake, and Toronto Reservoir. PERIOD OF RECORD, January 1930 to current year. REVISED RECORDS, WSP 1552: 1951-54. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,010 ft (308 m).

Reservoir is formed by an earthfill dam; storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft³ (40.7 hm³) between elevations 1,010.0 ft (307.85 m), minimum operating pool, and 1,071.2 ft (326.50 m), top of flashboards. Capacity below elevation 1,010.0 ft (307.85 m), minimum operating pool, about 212.7 mil ft³ (6.02 hm³). Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft (307.85 m). Water is received from Cliff Lake, Lebanon Lake, and Toronto Reservoir. Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR CURRENT YEAR: Maximum contents, 1,396 mil ft³ (39.5 hm³) Jan. 3, elevation, 1,070.2 ft (326.20 m); minimum, 922 mil ft³ (26.1 hm³) Mar. 2, elevation, 1,057.4 ft (322.30 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,461.6 mil ft³ (41.4 hm³) Mar. 14, 1977, elevation, 1,071.8 ft (326.68 m); minimum (after first filling), 141.4 mil ft³ (4.00 hm³) Dec. 2, 1938, elevation, 987.5 ft (300.99 m).

01433100 TORONTO RESERVOIR.--Lat 41°37'15", long 74°49'55", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi (4.0 km) southeast of village of Black Lake, NY. DRAINAGE AREA, 23.2 mi² (60.1 km²). PERIOD OF RECORD, January 1926 to current year. REVISED RECORDS, WSP 1552: 1951-54. WSP 1702: 1959(M). Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,165.0 ft (355.09 m).

Reservoir is formed by an earthfill dam completed July 24, 1926; storage began Jan. 13, 1926. Usable capacity, 1,098.2 mil ft³ (31.1 hm³) between elevations 1,165.0 ft (355.09 m), minimum operating pool, and operating pool, about 26.8 mil ft³ (0.759 hm³). Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft (355.09 m). Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 818 mil ft³ (23.2 hm³) June 4, elevation, 1,211.3 ft (369.20 m); minimum observed, 0.0 mil ft³ (0.0 hm³) Sept. 30, elevation, 1,165.0 ft (355.09 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 1,171.2 mil ft³ (33.2 hm³) July 20, 1945, elevation, 1,222.0 ft (372.47 m). minimum observed (after first filling), 26.8 mil ft³ (0.759 hm³) Nov. 15, 1928, elevation, 1,144.5 ft (348.84 m).

01433200 CLIFF LAKE.--Lat 41°35'00", long 74°47'40", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi (4.0 km) northwest of Fowlersville, NY. DRAINAGE AREA, 6.46 mi² (16.7 km²) excluding area above Toronto Reservoir. PERIOD OF RECORD, January 1939 to current year. REVISED RECORDS, WSP 1552: 1951-54. WRD-NY 1975: 1974(m). Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,043.3 ft (318.0 m).

Reservoir is formed by a concrete gravity-type dam; storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft³ (3.85 hm³) between elevations 1,043.3 ft (318.00 m), minimum operating pool, and 1,072.0 ft (326.75 m), top of permanent flashboards. Capacity below elevation 1,043.3 ft (318.00 m), minimum operating pool, about 6.54 mil ft³ (0.185 hm³). Reservoir is used for storage of water for power. Water is received from Toronto and Lebanon Lake reservoirs and is discharged through a tunnel into Swinging Bridge Reservoir. Figures given herein represent contents above 1,043.3 ft (318.00 m). Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 127.8 mil ft³ (3.62 hm³) Jan. 2, elevation, 1,071.0 ft (326.44 m); minimum observed, 43.7 mil ft³ (1.24 hm³) Mar. 5, elevation, 1,057.9 ft (322.45 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 145.44 mil ft³ (4.12 hm³) July 30, 31, 1945, elevation, 1,073.1 ft (327.08 m); minimum observed (after first filling), about 6.54 mil ft³ (0.185 hm³) Mar. 16, 1963, elevation, 1,038.0 ft (316.38 m).

01435900 NEVERSINK RESERVOIR.--Lat 41°49'40", long 74°38'21", Sullivan County, NY, Hydrologic Unit 02040104, at a gate-house at Neversink Dam on Neversink River, and 2 mi (3 km) southwest of Neversink, NY. DRAINAGE AREA, 91.8 mi² (238 km²). PERIOD OF RECORD, June 1953 to current year. GAGE, nonrecording gage read daily at 0900. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam; storage began June 2, 1953. Usable capacity 34,941 mil gal (132.25 hm³) between minimum operating level, elevation, 1,319.0 ft (402 m) and crest of spillway, elevation, 1,440.0 ft (438.9 m). Capacity at crest of spillway, 37,146 mil gal (140.6 hm³); at minimum operating level, 2,205 mil gal (8.35 hm³); dead storage below diversion sill and outlet sill at elevation 1,314.0 ft (400.5 m), 1,680 mil gal (6.36 hm³). Figures given herein represent total contents. Reservoir impounds water for diversion through Neversink-Grahamsville Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin, for water supply of City of New York (see Delaware River Basin, diversions); for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Dec. 3, 1953. Records furnished by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 37,161 mil gal (140.7 hm³) May 27, elevation, 1,440.03 ft (438.921 m); minimum observed, 12,677 mil gal (48.0 hm³) Nov. 13, elevation, 1,375.04 ft (419.112 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 37,978 mil gal (143.7 hm³) Apr. 25, 1961, elevation, 1,441.67 ft (439.421 m); minimum observed (after first filling), 1,985 mil gal (7.513 hm³) Nov. 25, 1964, elevation, 1,316.98 ft (401.415 m).

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, PA, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft (670 m) downstream from Bear Creek and 5 mi (8 km) northwest of White Haven. DRAINAGE AREA, 289 mi² (749 km²). PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft (441.96 m); storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft (441.96 m) is 110,700 acre-ft (136 hm³) of which 108,700 acre-ft (134 hm³) is controlled storage above elevation 1,300.0 ft or 396.24 m (conservation pool). Dead storage is 2,000 acre-ft (2.47 hm³). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow regulated by three gates and low flow by-pass system. Records furnished by Corps of Engineers.

EXTREMES FOR CURRENT YEAR: Maximum contents, 19,660 acre-ft (24.2 hm³) Jan. 26, elevation, 1,366.83 ft (416.610 m); minimum, 1,560 acre-ft (1.92 hm³) Sept. 10, elevation, 1,295.60 ft (394.899 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 42,600 acre-ft (52.5 hm³) June 26, 1972, elevation, 1,398.20 ft (426.171 m); minimum (after establishment of conservation pool), 1,390 acre-ft (1.71 hm³) Dec. 4, 1977, elevation, 1,293.70 ft (394.320 m).

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, PA, 0.7 mi (1.1 km) upstream from Hatchery, 2.6 mi (4.2 km) upstream from Wild Creek Dam, 4.4 mi (7.1 km) upstream from mouth, and 10 mi (16 km) northeast of Palmerton. DRAINAGE AREA, 16.5 mi² (42.7 km²). PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation 1,000.00 ft (304,800 m); storage began in October 1958. Capacity at elevation 1,000.00 ft (304.800 m) is 19,980 acre-ft (24.6 hm³). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.

EXTREMES FOR CURRENT YEAR: Maximum contents, 20,420 acre-ft (25.2 hm³) Mar. 27, elevation, 1,000.75 ft (305.029 m); minimum, 13,050 acre-ft (16.1 hm³) Sept. 30, elevation, 983.09 ft (299.646 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 20,520 acre-ft (25.3 hm³) Mar. 28, 1978, elevation, 1,000.92 ft (305.080 m); minimum, 176 acre-ft (0.217 hm³) Oct. 6, 1965, elevation, 902.40 ft (275.052 m).

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, PA, 1.6 mi (2.6 km) upstream from mouth, 2.4 mi (3.9 km) south of Hatchery, and 7.5 mi (12 km) northeast of Palmerton. DRAINAGE AREA, 22.2 mi² (57.5 km²). PERIOD OF RECORD, January 1941 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 820.00 ft (249.936 m); storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft (249.936 m) is 12,500 acre-ft (15.4 hm³) of which 12,000 acre-ft (15 hm³) is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is accomplished by valves on pipe through dam. Records furnished by city of Bethlehem. Since October 1969 the basin upstream has received diversion from Tunkhannock Creek basin.

EXTREMES FOR CURRENT YEAR: Maximum contents, 12,240 acre-ft (15.1 hm³) Mar. 7, elevation, 820.81 ft (250.183 m); minimum, 11,540 acre-ft (14.2 hm³) Oct. 1, elevation, 818.03 ft (249.336 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 12,880 acre-ft (15.9 hm³) May 23, 1942, elevation, 822.93 ft (250.829 m); minimum (after first filling), 2,680 acre-ft (3.30 hm³) Nov. 15, 1966, elevation, 774.10 ft (235.946 m).

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, PA, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.45 mi (0.72 km) upstream from gaging station on Pohopoco Creek, 0.55 mi (0.88 km) upstream from Sawmill Run and 2.3 mi (3.7 km) northeast of Parryville. DRAINAGE AREA, 96.3 mi² (249.4 km²). PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation 651.00 ft (198.425 m); storage began Feb. 8, 1971. Capacity at elevation 651.00 ft (198.425 m) is 68,300 acre-ft (84.2 hm³). Ordinary minimum (conservation) pool elevation, 628.00 ft (191.414 m), capacity, 41,250 acre-ft (50.9 hm³). Dead storage is 1,390 acre-ft (1.71 hm³). Reservoir is used for recreation, flood control, low flow augmentation and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system and two flood-control gates. Records furnished by Corps of Engineers.

EXTREMES FOR CURRENT YEAR: Maximum contents 45,980 acre-ft (56.7 hm³) Jan. 26, elevation, 632.80 ft (192.877 m); minimum, 34,090 acre-ft (42.0 hm³) Nov. 14, elevation, 619.90 ft (188.946 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents 49,730 acre-ft (61.3 hm³) Jan. 29, 1976, elevation, 636.30 ft (193.944 m); minimum, 136 acre-ft (0.168 hm³) Feb. 8, 1971, elevation, 516.20 ft (157.338 m).

01455400 LAKE HOPATCONG.--Lat 40°55'00", long 74°39'50", Morris County, Hydrologic Unit 02040105, in gatehouse of Lake Hopatcong Dam on Musconetcong River at Landing. DRAINAGE AREA, 25.6 mi² (66.3 km²). PERIOD OF RECORD, February 1887 to current year. Monthend contents only prior to October 1950, published in WSP 1302. GAGE, water-stage recorder. Prior to June 24, 1928, daily readings obtained by measuring from high-water mark to water surface converted to gage height, present datum. Datum of gage is 914.57 ft (278.761 m).

Lake is formed by concrete spillway and earthfill dam completed about 1828. Crest of spillway was lowered 0.11 ft (0.034 m) in 1925. Usable capacity, 7,459,000,000 gal (28.23 hm³) between (gage height -2.6 ft or -0.792 m, sills of gates and 9.00 ft or 2.743 m, crest of spillway). Flow regulated by four gates (3 by 5 ft or 0.914 by 1.524 m), also by one 24-inch (0.610 m) pipe with gate valve to recreation fountain 250 ft (76.2 m) downstream from dam. Dead storage, about 8,117,000,000 gal (30.72 hm³). Figures given herein represent usable capacity. Lake used for recreation.

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,066,000,000 gal (30.53 hm³) Sept 7, 8, gage height, 9.72 ft (2.963 m); minimum contents, 5,396,000,000 gal (20.42 hm³) Dec. 4, gage height, 6.44 ft (1.963 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,532,000,000 gal (32.29 hm³) June 24, 1972, gage height, 10.27 ft (3.130 m); minimum, 1,525,000,000 gal (5.77 hm³) Dec. 29, 1960, gage height, 0.65 ft (0.198 m).

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30". Schuylkill County, PA, Hydrologic Unit 02040106, at dam on Still Creek, 1 mi (1.6 km) upstream from mouth and 2.3 mi (3.7 km) north of Hometown, PA. DRAINAGE AREA, 8.5 mi² (22.0 km²). PERIOD OF RECORD, January 1933 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Panther Valley Water Co.).

Reservoir formed by earth fill dam, with ungated concrete spillway at elevation 1,182.00 ft (360.274 m); storage began in February 1933. Capacity at elevation, 1,182.00 ft (360.274 m) is 8,290 acre-ft (10.2 hm³). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Panther Valley Water Co.

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,446 acre-ft (7.5 hm³) Jan. 26, elevation, 1,182.50 ft (360.426 m); minimum, 6,620 acre-ft (8.16 hm³) NOv. 30, elevation, 1,176.08 ft (359.078 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,570 acre-ft (10.6 hm³) Oct. 15, 1955, elevation, 1,182.92 ft (360.554 m), but may have been greater during 1950 and 1951 water years; minimum (after initial filling), 588 acre-ft (0.725 hm³) Dec. 8, 1944, elevation, 1,136.70 ft (346.466 m).

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, PA, Hydrologic Unit 02040203, at dam on Perkiomen Creek at Green Lane, PA, 0.4 mi (0.6 km) west of Green Lane and 2.1 mi (3.4 km) upstream from Unami Creek. DRAINAGE AREA, 70.9 mi² (183.6 km²). PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Philadelphia Suburban Water Co.).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft (87.173 m); storage began December 21, 1956. Capacity at spillway level, elevation 286.00 ft (87.173 m), 13,430 acre-ft (16.6 hm³). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Philadelphia Suburban Water Co.

EXTREMES FOR CURRENT YEAR: Maximum contents, 16,980 acre-ft (20.9 hm³) May 5, elevation, 289.99 ft (88.389 m); minimum, 12,500 acre-ft (15.4 hm³) Nov. 16, elevation, 284.94 ft (86.850 m).

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 17,030 acre-ft (21.0 hm³) June 23, 1972, elevation, 290.05 ft (88.407 m); minimum (after first filling), 1,270 acre-ft (1.57 hm³) Aug. 25, 1957, elevation, 251.60 ft (76.688 m).

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

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 (acre-feet)	Change in contents (equivalent in ft³/s)
	01416900 PEPACTON RESERVOIR ‡			01424997 CANNONSVILLE RESERVIOR ‡			01428900 PROMPTON RESERVOIR †		
Sept. 30	1,257.75	111,898	-	1,128.60	68,473	-	1,125.35	3,520	-
Oct. 31	1,254.22	106,449	272	1,122.44	60,762	385	1,126.33	3,790	+4.4
Nov. 30	1,248.73	98,300	420	1,114.04	50,881	-510	1,125.50	3,560	-3.9
Dec. 31	1,246.92	95,703	-130	1,113.79	50,604	-13.8	1,128.38	4,420	+14.0
CAL YR 1978	-	-	-230	-	-	-212	-	-	+1.2
Jan. 31	1,265.35	124,154	+1,420	1,142.38	87,225	+1,830	1,126.25	3,770	-10.6
Feb. 28	1,264.75	123,160	-54.9	1,149.08	97,219	+552	1,127.48	4,130	+6.5
Mar. 31	1,280.37	150,484	+1,360	1,151.27	100,662	+172	1,127.23	4,050	-1.3
Apr. 30	1,280.42	150,557	+4.80	1,151.13	100,436	-11.7	1,126.82	3,930	-2.0
May 31	1,280.46	150,651	-3.69	1,152.05	101,918	-74.0	1,128.23	4,370	+7.2
June 30	1,276.69	143,765	-355	1,147.95	95,500	-331	1,125.50	3,560	-13.6
July 31	1,268.75	129,898	-694	1,140.80	84,942	-527	1,125.30	3,500	-1.0
Aug. 31	1,260.22	115,805	-702	1,129.35	69,428	-774	1,125.26	3,490	-.2
Sept. 30	1,255.70	108,714	-366	1,128.62	68,498	-48.0	1,125.57	3,580	+1.5
WTR YR 1979	-	-	-13.5	-	-	+0.11	-	-	+0.1

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft³/s)
	01429400 GENERAL EDGAR JADWIN RESERVOIR †			01431700 LAKE WALLENPAUPACK †			01433000 SWINGING BRIDGE RESERVOIR †		
Sept. 30	974.68	0	-	1,178.90	95,660	-	1,065.0	1,191	-
Oct. 31	975.34	0	0	1,178.60	94,040	-26.3	1,066.9	1,264	-27.1
Nov. 30	975.75	0	0	1,178.20	91,880	-36.3	1,064.3	1,165	-38.2
Dec. 31	976.22	0	0	1,178.20	91,880	0.	1,068.9	1,343	+66.4
CAL YR 1978	-	-	0	-	-	-26.2	-	-	+6.9
Jan. 31	977.22	0	0	1,181.70	110,850	+308.5	1,069.6	1,371	+10.5
Feb. 28	978.26	5	+.1	1,177.10	85,940	-435.5	1,057.5	926	-184
Mar. 31	977.88	0	-.1	1,180.90	106,460	+333.7	1,068.4	1,323	+148
Apr. 30	978.23	5	+.1	1,182.80	116,900	+175.5	1,068.7	1,335	+4.8
May 31	978.78	0	-.1	1,183.90	123,040	+99.9	1,066.5	1,249	-32.4
June 30	975.34	0	0	1,181.80	111,400	-195.6	1,062.0	1,081	-64.7
July 31	974.73	0	0	1,181.50	109,750	-26.8	1,060.3	1,021	-22.4
Aug. 31	974.75	0	0	1,181.40	109,200	-8.9	1,060.8	1,038	+6.4
Sept. 30	974.98	0	0	1,178.90	95,660	-227.6	1,065.0	1,191	-59.1
WTR YR 1979	-	-	0	-	-	0	-	-	0.0

Date	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft³/s)
	01433100 TORONTO RESERVOIR †			01433200 CLIFF LAKE RESERVOIR †			01435900 NEVERSINK RESERVOIR ‡		
Sept. 30	1,177.2	94.9	-	1,064.9	83.0	-	1,387.89	16,353	-
Oct. 31	1,177.8	103	+2.9	1,066.7	95.1	+4.5	1,377.28	13,282	-153
Nov. 30	1,178.3	109	+2.6	1,064.3	79.2	-6.1	1,379.62	13,926	+33.2
Dec. 31	1,183.0	179	+26.0	1,067.7	102	+8.6	1,392.80	17,908	+199
CAL YR 1978	-	-	-14.1	-	-	+0.5	-	-	-61.6
Jan. 31	1,198.1	470	+109	1,070.6	124	+8.3	1,420.72	28,344	+521
Feb. 28	1,195.4	411	-24.6	1,059.0	48.9	-31.2	1,417.41	26,969	-76.0
Mar. 31	1,205.6	660	+93.1	1,070.0	120	+26.4	1,438.82	36,565	+469
Apr. 30	1,208.4	750	+34.5	1,068.7	110	-3.9	1,434.86	34,658	-98.4
May 31	1,210.5	795	+16.8	1,066.9	96.5	-4.9	1,439.38	36,840	+109
June 30	1,207.2	703	-35.4	1,068.0	104	+3.0	1,428.60	31,767	-262
July 31	1,192.8	353	-131	1,064.1	78.0	-9.9	1,415.56	26,216	-277
Aug. 31	1,179.8	130	-83.3	1,061.6	63.0	-5.6	1,402.73	21,313	-245
Sept. 30	1,178.7	115	-5.9	1,065.0	83.7	+8.0	1,408.12	23,306	+103
WTR YR 1979	-	-	+0.6	-	-	0.0	-	-	+29.5

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)
	01447780 FRANCIS E. WALTER LAKE ‡			01449400 PENN FOREST RESERVOIR †			01449700 WILD CREEK RESERVOIR †		
Sept. 30	1,298.44	1,830	-	994.26	17,420	-	818.02	11,540	-
Oct. 31	1,300.75	2,080	+4.1	990.44	15,820	-26.0	818.50	11,670	+2.1
Nov. 30	1,301.77	2,180	+1.7	987.32	14,610	-20.3	818.23	11,600	-1.2
Dec. 31	1,299.81	1,980	-3.3	988.63	15,110	+8.1	818.21	11,590	-.2
CAL YR 1978	-	-	-.2	-	-	-7.0	-	-	+.7
Jan. 31	1,306.60	2,690	+11.6	1,000.46	20,250	+83.6	820.42	12,130	+8.8
Feb. 28	1,335.65	7,690	+90.0	1,000.43	20,230	-.4	820.42	12,130	0
Mar. 31	1,299.99	2,000	-92.5	1,000.25	20,120	-1.8	820.22	12,070	-1.0
Apr. 30	1,300.67	2,070	+1.2	1,000.29	20,150	+.5	820.34	12,100	+.5
May 31	1,303.64	2,360	+4.7	1,000.36	20,190	+.7	820.41	12,120	+.3
June 30	1,305.41	2,560	+3.4	999.51	19,760	-7.2	820.12	12,040	-1.3
July 31	1,299.74	1,970	-9.6	991.15	16,120	-59.2	820.36	12,100	-1.0
Aug. 31	1,300.30	2,030	+1.0	986.20	14,180	-31.5	818.96	11,790	-5.0
Sept. 30	1,304.96	2,510	+8.1	983.09	13,050	-19.0	819.50	11,900	+1.8
WTR YR 1979	-	-	+.9	-	-	-6.0	-	-	+.5

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Gage Height (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)
	01449790 BELTZVILLE LAKE†			01455400 LAKE HOPATCONG †			01469200 STILL CREEK RESERVOIR †		
Sept. 30	627.28	40,570	-	8.75	7,252	-	1,178.58	7,310	-
Oct. 31	626.53	39,850	-11.7	8.59	7,120	-6.6	1,178.08	7,170	-2.3
Nov. 30	626.20	39,540	-5.2	6.59	5,513	-82.9	1,176.08	6,620	-9.2
Dec. 31	625.82	39,190	-5.7	6.51	5,451	-3.1	1,177.17	6,920	+4.9
CAL YR 1978	-	-	-1.9	-	-	+0.6	-	-	-1.9
Jan. 31	627.28	40,180	+16.1	8.25	6,840	+69.3	1,182.25	8,360	23.4
Feb. 28	630.53	43,530	+60.3	7.34	6,104	-40.7	1,182.17	8,340	-0.4
Mar. 31	626.55	39,870	-59.5	8.52	7,062	+47.8	1,182.04	8,300	-0.7
Apr. 30	628.71	41,920	+34.4	9.34	7,745	+35.2	1,182.04	8,300	0
May 31	629.00	42,200	+4.5	8.05	6,677	-53.3	1,182.17	8,340	+0.7
June 30	627.77	41,030	-19.7	9.12	7,560	+45.5	1,181.75	8,210	-2.2
July 31	628.20	41,440	-6.7	8.93	7,401	-7.9	1,181.25	8,070	-2.3
Aug. 31	627.40	40,680	-12.4	9.08	7,526	+6.2	1,180.17	7,750	-5.2
Sept. 30	628.12	41,360	+11.4	9.31	7,719	+9.9	1,181.33	8,090	+5.7
WTR YR 1979	-	-	+1.1	-	-	+2.0	-	-	+1.1

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)
	01472200 GREEN LANE RESERVOIR †		
Sept. 30	285.65	13,120	-
Oct. 31	285.35	12,850	-4.4
Nov. 30	285.95	13,390	+9.1
Dec. 31	286.13	13,560	+ 2.8
CAL YR 1978	-	-	+.1
Jan. 31	286.10	13,520	-.7
Feb. 28	286.24	13,640	+2.2
Mar. 31	286.04	13,470	-2.8
Apr. 30	286.04	13,470	0
May 31	286.07	13,490	+ .3
June 30	285.96	13,400	-1.5
July 31	285.96	13,400	-1.5
Aug. 31	285.88	13,330	-1.1
Sept. 30	286.00	13,430	+1.7
WTR YR 1979	-	-	+.4

‡ Elevation at 0900 hours on first day of following month.
† Elevation or gage height at 2400 hours.
a Observed.
e Estimated.
* Elevation at 0900 hours.

DIVERSIONS AND WITHDRAWALS

WITHDRAWALS FROM THE DELAWARE RIVER BASIN

01415200 Diversion from Pepacton Reservoir, NY, on East Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Jan. 6, 1955. Records furnished by Board of Water Supply and Department of Water Resources, city of New York. REVISIONS (Water Years).--WRD-NY 1972: 1970.

01423900 Diversion from Cannonsville Reservoir, NY, on West Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Jan. 29, 1964. Records furnished by Board of Water Supply, city of New York.

01435800 Diversion from Neversink Reservoir, NY, on Neversink River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Dec. 3, 1953. Records furnished by Board of Water Supply and Department of Water Resources, city of New York.

01436520 Village of Woodridge, NY, diverts water from East Pond Reservoir, tributary to Neversink River, for municipal supply outside of basin. Records furnished by village of Woodridge.

01437360 Diversion from Bear Swamp Reservoir, NY, tributary to Neversink River, by the New York State Training School,Otisville, NY, for water supply outside of basin. Records furnished by Delaware River Basin Commission.

01447750 Diversion from Bear Creek, PA, tributary to Lehigh River, by Bear Creek Gas and Water Company for water supply outside of basin. Records furnished by Delaware River Basin Commission.

01448830 Diversion from Hazle Creek Watershed by Hazelton Joint Sewerage Authority for municipal water supply. Waste effluent from the municipal water system is released to the Susquehanna River. Records furnished by Delaware River Basin Commission.

01460500 Diversion by Delaware and Raritan Canal from Delaware River at Raven Rock, for municipal and industrial use. Water is discharged into the Raritan River at New Brunswick. Records of discharge are collected on the Delaware and Raritan Canal at Kingston, (see station 01460500).

01467480 Diversion from Mud Run, PA, tributary to Schuylkill River, discontinued about Oct. 1, 1978. Records furnished by Delaware River Basin Commission.

WITHDRAWALS BY CITY OF NEW YORK

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Month	PEPACTON RESERVOIR	CANNONSVILLE RESERVOIR	NEVERSINK RESERVOIR
October	576	275	170
November	446	748	41.6
December	750	733	.75
CAL YR 1978	645	214	249
January	586	554	58.5
February	523	0.44	214
March	720	87.9	288
April	561	172	457
May	452	368	216
June	614	127	386
July	744	0	313
August	746	0	303
September	743	178	251
WTR YR 1979	623	272	224

MISCELLANEOUS WITHDRAWALS FROM BASIN

	EAST POND RESERVOIR	BEAR SWAMP RESERVOIR	BEAR CREEK	HAZLE CREEK	DELAWARE & RARITAN CANAL	MUD RUN
October	.5	.5	0	3.9	77.2	0
November	.5	.5	0	3.9	92.9	0
December	.5	.5	0	3.9	110	0
CAL YR 1978	.5	.5	0	3.9	89.9	.6
January	.5	.5	0	3.9	115	0
February	.5	.3	0	3.9	104	0
March	.5	.5	6.8	3.9	105	0
April	.5	.5	16.1	3.9	110	0
May	.5	.5	7.0	3.9	73.2	0
June	.5	.5	0	3.9	87.5	0
July	.5	.5	0	3.9	78.1	0
August	.5	.5	0	3.9	84.9	0
September	.5	.5	0	4.6	79.0	0
WTR YR 1979	.5	.5	2.5	3.9	93.0	0

DIVERSIONS AND WITHDRAWALS--Continued

DIVERSIONS WITHIN THE DELAWARE RIVER BASIN

01463480 Diversion from the Delaware River at the Morrisville Filtration Plant for municipal supply, by the Borough of Morrisville, PA. The water withdrawn at this site is returned to the basin after treatment, only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Borough of Morrisville, PA.

01463500 Diversion from the Delaware River just above the Trenton gaging station for municipal supply by the city of Trenton, NJ. The water being withdrawn is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records furnished by the city of Trenton.

01467030 Diversion from the Delaware River at the Torresdale Intake for municipal supply, by the city of Philadelphia, PA. The water being withdrawn at this intake is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Delaware River Basin Commission.

01474500 Diversion from the Schuylkill River at the Belmont and Queen Lanes Intakes for municipal supply, by the city of Philadelphia, PA. The water being withdrawn at these intakes is returned after treatment within the Delaware River basin only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Delaware River Basin Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Month	WITHDRAWAL BOROUGH OF MORRISVILLE	WITHDRAWAL CITY OF TRENTON	WITHDRAWAL CITY OF PHILADELPHIA		
			SCHUYLKILL RIVER BELMONT	SCHUYLKILL RIVER QUEEN LANE	DELAWARE RIVER TORRESDALE
October	6.9	48.6	98.1	149.1	333.5
November	6.5	50.1	100.5	149.4	321.0
December	6.4	48.6	99.1	153.0	311.1
CAL YR 1978	7.1	51.1	100.5	150.9	316.8
January	6.2	50.0	101.2	156.1	327
February	6.0	51.4	107.4	164.0	354
March	6.4	50.9	106.9	156.2	346.4
April	6.1	47.1	86.3	161.1	337
May	6.6	49.0	92.7	146.6	332.6
June	6.9	50.7	108.6	129.0	361.2
July	7.0	51.2	121.6	167.2	367.7
August	7.3	50.3	119.4	170.6	367.6
September	7.1	49.5	102.4	166.1	336.5
WTR YR 1979	6.6	49.7	67.0	100.6	220.6

DIVERSIONS IMPORTED INTO BASIN

01367630 Water diverted from Morris Lake, tributary to the Wallkill River (Hudson River basin), by the Newton Water and Sewer Authority for municipal use. After use the water is released into the Paulins Kill (Delaware River basin). Records furnished by the Delaware River Basin Commission.

01578420 Water diverted from West Branch Octoraro Creek (Susquehanna River basin) at the McCray Plant of the Octoraro Water Co., for municipal use. After use the water is released into the Delaware River basin. Records furnished by the Delaware River Basin Commission.

01578450 Water diverted from Octoraro Lake (Susquehanna River basin) by Chester Water Authority for municipal use. After use the water is released into the Delaware River basin. Records furnished by the Delaware River Basin Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Month	MORRIS LAKE	OCTORARO CREEK	
		OCTORARO WATER CO.	CHESTER WATER AUTHORITY
October	1.2	2.3	29.2
November	1.1	2.0	29.6
December	1.2	2.2	29.1
CAL YR 1978	1.3	2.0	41.3
January	1.2	2.3	28.9
February	1.4	2.2	29.6
March	1.4	2.3	29.1
April	1.5	2.2	28.3
May	1.5	2.2	28.0
June	1.4	2.2	28.4
July	1.4	2.5	29.1
August	1.5	2.5	29.6
September	1.4	2.3	29.1
WTR YR 1979	1.4	2.3	29.0

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 discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in New Jersey made a 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 1979

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Maurice River basin				
01411450	Still Run at Aura, NJ	Lat 39°40'23", long 75°07'50", Gloucester County, at bridge on Aura-Glassboro Road, 0.4 mi (0.6 km) east of Aura, 1.0 mi (1.6 km) upstream of Silver Lake, and 2.6 mi (4.2 km) southeast of Glassboro.	3.21 (8.31 km^2)	1966, 1976-79	9-11-79	3.8
01411456	Little Ease Run near Clayton, NJ	Lat 39°39'32", long 75°04'04", Gloucester County, at bridge on Academy Road, 0.9 mi (1.4 km) west of Fries Mill, 1.3 mi (2.1 km) east of Clayton, and 1.4 mi (2.3 km) downstream from Beaverdam Branch.	9.77 (25.30 km^2)	1966, 1976-79	9-11-79	9.5
01411462	Scotland Run at Franklinville, NJ	Lat 39°37'05", long 75°03'36", Gloucester County, at bridge on State Route 538, 0.9 mi (1.4 km) east of Franklinville, 2.7 mi (4.3 km) upstream of Malaga Lake, and 2.8 mi (4.5 km) southeast of Clayton.	14.8 (38.3 km^2)	1976-79	9-11-79	20
01411700	Muddy Run at Centerton, NJ	Lat 39°31'28", long 75°10'09", Salem County, 180 ft (55 m) downstram of unnamed right bank tributary, 200 ft (60 m) downstream of bridge on New Jersey Routes 540 and 553 in Centerton, and 4.7 mi (7.6 km) south of Elmer.	37.7 (97.6 km^2)	1976-79	9-11-79	43
01411850	Mill Creek near Millville, NJ	Lat 39°25'33", long 75°05'11", Cumberland County, at bridge on dirt road, 1.2 mi (1.9 km) upstream from mouth, 3.3 mi (5.3 km) northwest of Millville.	15.1 (39.1 km^2)	1973-79	9-12-79	13
01412120	Muskee Creek near Port Elizabeth, NJ	Lat 39°18'56", long 74°57'31", Cumberland County, at bridge on State Route 548, 1.3 mi (2.1 km) east of Port Elizabeth, 1.9 mi (3.1 km) upstream from mouth, and 2.8 mi (4.5 km) northeast of Mauricetown.	13.1 (33.9 km^2)	1969, 1976-79	9-12-79	24
		Cohansey River basin				
01412405	Cohansey River near Beals Mill, NJ	Lat 39°31'29", long 75°15'59", Cumberland County, at bridge on Beals Mill Road, 1,300 ft (4,000 m) downstream of Beals Mill and Bostwick Lake, and 1.6 mi (3.0 km) west of Deerfield Street.	9.44 (24.45 km^2)	1976-79	9-11-79	7.9

Discharge measurements made at low-flow partial-record stations during water year 1979--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Cohansey River basin--Continued				
01413010	Barrett Run near Bridgeton, NJ	Lat 39°26'58", long 75°15'42", Cumberland County, at bridge on Mary Elmer Drive, 1,800 ft (550 m) upstream from Mary Elmer Lake, and 2.1 mi (3.4 km) northwest of the intersection of State Routes 49 and 77 in Bridgeton.	7.02 (18.18 km^2)	1966, 1976-79	9-12-79	4.6
01413020	Indian Fields Branch at Bridgeton, NJ	Lat 39°26'04", long 75°13'08", Cumberland County, at bridge on Manheim Avenue in Bridgeton, 1,300 ft (4,000 m) upstream of East Lake.	4.64 (12.02 km^2)	1976-79	9-12-79	7.1
		Delaware River basin				
01439830	Big Flat Brook at Tuttles Corner, NJ	Lat 41°12'00", long 74°48'56", Sussex County, at bridge on State Route 521, 0.7 mi (1.1 km) west of intersection with U.S. Route 206 at Tuttles Corner, 1.2 mi (1.9 km) south of Layton, and 2.0 mi (3.2 km) above Little Flat Brook.	28.2 (73.0 km^2)	1963, 1970-73, 1979	12-07-78 8-01-79	24 7.7
01443450	Paulins Kill near Newton, NJ	Lat 41°04'59", long 74°46'57", Sussex County, at bridge at inlet of Paulins Kill Lake, 2.4 mi (3.9 km) northwest of Newton.	69.0 (178.7 km^2)	1973-79	9-11-79	81
01443460	Paulins Kill at Paulins Kill, NJ	Lat 41°03'08", long 74°49'42", Sussex County, at bridge on Paulins Kill Lake Road, 300 ft (90 m) downstream from Paulins Kill Lake, 0.45 mi (0.72 km) southwest of Paulins Kill.	72.9 (188.8 km^2)	1973-79	9-11-79	80
01443475	Trout Brook near Middleville, NJ	Lat 41°03'03", long 74°51'23", Sussex County, at bridge on County Highway 612, 0.4 mi (0.6 km) upstream from mouth, 0.5 mi (0.8 km) southeast of Middleville, and 5.1 mi (8.2 km) west of Newton.	24.0 (62.2 km^2)	1979	4-19-79 9-11-79	64 39
*01445000	Pequest River at Huntsville, NJ	Lat 40°58'49", long 74°46'38", Sussex County, on right bank 20 ft (6 m) upstream from highway bridge in Huntsville, 0.4 mi (0.6 km) downstream from East Branch.	31.4 (81.3 km^2)	1940-62‡, 1963-74, 1976-79	1-31-79 6-22-79	3.5 42
*01446000	Beaver Brook near Belvidere, NJ	Lat 40°50'40", long 75°02'48", Warren County, on right bank, 2,000 ft (610 m) upstream from mouth and 2.0 mi (3.2 km) east of Belvidere.	36.2 (93.7 Km^2)	1922-61‡, 1963-79	(a)	b6.2
01455100	Lopatcong Creek at Phillipsburg, NJ	Lat 40°40'38", long 75°10'13", Warren County, at bridge on alternate U.S. Route 22 in Phillipsburg, 100 ft (30 m) upstream from tracks of Central Railroad of New Jersey, and 3,000 ft (910 m) above mouth.	14.2 (36.8 km^2)	1958-64, 1979	4-13-79 7-13-79	17 7.9
01455300	Pohatcong Creek at Carpentersville, NJ	Lat 40°37'30", long 75°11'10", Warren County, at bridge on Carpentersville-Riegelsville Road, 2,000 ft (610 m) above mouth, and 0.7 mi (1.1 km) south of Carpentersville.	57.1 (147.9 km^2)	1932, 1958-64, 1979	7-20-79	44
01455370	Weldon Brook at Hurdtown, NJ	Lat 40°58'10", long 74°35'56", Morris County, at bridge on Union Turnpike at Hurdtown, 500 ft (150 m) downstream from Lake Shawnee Dam.	8.10 (20.98 km^2)	1973-79	9-11-79	26
01458100	Hakihokake Creek at Milford, NJ	Lat 40°34'06", long 75°05'44", Hunterdon County, at highway bridge in Milford, 4,000 ft (1,200 m) upstream from mouth.	17.2 (44.5 km^2)	1944, 1958-64, 1979	4-13-79 7-30-79	32 32
01458400	Harihokake Creek near Frenchtown, NJ	Lat 40°32'53", long 75°04'09", Hunterdon County, at bridge on Frenchtown-Milford Road, 1,600 ft (490 m) upstream from mouth, and 1.5 mi (2.4 km) north of Frenchtown.	17.2 (25.3 km^2)	1944, 1958-65, 1979	4-12-79 7-30-79	19 15

Discharge measurements made at low-flow partial-record stations during water year 1979--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Delaware River basin--Continued				
01461300	Wickecheoke Creek at Stockton, NJ	Lat 40°24'41", long 74°59'13", Hunterdon County, at bridge on State Route 29 at Stockton, and 900 ft (270 m) above mouth.	26.5 (68.9 km^2)	1944, 1958-64, 1979	4-12-79 7-12-79	31 3.7
01461900	Alexauken Creek near Lambertville, NJ	Lat 40°22'51", long 74°56'54", Hunterdon County, at bridge on State Route 29, 0.4 mi (0.6 km) upstream from mouth, and 1.1 mi (1.8 km) north of Lambertville.	14.9 (38.6 km^2)	1944, 1958-64, 1979	4-12-79 7-12-79	26 2.8
01467140	Cooper River at Lawnside, NJ	Lat 39°52'14", long 75°00'59", Camden County, at Lawnside, 300 ft (90 m) downstream of Lawnside Sewage Treatment Plant, and 0.2 mi (0.3 km) upstream of New Jersey Turnpike.	12.8 (32.9 km^2)	1964-72, 1979	3-22-79 6-13-79 8-16-79	26.9 32.8 18.8
01483010	Deep Run near Alloway, NJ	Lat 39°32'34", long 75°21'18", Salem County, at bridge on Telegraph Road, 0.8 mi (1.3 km) upstream from Elkinton Mill Pond, 1.3 mi (2.1 km) south of Alloway, and 2.5 mi (4.0 km) northwest of Pecks Corner.	5.30 (13.73 km^2)	1979	9-11-79	7.9

* Also a crest-stage partial-record station.
‡ Operated as a continuous-record gaging station.
a Occurred during period Aug. 7 to Sept. 21, 1979.
b Minimum recorded during year; computed from minimum gage reading and rating, discharge may have been lower at some time during year when gage was not operating.

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 floods 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 (feet)	Discharge (ft^3/s)
		Cohansey River basin					
01412500	West Branch Cohansey River at Seeley, NJ	Lat 39°29'06", long 75°15'33", Cumberland County, on right bank 15 ft (4.6 m) upstream from county bridge, Highway 31, at Seeley, 450 ft (137 m) upstream from mouth and 4.1 mi (6.6 km) northwest of Bridgeton. Datum of gage is 42.23 ft (12.872 m) National Geodetic Vertical Datum of 1929.	2.55 (6.60 km^2)	1952-67‡, 1968-79	2-26-79	3.70	160
		Delaware River basin					
*01445000	Pequest River at Huntsville, NJ	Lat 40°58'49", long 74°46'38", Sussex County, on right bank, 20 ft (6.1 km) upstream from highway bridge in Huntsville, and 0.4 mi (0.6 km) downstream from East Branch. Datum of gage is 553.81 ft (168.801 m) National Geodetic Vertical Datum of 1929.	31.4 (81.3 km^2)	1940-62‡, 1963-79	1-25-79	5.44	640
*01446000	Beaver Brook near Belvidere, NJ	Lat 40°50'40", long 75°02'48, Warren County, on right bank, 2,000 ft (610 m) upstream from mouth, and 2 mi (3 km) east of Belvidere. Datum of gage is 303.36 ft (92.464 m) National Geodetic Vertical Datum of 1929.	36.2 (93.8 km^2)	1922-61‡, 1963-79	1-25-79	5.43	1,350
01455200	Pohatcong Creek at New Village, NJ	Lat 40°42'57", long 75°04'20", Warren County, at bridge on Edison Road, 0.4 mi (0.6 km) southeast of New Village, and 4.3 mi (6.9 km) upstream from Merrill Creek. Datum of gage is 308.32 ft (93.976 m) National Geodetic Vertical Datum of 1929.	33.4 (86.5 km^2)	1960-69‡, 1972-79	1-25-79	8.10	3,570
01455500	Musconetcong River at outlet of Lake Hopatcong, NJ	Lat 40°55'00", long 74°39'55", Morris County, on left bank just upstream of highway bridge 300 ft (91 m) downstream from Lake Hopatcong Dam in Landing. Datum of gage is 904.99 ft (275.841 m) National Geodetic Vertical Datum of 1929.	25.6 (66.3 km^2)	1929-75‡, 1976-79	1-08-79	3.21	188
01456000	Musconetcong River at Hackettstown, NJ	Lat 40°53'10", long 74°48'00", Warren County, on right bank 75 ft (23 m) upstream from Saxton Falls Dam, 0.5 mi (0.8 km) upstream from Erie-Lackawanna Railway bridge, and 3.0 mi (4.8 km) northeast of Hackettstown. Datum of gage is 630.93 ft (192.307 m) National Geodetic Vertical Datum of 1929.	70.0 (181.3 km^2)	1921-73‡, 1974-79	1-25-79	3.79	2,000
01457500	Delaware River at Riegelsville, NJ	Lat 40°35'36", long 75°11'17", Warren County, at suspension bridge at Riegelsville, 600 ft (183 m) upstream from Musconetcong River (flow of which is included in the records for this station since Oct. 1, 1931). Datum of gage is 125.12 ft (38.137 m) National Geodetic Vertical Datum of 1929.	6,328 (16,390 km^2)	1906-71‡, 1972-79	1-25-79	20.93	106,000

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height	Discharge
		Delaware River basin--Continued					
01464400	Crosswicks Creek at New Egypt, NJ	Lat 40°04'03", long 74°31'57", Ocean County, at upstream side of bridge on State Route 528 in New Egypt, and 300 ft (91 m) downstream from Oakford Lake Dam. Datum of gage is 43.46 ft (13.247 m) National Geodetic Vertical Datum of 1929.	37.5 (97.1 km²)	1968-79	1-22-79	e24.6	1,650
01464515	Doctors Creek at Allentown, NJ	Lat 40°10'37", long 74°35'57", Monmouth County, at bridge on Breza Road in Allentown, and 0.8 mi (1.3 km) downstream from Conines Millpond dam. Datum of gage is National Geodetic Vertical Datum of 1929.	17.2 (44.6 km²)	1968-79	1-22-79	b57.78	†
01464520	Doctors Creek at Groveville, NJ	Lat 40°10'21", long 74°39'33", Mercer County, at bridge on Groveville-Allentown road at Groveville, 0.7 mi (1.1 km) southeast of Yardville, and 1.5 mi (2.4 km) upstream of mouth. Datum of gage is 14.23 ft (4.337 m) National Geodetic Vertical Datum of 1929.	25.3 (65.5 km²)	1968-79	1-22-79	b8.86	1,550
01464530	Blacks Creek at Mansfield Square, NJ	Lat 40°07'02", long 74°41'58", Burlington County, at bridge on Mansfield Square-Crosswicks Road, 0.4 mi (0.6 km) east of Mansfield Square, and 3.4 mi (5.5 km) upstream from mouth. Datum of gage is 12.44 ft (3.792 m) National Geodetic Vertical Datum of 1929.	d19.7 (51.0 km²)	1978-79	8-31-78 1-21-79	bc11.2 b11.02	c2,500 2,320
01464538	Crafts Creek at Columbus, NJ	Lat 40°04'44", long 74°43'07", Burlington County, at bridge on Columbus-Mansfield road, 0.4 mi (0.6 km) north of Columbus, and 6.0 mi (9.6 km) northeast of Mount Holly. Datum of gage is 33.71 ft (10.275 m) National Geodetic Vertical Datum of 1929.	5.38 (13.93 km²)	1978-79	8-31-78 1-21-79	bc9.1 b8.66	c550 467
01464582	Assiscunk Creek near Columbus, NJ	Lat 40°03'13", long 74°44'34", Burlington County, at bridge on Jacksonville Road, 1.7 mi (2.7 km) southwest of Columbus, 4.0 mi (6.4 km) northeast of Mount Holly, and 0.1 mi (0.2 km) downstream from Assiscunk Branch.	10.9 (28.2 km²)	1978-79	8-31-78 1-21-79	bc11.1 b7.31	1,480 490
01465850	South Branch Rancocas Creek at Vincentown, NJ	Lat 39°56'22", long 74°45'50", Burlington County, on left bank 150 ft (46 m) downstream from highway bridge on Lumberton-Vincentown road, 0.8 mi (1.3 km) west of Vincentown, 2.9 mi (4.7 km) southeast of Lumberton, and 3.1 mi (5.0 km) upstream from Southwest Branch. Datum of gage is 13.17 ft (4.014 m) National Geodetic Vertical Datum of 1929.	53.3 (138.0 km²)	1962-75‡, 1976-79	2-25-79	7.82	1,250
01465882	Southwest Branch Rancocas Creek at Medford, NJ	Lat 39°54'16", long 74°48'47", Burlington County, at bridge on State Route 70, 0.6 mi (1.0 km) northeast of Medford and 4.2 mi (6.8 km) upstrem from mouth. Datum of gage is 20.72 ft (6.315 m) National Geodetic Vertical Datum of 1929.	47.9 (124.1 km² Revised)	1975-79	1-21-79	b7.33	4,800

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height	Discharge
		Delaware River basin--Continued					
01467057	Pompeston Creek at Cinnaminson, NJ	Lat 40°00'11", long 74°59'00", Burlington County, at U.S. Route 130 bridge, 0.7 mi (1.1 km) northwest of Cinnaminson, 1.7 mi (2.7 km) upstream from mouth, and 2.1 mi (3.4 km) east of Palymra. Datum of gage is 11.36 ft (3.463 m) National Geodetic Vertical Datum of 1929.	5.75 (14.89 km²)	1975-79	1-21-79	b6.39	†
01467069	North Branch Pennsauken Creek near Moorestown, NJ	Lat 39°57'10", long 74°58'10", Burlington County, at bridge on Route 41 (Kings Highway) 1.7 mi (2.8 km) southwest of Moorestown. Datum of gage is 5.9 ft (1.80 m) National Geodetic Vertical Datum of 1929.	12.8 (33.2 km²)	1975-79	1-21-79	6.20	1,010
*01467130	Cooper River at Kirkwood, NJ	Lat 39°50'11", long 75°00'06", Camden County, 5 ft (1.5 m) upstream from dam at Kirkwood Lake in Kirkwood, and 1.0 mi (1.6 km) north of Laurel Springs. Datum of gage is 57.82 ft (17.624 m) National Geodetic Vertical Datum of 1929.	5.14 (13.3 km²)	1964-79	1-21-79	1.77	200
*01467160	North Branch Cooper River near Marlton, NJ	Lat 39°53'20", long 74°58'08", Camden County, at bridge on blacktop road to Springdale, 2.5 mi (4.0 km) west of Marlton. Datum of gage is 36.36 ft (11.083 m) National Geodetic Vertical Datum of 1929.	5.33 (13.80 km²)	1964-79	1-21-79	b3.99	285
*01467305	Newton Creek at Collingswood, NJ	Lat 39°54'30", long 75°03'13", Camden County, at bridge on Park Avenue in Collingswood, 0.3 mi (0.5 km) east of Cuthbert Avenue. Datum of gage is 18.74 ft (5.712 m) National Geodetic Vertical Datum of 1929.	1.32 (3.42 km²)	1964-79	8-12-79	3.26	152
01467317	South Branch Newton Creek at Haddon Heights, NJ	Lat 39°52'45", long 75°04'26", Camden County, at bridge on Haddon Heights Park in Haddon Heights, and 2.6 mi (4.2 km) south of Collingswood. Datum of gage is 23.34 ft (7.114 m) National Geodetic Vertical Datum of 1929.	.63 (1.63 km²)	1964-79	9-06-79	2.43	15
*01467330	South Branch Big Timber Creek at Blackwood, NJ	Lat 39°48'17", long 75°03'13", Camden County, at bridge on Lower Landing Roaod in Blackwood, and 3.0 mi (4.8 km) upstream from mouth. Datum of gage is 8.41 ft (2.563 m) National Geodetic Vertical Datum of 1929.	19.1 (49.5 km²)	1964-79	1-21-79	b4.99	620
01467351	North Branch Big Timber Creek at Laurel Road at Laurel Springs, NJ	Lat 39°49'07", long 75°00'56", Camden County, at bridge on Laurel Road in Laurel Springs, and 2.5 mi (4.0 km) upstream from confluence with the South Branch. Datum of gage is 26.89 ft (8.196 m) National Geodetic Vertical Datum of 1929.	7.16 (18.54 km²)	1976-79	1-21-79	1.93	†
01475000	Mantua Creek at Pitman, NJ	Lat 39°44'14", long 75°06'53", Gloucester County, on left abutment of Wadsworth Dam, 0.9 mi (1.4 km) east of Pitman, and 2.0 mi (3.2 km) upstream from Porch Branch. Datum of gage is 68.51 ft (20.882 m) National Geodetic Vertical Datum of 1929.	6.75 (17.48 km²)	1940-76‡, 1977-79	5-25-79	1.83	145

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height	Discharge
		Delaware River basin--Continued					
01475019	Mantua Creek at Salina, NJ	Lat 39°46'13", long 75°05'59", Gloucester County, at bridge on Salina-Sewell Road, 0.2 mi (0.3 km) downstream of Bees Branch, and 0.5 mi (0.8 km) west of Salina. Datum of gage is 11.67 ft (3.557 m) National Geodetic Vertical Datum of 1929.	14.2 (36.8 km^2)	1975-79	1-21-79	a6.3	5.50
01477110	Raccoon Creek at Mullica Hill, NJ	Lat 39°44'10", long 75°13'30", Gloucester County, at bridge State Routes 45 and 77 in Mullica Hill, 1,200 ft (370 m) downstream of Mullica Hill Pond and 5.5 mi (8.8 km) west of Pitman. Datum of gage is 21.91 ft (6.678 m) National Geodetic Vertical Datum of 1929.	15.6 (40.4 km^2)	1978-79	1-22-79	b3.43	†
01477480	Oldmans Creek near Harrisonville, NJ	Lat 39°41'40", long 75°18'38", Salem County, at bridge on Harrisonville Station Road, 2.4 mi (3.8 km) west of Harrisonville, and 2.8 mi (4.5 km) north of Woodstown. Datum of gage is 16.58 ft (5.054 m) National Geodetic Vertical Datum of 1929.	13.6 (35.2 km^2)	1975-79	1-21-79	5.98	600

* Also a low-flow partial-record station.
† Discharge not determined.
‡ Operated as a continuous-record gaging station.
a Estimated.
b Downstream side of bridge.
c Not previously published.
d Revised.
e Peak may have been higher on Feb. 25, 1979.

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 1979

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Delaware River basin				
01443440 Paulins Kill	Delaware River	Lat 40°06'20", long 74°45'19", Sussex County, at bridge in Balesville, 2.3 mi (3.7 km) upstream from Paulins Kill Lake, and 3.0 mi (4.8 km) north of Newton.	67.1 (173.8 km^2)	-	4-29-79 8-01-79	*162 *28
01444100 Paulins Kill	Delaware River	Lat 40°55'14", long 75°05'18", Warren County, at bridge on U.S. Route 46 at Columbia, 2.3 mi (3.7 km) southwest of Polkville, and 3.2 mi (5.2 km) southeast of Knowlton.	177 (458 km^2)	1978	12-14-78 7-31-79	300 *75
01446400 Pequest River	Delaware River	Lat 40°49'45", long 75°04'44", Warren County, at bridge on State Route 519, in Belvidere, 1,400 ft (430 m) upstream of mouth.	158 (409 km^2)	1950,53, 1955,74, 1977-78	10-17-78 12-06-78 4-19-79 6-27-79 7-31-79 8-14-79 9-28-79	*72 *125 369 *155 78 110 *131
01455801 Musconetcong River	Delaware River	Lat 40°55'10", long 74°44'07", Sussex County, at bridge at Lockwood 0.2 mi (0.3 km) downstream from Lubbers Run, and 1.5 mi (2.4 km) northwest of Stanhope.	60.5 (156.7 km^2)	-	4-19-79 8-01-79	*138 *31
01456200 Musconetcong River	Delaware River	Lat 40°48'48", long 74°50'32", Warren County, at bridge in Beatyestown, 2.1 mi (3.4 km) northeast of Stephensburg, and 3.0 mi (4.8 km) south of Hacketts-town.	90.7 (234.9 km^2)	-	5-25-79 7-31-79	508 *67
01457400 Musconetcong River	Delaware River	Lat 40°35'32", long 75°11'20", Warren County, at bridge on State Highway 13 at Riegels-ville, 0.2 mi (0.4 km) north of Mount Joy, and 0.2 mi (0.3 km) upstream from mouth.	156 (404 km^2)	1940-55, 1973, 1977-78	12-21-78 4-13-79 7-20-79	285 346 *186
01460880 Lockatong Creek	Delaware River	Lat 40°24'58", long 75°01'05", Hunterdon County, at bridge on Raven Rock-Rosemont Road, and 0.7 mi (1.1 km) upstream from mouth.	22.9 (59.3 km^2)	1978	8-22-78 4-12-79 7-03-79 7-12-79	b4.9 23 4.6 1.5
01462005 Swan Creek	Delaware River	Lat 40°21'51", long 74°56'41", Hunterdon County, at bridge in Lambertville, 250 ft (76 m) upstream from Delaware and Raritan Canal feeder, 350 ft (107 m) downstream from State Route 29, and 500 ft (150 m) upstream from mouth.	3.28 (8.50 km^2)	-	4-12-79 5-24-79 7-12-79	*3.4 42 *0.27
01463568 Assunpink Creek	Delaware River	Lat 40°13'05", long 74°33'08", Monmouth County, at bridge at Carsons Mills, 0.1 mi (0.2 km) upstream from New Sharon Branch, and 1.3 mi (2.1 km) northeast of Pages Corner.	12.5 (32.4 km^2)	-	3-29-79 5-07-79 5-24-79 8-07-79	*25 *13 56 *29
01463625 Assunpink Creek	Delaware River	Lat 40°16'06", long 74°42'07", Mercer County, at bridge on Basin Road, midway between U.S. Route 1 and Penn Central railroad tracks, 0.5 mi (0.8 km) southeast of Bakersville, and 1.4 mi (2.3 km) southeast of Franklin Corner.	38.6 (100.0 km^2)	1977-78	1-04-79 3-29-79 5-09-79 5-24-79	131 *67 *29 185
01464375 North Run	Crosswicks Creek	Lat 40°02'21", long 74°35'20", Burlington County, at bridge on McGuire AFB access Road, 1.6 mi (2.6 km) southwest of Cookstown and 2.7 mi (4.3 km) upstream from South Run.	4.66 (12.06 km^2)	-	a8-31-78	†1860

DISCHARGE MEASUREMENTS AT MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1979--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Delaware River basin--Continued				
01464405 Crosswicks Creek tributary No. 2	Crosswicks Creek	Lat 40°04'38", long 74°31'00", Ocean County, at bridge on Lakewood Road, 1 mi (1.6 km) northwest of New Egypt and 1.4 mi (2.3 km) upstream from mouth.	1.02 (2.64 km^2)	-	a8-31-79	†340
01465835 South Branch Rancocas Creek	Rancocas Creek	Lat 39°55'23", long 74°43'05", Burlington County, at bridge on light-duty Road, downstream from Friendship Creek, 0.5 mi (0.8 km) northwest of Retreat, and 2.0 mi (3.2 km) southwest of Vincentown.	44.4 (115.0 km^2)	-	3-28-79 5-22-79 5-24-79	*104 177 188
01465970 North Branch Rancocas Creek	Rancocas Creek	Lat 39°58'04", long 74°34'48", Burlington County, at bridge on Lakehurst Road in Browns Mills, at outflow of Mirror Lake, 5.0 mi (8.0 km) east of Pemberton.	19.5 50.5 km^2)	-	5-22-79	*75
01467120 Cooper River	Delaware River	Lat 39°49'43", long 74°58'55", Camden County, at bridge on Norcross Road in Lindenwold 50 ft (15 m) downstream from outflow of Linden Lake, 1.1 mi (1.8 km) southwest of Gibbsboro, and 3.7 mi (6.0 km) northeast of Berlin.	1.13 (2.93 km^2)	-	3-26-79 5-25-79 6-13-79 7-23-79	2.4 7.4 2.0 *0.89
01467329 South Branch Big Timber Creek	Delaware River	Lat 39°48'05", long 75°04'27", Gloucester County, at bridge on Blackwood-Clementon Road in Blackwood, at Blackwood Lake 3.5 mi (5.6 km) west of Lindenwold.	19.1 (49.5 km^2)	-	3-21-79 5-25-79 6-12-79 7-17-79	*35 222 92 206
01477510 Oldmans Creek	Delaware River	Lat 39°41'57", long 75°20'01", Salem County, at bridge on Kings Highway in Porches Mill, 1.0 mi (1.6 km) north of Seven Stars, and 3.1 mi (4.8 km) north of Woodstown.	21.0 (54.4 km^2)	-	5-25-79 6-06-79	232 *44

* Base flow.
a Not previously published.
b Incorrectly published at sta. 01460900 in state report for 1978.

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	Annual maximum Elevation NGVD* (feet)
01411395	Cape May Canal at North Cape May, NJ	Lat 38°58'02", long 74°57'25", Cape May County, on Cape May Canal on slip of Cape May, New Jersey to Lewes, Delaware, ferry, 0.5 mi (0.8 km) east of west end of Cape May Canal, and 0.8 mi (1.3 km) south of North Cape May.	1965-79	--	--
01411409	Delaware Bay at Reeds Beach, NJ	Lat 39°06'32", long 074°53'39", Cape May County, at boat ramp in Cooks Beach, 0.2 mi (0.3 km) south of Reeds Beach, 4.8 mi (7.7 km) northwest of Cape May Court House, and 5.8 mi (9.3 km) north of Villa.	1979	2-26-79	6.37
01412150	Maurice River at Bivalve, NJ	Lat 39°13'42", long 75°02'12", Cumberland County, on right bank on bulkhead piling on the south side of Bivalve, and 1.3 mi (2.1 km) south of Port Norris.	1965-79	4-04-73 12-09-73 12-04-74 9-26-76 2-26-79	a5.96 a6.61 a6.60 a6.36 a6.57
01413038	Cohansey River at Greenwich, NJ	Lat 39°23'02", long 075°20'58" Cumberland County, at Greenwich Pier, 0.7 mi (1.1 km) southwest of Greenwich, and 5.8 mi (9.3 km) southwest of Shiloh.	1979	2-26-79	5.89
01464040	Delaware River at Marine Terminal, Trenton, NJ	Lat 40°11'21", long 74°45'22", Mercer County, on left bank at downstream end of wharf at Marine Terminal, Trenton, 1.6 mi (2.6 km) downstream from toll bridge on U.S. Highway 1, 2.0 mi (3.2 km) downstream from Assunpink Creek, and at channel mile 131.80 (212.07 km).	1921-46‡, 1951-54‡, 1957-79‡	--	--
01477050	Delaware River at Chester, PA	Lat 39°50'12", long 75°22'00", Delaware County, Hydrologic Unit 02040202, at end of Reynolds Aluminum Company pier 0.5 mi (0.8 km) downstream from Chester Creek, and at channel mile 82.30 (132.42 km).	1972-77‡, 1979	2-26-79	7.53
01482705	Delaware River at Oakwood Beach, NJ	Lat 39°33'18", long 75°31'11", Salem County, on left bank on bulkhead piling at Oakwood Beach, 1.3 mi (2.1 km) south of mouth of Salem River, 2.4 mi (3.9 km) east of Reedy Point, Delaware, and 3.0 mi (4.8 km) southwest of Salem.	1965-79	7-29-65 10-07-65 5-24-67 6-13-68 7-01-69 11-10-69 12-13-70 2-19-72 2-04-73 12-09-73 12-02-74 a10-20-75 10-09-76 12-21-77 2-26-79	d5.33 d6.51 d6.25 d6.18 d5.76 d5.92 d5.73 d6.01 d6.65 d6.41 d6.54 ad5.81 d6.18 d5.96 6.90

-- Unavailable at time of publication
* National Geodetic Vertical Datum of 1929 (NGVD).
‡ Operated as a continuous-record gaging station.
a Revised.
b Gage datum; not National Geodetic Vertical Datum of 1929 datum.
c Furnished by National Ocean Survey.
d Adjusted to National Geodetic Vertical Datum of 1929.

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01411880 - MAURICE R AT SHARP ST AT MILLVILLE NJ (LAT 39 24 01 LONG 075 03 15)				
OCT , 1978				
12...	1130	--	3	--
01412000 - MENANTICO C NR MILLVILLE NJ (LAT 39 25 12 LONG 074 58 00)				
OCT , 1978				
24...	1400	20	3	.16
NOV				
24...	1610	24	4	.26
JAN , 1979				
19...	1220	37	3	.30
FEB				
26...	1530	449	15	18
MAR				
09...	0940	150	15	6.1
MAY				
03...	1050	46	24	3.0
JUN				
06...	0915	106	5	1.4
JUL				
19...	0915	61	65	11
SEP				
14...	1220	33	8	.71
01412800 - COHANSEY R AT SEELEY NJ (LAT 39 28 21 LONG 075 15 21)				
FEB , 1979				
14...	1045	28	57	4.3
26...	1810	532	137	197
APR				
05...	1030	47	9	1.1
MAY				
22...	1145	40	5	.54
JUL				
09...	1100	30	8	.65
25...	1100	36	6	.58
26...	0905	33	21	1.9
AUG				
09...	1100	26	8	.56
30...	1030	E50	5	--
SEP				
27...	1330	32	44	3.8
28...	1125	31	4	.33
01413015 - COHANSEY R AT BRIDGETON NJ (LAT 39 25 54 LONG 075 14 11.01)				
FEB , 1979				
14...	1215	--	11	--
APR				
05...	1240	--	25	--
JUN				
11...	1030	--	43	--
JUL				
09...	1245	--	58	--
AUG				
09...	1245	--	42	--

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01438500 - DELAWARE R AT MONTAGUE NJ (LAT 41 18 30 LONG 074 47 50)				
OCT , 1978				
16...	1510	2890	1	7.8
DEC				
11...	1255	6800	11	202
01439830 - BIG FLAT BK AT TUTTLES CORNER NJ (LAT 41 12 00 LONG 074 48 56)				
JAN , 1979				
30...	1115	115	2	.62
MAR				
29...	1115	85	11	2.5
MAY				
23...	1050	41	4	.44
AUG				
28...	0930	--	3	--
01440000 - FLAT BK NR FLATBROOKVILLE NJ (LAT 41 06 24 LONG 074 57 09)				
OCT , 1978				
03...	1330	14	1	.04
05...	1630	18	1	.05
NOV				
02...	1040	15	1	.04
DEC				
07...	1125	51	1	.14
JUN , 1979				
26...	1720	46	12	1.5
AUG				
17...	1310	27	2	.15
01440200 - DELAWARE R NR DELAWARE WATER GAP, PA. (LAT 41 00 42 LONG 075 05 09)				
OCT , 1978				
19...	1420	1970	2	11
27...	1500	2000	3	16
APR , 1979				
17...	1625	14600	3	118
JUL				
10...	1730	1750	2	9.4
SEP				
12...	1300	3620	4	39
01443000 - DELAWARE R AT PORTLAND PA (LAT 40 55 30 LONG 075 05 55)				
OCT , 1978				
03...	1100	--	2	--
MAR , 1979				
05...	1100	--	21	--
APR				
30...	1030	--	16	--
JUN				
04...	1015	--	23	--
01443440 - PAULINS KILL AT BALESVILLE NJ (LAT 41 06 20 LONG 074 45 19.01)				
JAN , 1979				
30...	1310	--	11	--
MAR				
29...	1310	--	4	--
MAY				
23...	1250	92	10	2.5

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01443500 - PAULINS KILL AT BLAIRSTOWN NJ (LAT 40 58 44 LONG 074 57 15)				
OCT , 1978				
03...	1100	32	2	.17
05...	1350	52	3	.42
NOV				
02...	1515	50	1	.13
DEC				
14...	1445	E171	4	1.8
FEB , 1979				
27...	1100	E700	28	53
MAR				
30...	1630	297	4	3.2
APR				
24...	1030	219	5	3.0
MAY				
24...	0930	E400	78	84
JUN				
21...	1715	130	17	6.0
AUG				
15...	1240	92	4	.99
01443900 - YARDS C NR BLAIRSTOWN NJ (LAT 40 58 51 LONG 075 02 25)				
OCT , 1978				
05...	1030	1.1	3	.01
NOV				
03...	1110	1.3	1	.00
DEC				
14...	1210	8.6	1	.02
APR , 1979				
03...	1415	91	30	7.4
JUN				
21...	1330	1.5	15	.06
01444100 - PAULINS KILL AT MOUTH AT COLUMBIA NJ (LAT 40 55 14 LONG 075 05 18)				
OCT , 1978				
02...	1330	--	3	--
FEB , 1979				
27...	1300	1440	28	109
APR				
24...	1150	1070	5	14
MAY				
24...	1145	710	29	56
01444800 - DELAWARE R NR RICHMOND PA (BELVIDERE NJ) (LAT 40 49 44 LONG 075 05 06)				
OCT , 1978				
03...	1315	2020	2	11
MAR , 1979				
05...	1315	15200	22	903
APR				
30...	1245	15500	13	544
JUN				
04...	1230	13100	21	743
01445430 - PEQUEST RIVER AT TOWNSBURY, NJ (LAT 40 51 06 LONG 074 56 02)				
NOV , 1978				
03...	1425	25	3	.20
DEC				
13...	1630	120	9	2.9
MAR , 1979				
30...	1225	174	19	8.9
JUN				
15...	1715	196	66	35
AUG				
07...	1900	29	5	.39
SEP				
06...	1130	405	734	803

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01445500 - PEQUEST R AT PEQUEST NJ (LAT 40 49 43 LONG 074 58 45)				
NOV , 1978				
07...	1600	51	1	.14
DEC				
07...	1640	74	2	.40
MAR , 1979				
29...	1750	277	22	16
JUN				
15...	1330	241	73	48
AUG				
07...	1330	48	5	.65
01446000 - BEAVER BK NR BELVIDERE NJ (LAT 40 50 40 LONG 075 02 48)				
JAN , 1979				
18...	1100	90	8	1.9
MAR				
26...	1030	112	7	2.1
MAY				
15...	1000	57	7	1.1
AUG				
09...	1015	--	3	--
01446400 - PEQUEST R AT BELVIDERE NJ (LAT 40 49 45 LONG 075 04 44)				
OCT , 1978				
02...	1030	--	4	--
JAN , 1979				
18...	1300	355	73	70
MAR				
26...	1250	--	158	--
MAY				
15...	1130	--	36	--
AUG				
09...	1115	--	8	--
01446500 - DELAWARE R AT BELVIDERE NJ (LAT 40 49 36 LONG 075 05 02)				
OCT , 1978				
17...	0900	3070	1	8.3
26...	1350	2120	115	658
DEC				
06...	1415	3590	2	19
01447000 - DELAWARE R AT NORTHAMPTON ST AT EASTON PA (LAT 40 41 30 LONG 075 12 15)				
OCT , 1978				
04...	1100	--	3	--
MAR , 1979				
06...	1015	--	230	--
MAY				
01...	1000	--	10	--
JUN				
05...	1010	--	46	--
14...	1315	--	46	--
01455100 - LOPATCONG C AT PHILLIPSBURG NJ (LAT 40 40 38 LONG 075 10 13)				
JAN , 1979				
24...	1215	--	2680	--
MAR				
20...	1150	--	5	--
MAY				
16...	1130	--	8	--
24...	1610	--	57	--
AUG				
07...	1145	--	29	--
SEP				
26...	1300	--	2	--

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01455160 - BRASS CASTLE C NR WASHINGTON NJ (LAT 40 45 55 LONG 075 01 07)				
OCT , 1978				
25...	1245	.30	1	.00
DEC				
20...	1310	.85	1	.00
MAR , 1979				
28...	1730	3.9	2	.02
01455200 - POHATCONG C AT NEW VILLAGE NJ (LAT 40 42 57 LONG 075 04 20)				
JAN , 1979				
24...	1030	155	40	17
MAR				
20...	1015	54	6	.87
MAY				
16...	0950	35	9	.85
AUG				
07...	1015	17	11	.50
SEP				
26...	1000	25	27	1.8
01455300 - POHATCONG C AT CARPENTERSVILLE NJ (LAT 40 37 30 LONG 075 11 10)				
JAN , 1979				
24...	1350	--	1210	--
MAR				
20...	1330	--	8	--
MAY				
16...	1300	--	6	--
AUG				
07...	1315	--	19	--
01455500 - MUSCONETCONG R AT OUT OF LAKE HOPATCONG NJ (LAT 40 55 00 LONG 074 39 55)				
JAN , 1979				
23...	1030	--	2	--
MAR				
27...	1030	--	1	--
MAY				
24...	1000	--	5	--
01455801 - MUSCONETCONG R AT LOCKWOOD NJ (LAT 40 55 10 LONG 074 44 07)				
JAN , 1979				
23...	1210	--	5	--
MAR				
27...	1145	--	6	--
MAY				
24...	1145	--	33	--
01456200 - MUSCONETCONG R AT BEATTYSTOWN (LAT 40 48 48 LONG 074 50 32)				
JAN , 1979				
23...	1345	--	51	--
MAR				
27...	1320	--	8	--
MAY				
24...	1310	--	228	--

ANALYSES OF SAMPLES COLLECTED AT SEDIMENT PARTIAL-RECORD STATIONS--Continued

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01457000 - MUSCONETCONG R NR BLOOMSBURY NJ (LAT 40 40 20 LONG 075 03 40)				
OCT , 1978				
25...	1540	87	3	.70
DEC				
20...	1630	214	6	3.5
MAR , 1979				
28...	1245	323	14	12
JUN				
14...	1315	375	46	47
AUG				
03...	1130	103	5	1.4
01457400 - MUSCONETCONG R AT RIEGELSVILLE NJ (LAT 40 35 32 LONG 075 11 20)				
FEB , 1979				
28...	1010	--	45	--
APR				
16...	1015	--	55	--
MAY				
29...	1010	--	62	--
JUL				
25...	1030	--	29	--
01457500 - DELAWARE R AT RIEGELSVILLE NJ (LAT 40 35 36 LONG 075 11 17)				
OCT , 1978				
04...	1300	--	4	--
01458100 - HAKIHOKAKE C AT MILFORD NJ (LAT 40 34 06 LONG 075 05 44)				
FEB , 1979				
28...	1145	--	9	--
APR				
16...	1155	--	3	--
MAY				
29...	1230	--	11	--
JUL				
25...	1230	--	2	--
01458400 - HARIHOKAKE C NR FRENCHTOWN NJ (LAT 40 32 53 LONG 075 04 09)				
FEB , 1979				
28...	1340	--	17	--
APR				
16...	1330	--	2	--
MAY				
29...	1345	--	5	--
JUL				
25...	1330	--	6	--
01458500 - DELAWARE R AT FRENCHTOWN NJ (LAT 40 31 34 LONG 075 03 55)				
OCT , 1978				
02...	1000	--	6	--
MAR , 1979				
06...	1300	--	312	--
MAY				
01...	1245	--	7	--
JUN				
05...	1250	--	26	--

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01460500 - DELAWARE AND RARITAN CA AT KINGSTON NJ (LAT 40 22 24 LONG 074 37 08)				
MAR , 1979				
30...	1330	110	13	3.9
MAY				
30...	1330	84	16	3.6
SEP				
26...	1345	85	19	4.4
01460880 - LOCKATONG C AT RAVEN ROCK NJ (LAT 40 24 58 LONG 075 01 05.01)				
MAR , 1979				
01...	0950	--	17	--
APR				
26...	0915	--	12	--
JUN				
07...	0940	--	1	--
SEP				
27...	0945	--	4	--
01461000 - DELAWARE R AT LUMBERVILLE PA (LAT 40 24 27 LONG 075 02 16)				
OCT , 1978				
02...	1310	--	6	--
MAR , 1979				
07...	0945	--	287	--
MAY				
02...	0915	--	11	--
JUN				
06...	0930	--	21	--
01461300 - WICKECHEOKE C AT STOCKTON NJ (LAT 40 24 41 LONG 074 59 13)				
OCT , 1978				
05...	1415	--	3	--
MAR , 1979				
01...	1110	--	9	--
APR				
26...	1020	--	4	--
JUN				
07...	1100	--	7	--
SEP				
27...	1145	--	2	--
01461900 - ALEXAUKEN C NR LAMBERTVILLE NJ (LAT 40 22 51 LONG 074 56 54)				
MAR , 1979				
01...	1250	--	23	--
APR				
26...	1130	--	1	--
JUN				
07...	1300	--	4	--
SEP				
27...	1345	--	6	--
27...	1500	--	3	--
01462000 - DELAWARE R AT LAMBERTVILLE NJ (LAT 40 21 53 LONG 074 56 57)				
OCT , 1978				
05...	1300	--	7	--
MAR , 1979				
07...	1130	--	330	--
MAY				
02...	1115	--	11	--
JUN				
06...	1130	--	23	--

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01462005 - SWAN CK AT LAMBERTVILLE NJ (LAT 40 21 51 LONG 074 56 41)				
APR , 1979				
26...	1300	--	7	--
MAY				
24...	1115	--	20	--
JUN				
07...	1410	--	5	--
01462500 - DELAWARE R AT WASHINGTON CROSSING NJ (LAT 40 17 20 LONG 074 52 08)				
MAR , 1979				
07...	1345	--	276	--
MAY				
02...	1345	--	10	--
JUN				
06...	1345	--	19	--
01463568 - ASSUNPINK C AT CARSONS MILLS NJ (LAT 40 13 05 LONG 074 33 38)				
FEB , 1979				
08...	1030	--	13	--
MAR				
29...	0900	25	181	12
MAY				
07...	1430	13	30	1.1
24...	1220	56	14	2.1
JUN				
13...	1345	--	4	--
JUL				
17...	1130	--	81	--
AUG				
07...	1130	29	12	.94
SEP				
19...	1315	--	14	--
01463610 - ASSUNPINK C AT EDINBURG NJ (LAT 40 15 28 LONG 074 37 05)				
AUG , 1979				
09...	1130	--	8	--
01463620 - ASSUNPINK C NR CLARKSVILLE NJ (LAT 40 16 11 LONG 074 40 20)				
OCT , 1978				
17...	1350	25	9	.61
NOV				
12...	1200	18	6	.29
DEC				
19...	1215	56	21	3.2
JAN , 1979				
23...	1115	216	90	52
MAR				
29...	1220	59	28	4.5
MAY				
09...	1535	30	8	.65
JUN				
13...	1000	92	11	2.7
25...	1415	38	20	2.1
JUL				
30...	1100	9.5	34	.87
AUG				
14...	1100	70	17	3.2
30...	1510	41	15	1.7
SEP				
19...	0915	56	18	2.7

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01463625 - ASSUNPINK C AT BAKERSVILLE NJ (LAT 40 16 06 LONG 074 42 07)				
MAY , 1979				
09...	1125	29	10	.78
24...	1015	185	45	22
01464000 - ASSUNPINK C AT TRENTON NJ (LAT 40 13 27 LONG 074 44 58)				
OCT , 1978				
03...	1120	82	12	2.7
04...	0900	66	13	2.3
APR , 1979				
24...	1230	116	16	5.0
MAY				
07...	1140	95	12	3.1
JUN				
25...	1030	81	85	19
AUG				
10...	1100	111	22	6.6
01464500 - CROSSWICKS C AT EXTONVILLE (LAT 40 08 15 LONG 074 36 02)				
OCT , 1978				
04...	1245	70	23	4.3
10...	1215	68	3	.55
NOV				
20...	1240	92	10	2.5
JAN , 1979				
18...	1115	144	7	2.7
APR				
04...	0900	155	17	7.1
MAY				
15...	1625	152	35	14
JUN				
11...	1000	101	39	11
JUL				
24...	1245	99	100	27
AUG				
06...	1330	205	134	74
10...	0845	68	10	1.8
23...	1245	70	16	3.0
30...	1320	108	32	9.3
SEP				
20...	1115	68	14	2.6
01464505 - CROSSWICKS C AT GROVEVILLE NJ (LAT 40 10 26 LONG 074 40 48)				
OCT , 1978				
04...	1500	--	38	--
FEB , 1979				
08...	1100	--	1	--
MAR				
22...	0930	--	25	--
JUN				
07...	0930	--	30	--
JUL				
17...	1445	--	43	--
01464515 - DOCTORS C AT ALLENTOWN NJ (LAT 40 10 37 LONG 074 35 57)				
FEB , 1979				
08...	1330	--	8	--
MAR				
23...	0845	--	7	--
JUN				
11...	1300	--	35	--
JUL				
17...	1300	--	20	--
AUG				
07...	1415	--	11	--
SEP				
20...	0845	--	6	--

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01464520 - DOCTORS C AT GROVEVILLE NJ (LAT 40 10 21 LONG 074 39 33)				
AUG , 1979				
09...	1440	--	7	--
01464522 - DOCTORS C AT RT 130 AT YARDVILLE NJ (LAT 40 10 31 LONG 074 40 33)				
OCT , 1978				
06...	0915	--	86	--
FEB , 1979				
08...	1230	--	13	--
MAR				
22...	1145	--	6	--
JUN				
07...	1245	--	20	--
JUL				
18...	0900	--	22	--
AUG				
06...	1015	--	27	--
SEP				
20...	1500	--	6	--
01464530 - BLACKS C AT MANSFIELD SQUARE NJ (LAT 40 07 02 LONG 074 41 58)				
FEB , 1979				
26...	1720	535	254	367
JUN				
27...	1500	29	68	5.3
AUG				
14...	1430	22	10	.59
01464531 - BLACKS CK AT BORDENTOWN NJ (LAT 40 08 14 LONG 074 42 42)				
OCT , 1978				
02...	1415	--	13	--
FEB , 1979				
20...	1315	--	10	--
MAR				
26...	1120	--	16	--
JUN				
06...	1400	--	59	--
JUL				
18...	1030	--	32	--
AUG				
08...	1300	--	13	--
01464538 - CRAFTS C AT COLUMBUS NJ (LAT 40 04 44 LONG 074 43 07)				
FEB , 1979				
26...	1525	135	79	29
JUL				
03...	1005	1.9	83	.43
AUG				
15...	1535	3.4	5	.05
01464540 - CRAFTS C AT HEDDING NJ (LAT 40 06 01 LONG 074 45 23)				
JAN , 1979				
31...	1045	--	11	--
MAR				
27...	0830	--	10	--
JUN				
05...	1300	--	18	--
JUL				
18...	1215	--	20	--

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01464580 - ASSISCUNK C AT COLUMBUS NJ (LAT 40 03 25 LONG 074 43 27)				
FEB , 1979				
06...	1400	--	26	--
MAR				
26...	0920	--	13	--
JUN				
06...	1030	--	24	--
JUL				
19...	1445	--	17	--
AUG				
17...	1000	--	12	--
01464582 - ASSISCUNK C NR COLUMBUS NJ (LAT 40 03 13 LONG 074 44 34)				
FEB , 1979				
26...	1325	370	56	56
JUL				
03...	1510	4.4	63	.75
AUG				
15...	1100	9.4	14	.36
01464590 - ASSISCUNK C NR BURLINGTON NJ (LAT 40 04 19 LONG 074 47 57)				
OCT , 1978				
04...	0930	--	6	--
FEB , 1979				
06...	1030	--	6	--
MAR				
27...	1245	--	27	--
JUN				
19...	1330	--	23	--
JUL				
18...	1330	--	45	--
AUG				
17...	0800	--	7	--
01465835 - SB RANCOCAS C AT RETREAT (LAT 39 55 23 LONG 074 43 05)				
JAN , 1979				
31...	1205	--	1	--
MAR				
28...	1030	--	13	--
MAY				
22...	1605	177	26	12
24...	1520	188	29	15
JUN				
14...	1300	--	4	--
JUL				
19...	1100	--	15	--
AUG				
30...	1330	--	9	--
01465850 - SB RANCOCAS C AT VINCENTOWN NJ (LAT 39 56 22 LONG 074 45 50)				
JAN , 1979				
31...	1005	168	1	.45
MAR				
28...	0845	126	5	1.7
MAY				
29...	1120	142	11	4.2
JUN				
14...	1000	126	7	2.4
JUL				
19...	1245	82	28	6.2
AUG				
30...	0915	490	25	33
SEP				
26...	0900	82	12	2.7

ANALYSES OF SAMPLES COLLECTED AT SEDIMENT PARTIAL-RECORD STATIONS--Continued

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01465882 - SWB RANCOCAS C AT RT 70 AT MEDFORD NJ (LAT 39 54 16 LONG 074 48 47)				
FEB , 1979				
27...	1445	205	25	14
01465900 - SWB RANCOCAS C AT EAYRESTOWN NJ (LAT 39 56 49 LONG 074 47 58)				
OCT , 1978				
04...	1230	--	9	--
01465970 - NB RANCOCAS C AT BROWNS MILLS NJ (LAT 39 58 04 LONG 074 34 48)				
FEB , 1979				
15...	1445	--	2	--
MAR				
28...	1330	--	55	--
JUN				
18...	1300	--	5	--
JUL				
19...	0915	--	8	--
AUG				
30...	1445	--	8	--
01467000 - NB RANCOCAS C AT PEMBERTON NJ (LAT 39 58 10 LONG 074 41 05)				
OCT , 1978				
05...	1300	118	7	2.2
18...	1300	90	9	2.2
FEB , 1979				
15...	1030	196	3	1.6
APR				
03...	1055	236	69	44
JUN				
18...	1000	307	9	7.5
JUL				
26...	1200	155	18	7.5
AUG				
30...	1000	363	13	13
01467006 - NB RANCOCAS C AT PINE ST AT MT HOLLY NJ (LAT 39 59 22 LONG 074 47 06)				
OCT , 1978				
05...	0900	--	8	--
01467069 - NB PENNSAUKEN C NR MOORESTOWN NJ (LAT 39 57 07 LONG 074 58 10)				
OCT , 1978				
04...	0915	4.4	19	.23
FEB , 1979				
14...	1300	15	12	.49
MAR				
30...	0930	19	21	1.1
JUN				
19...	1030	8.7	15	.35
26...	1015	6.0	42	.68
JUL				
30...	1415	4.4	1	.02
AUG				
28...	0900	4.4	15	.18

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01467081 - SB PENNSAUKEN C AT CHERRY HILL NJ (LAT 39 56 30 LONG 075 00 05)				
OCT , 1978				
04...	1040	E10	11	--
17...	1750	E14	19	--
JAN , 1979				
12...	1335	13	16	.56
FEB				
20...	1000	17	15	.69
MAR				
08...	1315	23	27	1.7
27...	1300	16	19	.82
APR				
24...	1700	16	19	.82
JUN				
07...	1215	15	21	.85
JUL				
05...	1200	9.3	53	1.3
AUG				
20...	1130	7.9	12	.26
01467120 - COOPER R AT NORCROSS RD AT LINDENWOLD NJ (LAT 39 49 43 LONG 074 58 55)				
FEB , 1979				
14...	1015	--	2	--
MAR				
26...	1000	2.4	6	.04
MAY				
25...	1440	7.4	2720	54
JUN				
13...	0900	2.0	4	.02
JUL				
23...	1000	.89	--	--
AUG				
14...	1045	--	3	--
SEP				
26...	1015	--	3	--
01467130 - COOPER R AT KIRKWOOD NJ (LAT 39 50 11 LONG 075 00 06)				
OCT , 1978				
05...	0930	--	29	--
FEB , 1979				
13...	1300	--	8	--
MAR				
22...	0945	--	17	--
JUN				
11...	1315	--	14	--
AUG				
14...	1245	--	14	--
SEP				
26...	1215	--	19	--
01467140 - COOPER R AT LAWNSIDE NJ (LAT 39 52 14 LONG 075 00 59)				
OCT , 1978				
05...	1130	10	25	.67
FEB , 1979				
13...	1000	30	26	2.1
MAR				
22...	1230	27	34	2.5
MAY				
25...	1240	175	101	48
JUN				
13...	1200	29	26	2.0
JUL				
19...	1115	41	97	11
AUG				
16...	1300	19	14	.72

ANALYSES OF SAMPLES COLLECTED AT SEDIMENT PARTIAL-RECORD STATIONS--Continued

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01467150 - COOPER R AT HADDONFIELD NJ (LAT 39 54 11 LONG 075 01 19)				
OCT , 1978				
12...	0920	19	29	1.5
17...	1305	33	32	2.9
DEC				
01...	1705	27	26	1.9
JAN , 1979				
17...	1520	33	22	2.0
APR				
03...	1035	36	30	2.9
JUN				
19...	1105	28	20	1.5
01467181 - NB COOPER R AT ERLTON NJ (LAT 39 54 31 LONG 075 01 32)				
OCT , 1978				
04...	1210	--	13	--
01467190 - COOPER R AT CAMDEN NJ (LAT 39 55 35 LONG 075 05 03)				
OCT , 1978				
12...	1120	--	27	--
FEB , 1979				
27...	1145	--	60	--
MAR				
27...	0900	--	90	--
JUN				
11...	1015	--	16	--
AUG				
29...	1030	--	22	--
01467329 - SB BIG TIMBER C AT BLACKWOOD TERRACE NJ (LAT 39 48 05 LONG 075 04 27)				
FEB , 1979				
15...	1000	34	5	.46
MAR				
21...	1015	34	19	1.7
MAY				
25...	1630	197	43	23
JUN				
12...	0930	99	10	2.7
JUL				
17...	1130	204	220	121
AUG				
22...	0900	38	19	1.9
01467359 - NB BIG TIMBER C AT GLENDORA NJ (LAT 39 50 04 LONG 075 04 02)				
OCT , 1978				
10...	0930	--	10	--
FEB , 1979				
15...	1230	--	36	--
MAR				
21...	1230	--	61	--
JUN				
12...	1300	--	25	--
AUG				
22...	1045	--	45	--
01467369 - ALMONESSON C AT RUNNEMEDE NJ (LAT 39 50 44 LONG 075 05 43)				
OCT , 1978				
10...	1110	--	19	--

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01475000 - MANTUA C AT PITMAN NJ (LAT 39 44 14 LONG 075 06 53)				
FEB , 1979				
14...	0915	12	3	.10
MAR				
20...	0900	13	5	.18
JUN				
14...	0900	14	2	.08
JUL				
16...	0945	8.8	2	.05
AUG				
15...	1215	11	14	.42
SEP				
25...	1015	11	4	.12
01475045 - MANTUA C AT MANTUA NJ (LAT 39 47 42 LONG 075 10 21)				
OCT , 1978				
10...	1330	--	14	--
FEB , 1979				
14...	1245	--	7	--
AUG				
15...	1400	--	29	--
SEP				
25...	1230	--	22	--
01477100 - RACCOON C NR MULLICA HILL NJ (LAT 39 42 31 LONG 075 12 05)				
OCT , 1978				
03...	1055	--	1	--
FEB , 1979				
13...	1000	--	26	--
MAR				
19...	1230	--	15	--
JUN				
04...	1000	--	1	--
AUG				
21...	1130	--	8	--
SEP				
27...	1145	--	1	--
01477120 - RACCOON C NR SWEDESBORO NJ (LAT 39 44 28 LONG 075 15 33)				
NOV , 1978				
29...	1545	29	6	.47
FEB , 1979				
13...	1245	43	24	2.8
MAR				
29...	1245	45	13	1.6
JUN				
04...	1300	93	32	8.0
AUG				
28...	1215	43	35	4.1
01477510 - OLDMANS C AT PORCHES MILL NJ (LAT 39 41 57 LONG 075 20 01)				
OCT , 1978				
03...	1235	--	5	--
FEB , 1979				
12...	1215	--	20	--
MAR				
19...	0915	--	28	--
MAY				
25...	1600	232	36	23
JUN				
06...	1145	44	8	.95
JUL				
10...	1015	--	48	--
AUG				
21...	0930	--	8	--

ANALYSES OF SAMPLES COLLECTED AT SEDIMENT PARTIAL-RECORD STATIONS--Continued

SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
01482500 - SALEM R AT WOODSTOWN NJ (LAT 39 38 36 LONG 075 19 52)				
OCT , 1978				
11...	0945	11	12	.36
20...	1310	13	15	.53
NOV				
30...	1245	38	5	.51
JAN , 1979				
24...	1250	41	30	3.3
FEB				
12...	1000	13	8	.31
MAR				
09...	1535	29	86	6.7
28...	1045	18	29	1.4
JUN				
05...	1245	41	26	2.9
JUL				
09...	1215	9.6	87	2.3
AUG				
09...	1130	11	23	.68
SEP				
27...	0900	18	23	1.1
01482537 - SALEM R AT COURSES LANDING NJ (LAT 39 39 38 LONG 075 24 34)				
OCT , 1978				
11...	1200	--	55	--

BURLINGTON COUNTY

395150074284201. Local I.D., Lebanon State Forest 23-D Obs. Unique Well Number, 05-0689.
LOCATION.--Lat 39°51'52", long 74°28'48", Hydrologic Unit 02040202, in Lebanon State Forest, in Woodland Township.
AQUIFER.--Pleistocene-Cohansey Sand undifferentiated.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in (203 mm), depth 33 ft (10.06 m), with no screen.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 152.0 ft (46.3 m) National Geodetic Vertical Datum of 1929.
Measuring point: Top of 8 inch casing, 0.7 ft (0.21 m) above land-surface datum.
PERIOD OF RECORD.--September 1955 to April 1975, current year beginning January 15. Records prior to the current year are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.09 ft (4.599 m) below land-surface datum, Sept. 11, 1958; lowest water level, 26.52 ft (8.083 m) below land-surface datum, Feb. 19-20, 1966.
EXTREMES FOR CURRENT YEAR.--Highest water level, 15.98 ft (4.871 m) below land-surface datum, June 23; lowest water level, 21.41 ft (6.526 m) below land-surface datum, Jan. 15.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5				---	19.29	18.25	16.75	17.09	16.49	16.22	16.99	17.86
10				---	19.16	17.87	16.81	17.15	16.41	16.33	17.13	17.62
15				---	19.10	17.29	16.78	17.23	16.13	16.44	17.29	17.48
20				20.96	19.15	16.99	16.93	17.28	16.07	16.57	17.42	17.55
25				20.60	19.12	16.83	16.98	16.71	16.07	16.69	17.55	17.68
EOM				19.66	19.05	16.78	17.03	16.55	16.08	16.86	17.72	17.78
MEAN				20.60	19.19	17.46	16.87	17.03	16.23	16.47	17.31	17.66

WTR YR 1979 MEAN 17.46 HIGH 15.99 JUN 23 LOW 21.15 JAN 16

BURLINGTON COUNTY

395524074502501. Local I.D., Medford 1 Obs. Unique Well Number, 05-0258.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 410 ft (125.0 m), screened 400 to 410 ft (121.9 to 125.0 m).
INSTRUMENTATION.--Water-level extremes recorder. October 1963 to August 1975, water-level recorder.
DATUM.--Land-surface datum is 70.8 ft (21.58 m) National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing 2.87 ft (0.875 m) above land-surface datum.
PERIOD OF RECORD.--October 1963 to August 1975, February 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, 85.22 ft (25.975 m) below land-surface datum, Feb. 16, 19, 1964; lowest water level, 127.96 ft (39.002 m) below land-surface datum, between July 14 and Sept. 28, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 120.10 ft (36.606 m) below land-surface datum, between Jan. 12 and Mar. 5; lowest water level, 125.46 ft (38.240 m) below land-surface datum, between June 22 and Aug. 16.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 4	118.21	MAY 13	119.70	JUL 14	126.17	SEP 28	124.10

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 4	122.71	JAN 5	120.82	MAR 30	119.57	MAY 26	120.33	JUL 17	123.85	SEP 21	123.60

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 6	122.61	JAN 12	121.14	MAR 5	120.54	APR 19	120.72	JUN 22	122.99	AUG 16	124.75

BURLINGTON COUNTY

395524074502502. Local I.D., Medford 2 Obs. Unique Well Number, 05-0259.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englisntown Sand of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 263 ft (80.2 m), screened 253 to 263 ft (77.1 to 80.2 m).
INSTRUMENTATION.--Water-level extremes recorder. October 1963 to August 1975, water-level recorder.
DATUM.--Land-surface datum is 72.9 ft (22.22 m) National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing 3.40 ft (1.036 m) above land-surface datum.
PERIOD OF RECORD.--October 1963 to August 1975, February 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, 45.42 ft (13.844 m) below land-surface datum, April 27, 1973; lowest water level, 111.96 ft (34.125 m) below land-surface datum, July 9, 1964.
EXTREMES FOR CURRENT YEAR.--Highest water level, 46.09 ft (14.048 m) below land-surface datum, between Jan. 12 and Mar. 5; lowest water level, 51.10 ft (15.575 m) below land-surface datum, between June 22 and Aug. 16.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 4	48.65	MAY 13	47.79	JUL 14	60.75	SEP 28	55.66

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 4	50.00	JAN 5	47.72	MAR 30	46.60	MAY 26	46.30	JUL 17	51.99

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 6	47.60	JAN 12	46.96	MAR 5	46.84	APR 19	46.47	JUN 22	46.38	AUG 16	47.73

BURLINGTON COUNTY

395525074502601. Local I.D., Medford 4 Obs. Unique Well Number, 05-0262.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 1,145 ft (349.0 m), screened 1,125 to 1,145 ft (342.9 to 349.0 m).
INSTRUMENTATION.--Water-level extremes recorder. January 1968 to July 1975, water-level recorder.
DATUM.--Land-surface datum is 72.3 ft (22.04 m) National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing 2.56 ft (0.780 m) above land-surface datum.
PERIOD OF RECORD.--January 1968 to July 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, 94.24 ft (28.724 m) below land-surface datum, Mar. 13, 1968; lowest water level, 122.77 ft (37.420 m) below land-surface datum, between July 24 and Sept. 28, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 117.39 ft (35.780 m) below land-surface datum, between Jan. 12 and Mar. 5; lowest water level, 121.07 ft (36.902 m) below land-surface datum, between June 22 and Aug. 16.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 4	114.98	MAY 13	116.80	JUL 14	121.44	SEP 28	120.90

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 4	119.61	JAN 5	117.67	MAR 30	116.62	MAY 26	117.29	JUL 17	119.99

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 6	119.95	JAN 12	118.34	MAR 5	117.95	APR 19	117.66	JUN 22	119.29	AUG 16	121.07

BURLINGTON COUNTY

395525074502501. Local I.D., Medford 5 Obs. Unique Well Number, 05-0261.
LOCATION.--Lat 39°55'25", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 750 ft (229 m), screened 740 to 750 ft (226 to 229 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 72.6 ft (22.13 m) National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.6 ft (1.10 m) above land-surface datum.
PERIOD OF RECORD.--January 1968 to March 1975, March 1977 to current year. Records for 1968 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.46 ft (28.791 m) below land-surface datum, Mar. 1, 1968; lowest water level, 123.67 ft (37.695 m) below land-surface datum, Aug. 3, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 117.87 ft (35.927 m) below land-surface datum, Jan. 21; lowest water level, 121.74 ft (37.106 m) below land-surface datum, Aug. 17.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	120.96	120.40	119.27	118.95	118.30	118.39	118.28	118.47	119.42	---	121.44	121.44
10	120.94	120.35	119.24	118.75	118.35	118.45	118.18	118.73	119.57	120.81	121.49	121.44
15	120.75	120.24	119.12	118.71	118.26	118.55	118.00	119.17	---	121.21	121.61	121.36
20	120.68	120.17	118.96	118.44	118.37	118.40	118.19	119.27	---	121.55	121.62	121.49
25	120.64	119.78	118.68	117.99	118.18	118.16	118.21	119.17	120.06	121.54	121.58	121.44
EOM	120.63	119.55	119.03	118.16	118.33	118.38	118.34	119.53	120.18	121.48	121.46	121.31
MEAN	120.78	120.15	119.14	118.50	118.30	118.42	118.23	119.02	119.77	121.19	121.54	121.40

WTR YR 1979 MEAN 119.70 HIGH 117.97 JAN 21 LOW 121.70 AUG 17

BURLINGTON COUNTY

400242074422301. Local I.D., Rhodia Corp. 1 Obs. Unique Well Number, 05-0440.
LOCATION.--Lat 40°02'42", long 74°42'23", Hydrologic Unit 02040201, on the lands of Rhodia Corporation near Jobstown.
Owner: Rhodia Corporation.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 613 ft (186.8 m), screened 603 to 613 ft (183.8 to 186.8 m).
INSTRUMENTATION.--Water-level extremes recorder. December 1968 to March 1975, water-level recorder.
DATUM.--Land-surface datum is 71.6 ft (21.82 m) National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing 2.22 ft (0.677 m) above land-surface datum.
PERIOD OF RECORD.--December 1968 to March 1975, April 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, 86.55 ft (26.380 m) below land-surface datum, Dec. 31, 1969; lowest water level, 104.13 ft (31.739 m) below land-surface datum, between Apr. 28 and Aug. 8, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 98.94 ft (30.157 m) below land-surface datum, between Jan. 11 and Mar. 5; lowest water level, 101.31 ft (30.879 m) below land-surface datum, between June 12 and Aug. 15.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 28	99.78	AUG 8	102.78

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	101.20	FEB 16	99.71	MAY 9	99.26	AUG 4	101.32

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13	100.50	JAN 11	99.65	MAR 5	100.45	JUN 12	100.22	AUG 15	100.36

BURLINGTON COUNTY

400213074510801. Local I.D., Willingboro 1 Obs. Unique Well Number, 05-0063.
LOCATION.--Lat 40°02'13", long 74°51'08", Hydrologic Unit 02040202, located along the west side of Rancocas Road about 2 mi (3.2 km) north of Rancocas.
Owner: Willingboro Municipal Utilities Authority.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 294 ft (89.6 m), screened 284 to 294 ft (86.6 to 89.6 m).
INSTRUMENTATION.--Water-level extremes recorder. March 1966 to September 1975, water-level recorder.
DATUM.--Land-surface datum is 45.4 ft (13.84 m) National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 0.76 ft (0.232 m) above land-surface datum.
PERIOD OF RECORD.--March 1966 to September 1975, February 1977 to current year. Records for 1966 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 46.25 ft (14.097 m) below land-surface datum, Mar. 19, 1966; lowest water level, 68.47 ft (20.870 m) below land-surface datum, between July 12 and Sept. 22, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 59.60 ft (18.166 m) below land-surface datum, between Jan. 11 and Mar. 5; lowest water level, 62.15 ft (18.943 m) below land-surface datum, between Sept. 29 and Nov. 6, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 4	63.27	MAY 6	63.44	JUL 12	66.83	SEP 22	64.78

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 4	62.74	JAN 3	60.22	APR 12	59.74	MAY 26	61.04	JUL 17	62.52	SEP 29	62.02

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 6	61.34	JAN 11	60.64	MAR 5	59.66	JUN 8	60.22

BURLINGTON COUNTY

400010074521601. Local I.D., Willingboro 2 Obs. Unique Well Number, 05-0645.
LOCATION.--Lat 40°00'10", long 74°52'16", Hydrologic Unit 02040202, at Bridge Street and Tiffany Lane, Willingboro.
Owner: Willingboro Municipal Utilities Authority.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 441 ft (134.4 m), screened 431 to 441 ft (131.4 to 134.4 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 40.3 ft (12.28 m) National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.0 ft (0.61 m) below land-surface datum.
PERIOD OF RECORD.--March 1966 to March 1975, March 1977 to current year. Records for 1966 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.79 ft (15.176 m) below land-surface datum, June 21, 1967; lowest water level, 79.00 ft (24.079 m) below land-surface datum, July 29, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 67.74 ft (20.647 m) below land-surface datum, Jan. 25; lowest water level, 73.17 ft (22.302 m) below land-surface datum, July 15.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	71.42	70.87	69.52	69.19	68.59	69.03	68.60	69.63	---	70.93	70.96	71.38
10	71.23	70.85	69.29	68.98	68.77	68.82	68.55	70.21	69.98	71.53	72.48	---
15	71.13	70.91	69.34	68.97	68.88	68.92	68.97	70.19	70.07	72.90	71.30	---
20	70.95	70.63	69.27	68.54	68.89	68.82	70.14	69.97	70.94	71.48	71.20	---
25	70.98	70.09	68.97	67.99	68.65	68.76	70.65	69.82	70.93	71.07	71.03	---
EOM	71.01	69.74	69.17	68.34	68.95	68.84	70.28	---	70.90	70.82	71.03	---
MEAN	71.16	70.59	69.35	68.65	68.75	68.90	69.47	70.02	70.59	71.40	71.29	71.19

WTR YR 1979 MEAN 70.04 HIGH 67.99 JAN 25 LOW 72.90 JUL 15

CAMDEN COUNTY

394922074563301. Local I.D., New Jersey Water Company, Elm Tree Farm 2 Obs. Unique Well Number, 07-0412.
LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft (61.0 m) northeast of Thomas Road and about 2 mi (3.2 km) northwest of Berlin.
Owner: New Jersey Water Company.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 1,092 ft (332.8 m), screened 1,082 to 1,092 ft (329.8 to 332.8 m).
INSTRUMENTATION.--Water-level extremes recorder. January 1963 to June 1975, water-level recorder.
DATUM.--Land-surface datum is 148.7 ft (45.32 m) National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing 1.76 ft (0.536 m) above land-surface datum.
REMARKS.--Well was originally screened 1,217 to 1,227 ft (370.9 to 374.0 m). Rehabilitated August 1969.
PERIOD OF RECORD.--January 1963 to June 1975, February 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, 166.06 ft (50.615 m) below land-surface datum, July 21, 1965; lowest water level, 218.02 ft (66.452 m) below land-surface datum, between July 14 and Sept. 22, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 207.63 ft (63.286 m) below land-surface datum, between Jan. 12 and Mar. 5; lowest water level, 216.37 ft (65.950 m) below land-surface datum, between June 19 and Oct. 10, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 8	207.96	MAR 8	208.37	MAY 12	209.03	JUL 14	215.17	SEP 22	213.06

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 9	209.56	JAN 9	207.68	MAR 29	207.52	MAY 17	208.69	JUL 17	213.54	SEP 21	213.32

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	211.18	JAN 12	209.04	MAR 5	208.83	MAY 2	210.41	JUN 19	212.66

CAMDEN COUNTY

394922074563302. Local I.D., NJ WC Elm Tree Farm 3 Obs. Unique Well Number, 07-0413.
LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft (60 m) northeast of Thomas Road and about 2 mi (3 km) northwest of Berlin.
Owner: New Jersey Water Company.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 717 ft (218.5 m), screened 706 to 717 ft (215.2 to 218.5 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 148.7 ft (45.32 m) National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 0.6 ft (0.18 m) above land-surface datum.
PERIOD OF RECORD.--December 1963 to April 1975, March 1977 to current year. Records for 1963 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 174.21 ft (53.099 m) below land-surface datum, Feb. 6, 1964; lowest water level, 225.40 ft (68.702 m) below land-surface datum, Aug. 3-4, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 215.01 ft (65.535 m) below land-surface datum, Jan. 25-26; lowest water level, 223.30 ft (68.062 m) below land-surface datum, Aug. 15-17.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		---	216.86	---	215.38	215.83	215.89	216.84	218.38	220.48	222.86	221.90
10		---	216.68	---	215.39	215.75	215.78	217.30	218.50	221.18	223.07	221.54
15		---	216.60	215.82	215.38	215.74	215.82	218.38	218.82	222.09	223.29	221.32
20		217.91	216.45	215.74	215.47	215.89	215.84	218.69	219.12	223.05	222.96	221.29
25		217.48	---	215.03	215.47	215.73	216.16	218.54	219.59	223.05	222.59	221.20
EOM		217.20	---	215.17	215.44	215.91	216.51	218.58	219.93	222.75	222.17	220.88
MEAN		217.65	216.70	215.43	215.40	215.80	215.97	217.96	218.95	221.95	222.85	221.44

WTR YR 1979 MEAN 218.39 HIGH 215.03 JAN 25 AND OTHERS LOW 223.30 AUG 16

CAMDEN COUNTY

395229074571201. Local I.D., Hutton Hill 1 Obs. Unique Well Number, 07-0117.
LOCATION.--Lat 39°52'29", long 74°57'12", Hydrologic Unit 02040202, about 800 ft (243.8 m) northeast of the intersection Kresson and Cropwell Roads, Cherry Hill Township.
Owner: New Jersey Water Company.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 562 ft (171.3 m), screened 552 to 562 ft (168.2 to 171.3 m).
INSTRUMENTATION.--Water-level extremes recorder. August 1967 to April 1975, water-level recorder.
DATUM.--Land-surface datum is 157.6 ft (48.04 m) National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing 1.89 ft (0.576 m) above land-surface datum.
PERIOD OF RECORD.--August 1967 to April 1975, February 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, 200.77 ft (61.195 m) below land-surface datum, Mar. 23, 1968; lowest water level, 247.23 ft (75.356 m) below land-surface datum, between May 12 and Aug. 12, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 230.41 ft (70.229 m) below land-surface datum, between Nov. 17 and Mar. 5; lowest water level, 239.37 ft (72.960 m) below land-surface datum, between Aug. 15 and Nov. 17, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 11	229.34	MAY 12	229.33	AUG 12	241.12

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 18	230.99	FEB 17	229.66	MAY 17	230.80	AUG 15	235.58

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 17	233.38	MAR 5	232.88	JUN 13	236.28	SEP 20	238.36

CUMBERLAND COUNTY

391828075120902. Local I.D., Jones Island 2 Obs. Unique Well Number, 11-0096.
LOCATION.--Lat 39°18'29", long 75°12'08", Hydrologic Unit 02040206, about 1.7 mi (2.7 km) south of Cedarville at Jones Island, Lawrence Township.
Owner: Cumberland County.
AQUIFER.--Piney Point Formation of Eocene Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in (102 mm), depth 375 ft (114 m), screened 365 to 375 ft (111 to 114 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 10 ft (3.0 m) National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.9 ft (0.579 m) above land-surface datum.
PERIOD OF RECORD.--March 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.99 ft (6.093 m) below land-surface datum, Mar. 22, 1977; lowest water level, 26.57 ft (8.099 m) below land-surface datum, Sept. 16, 27, 1979.
EXTREMES FOR CURRENT YEAR.--Highest water level, 24.49 ft (7.465 m) below land-surface datum, Oct. 6; lowest water level, 26.57 ft (8.099 m) below land-surface datum, Sept. 16, 27.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.68	24.90	24.90	25.61	25.62	25.56	25.49	25.66	25.61	25.91		---
10	24.92	25.04	25.09	25.55	25.67	25.47	25.58	25.70	25.72	25.96		---
15	24.82	25.05	25.12	25.63	25.55	25.64	25.44	25.72	25.85	25.94		26.42
20	24.82	25.20	25.12	25.42	25.56	25.51	25.68	25.70	25.86	---		26.49
25	24.88	25.01	25.04	25.13	25.29	25.28	25.65	25.49	25.88	---		26.42
EOM	25.01	24.95	25.42	25.37	25.49	25.54	25.63	25.78	25.81	---		26.40
MEAN	24.84	25.01	25.15	25.42	25.54	25.54	25.58	25.69	25.77	25.94		26.42

WTR YR 1979 MEAN 25.49 HIGH 24.61 OCT 6 LOW 26.51 SEP 16 AND OTHERS

GLOUCESTER COUNTY

394942075131701. Local I.D., Shell Chemical 5 Obs. Unique Well Number, 15-0296.
LOCATION.--Lat 39°49'42", long 75°13'17", Hydrologic Unit 02040202, near the intersection of Mantua Grove Road and Route 295, West Deptford Township.
Owner: Shell Chemical Company.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 327 ft (99.7 m), screened 322 to 327 ft (98.1 to 99.7 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 20.8 ft (6.34 m) National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.9 ft (0.88 m) above land-surface datum.
REMARKS.--Water levels in this well are affected by nearby pumping.
PERIOD OF RECORD.--June 1962 to current year. Records for 1962 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.75 ft (8.458 m) below land-surface datum, Dec. 6, 1962; lowest water level, 40.63 ft (12.384 m) below land-surface datum, July 21, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 33.32 ft (10.156 m) below land-surface datum, Mar. 11; lowest water level, 38.28 ft (11.668 m) below land-surface datum, Oct. 25.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.48	36.73	36.93	37.37	36.22	34.12	34.42	34.96	34.85	35.38	---	36.29
10	36.27	36.78	37.21	36.73	36.07	33.77	34.72	35.18	34.90	35.84	35.91	35.79
15	36.16	37.30	36.94	36.75	35.97	34.38	34.32	35.27	34.85	36.04	35.60	35.92
20	36.09	37.28	37.12	36.05	35.48	34.63	34.75	35.06	35.31	36.08	35.30	35.88
25	38.08	36.74	36.68	36.30	35.37	34.07	34.91	34.58	34.93	35.42	35.44	35.56
EOM	37.00	36.74	36.89	35.80	34.71	34.08	34.23	34.90	35.11	35.34	36.21	35.28
MEAN	36.59	36.87	37.02	36.48	35.74	34.27	34.61	34.92	34.95	35.64	35.62	35.87

WTR YR 1979 MEAN 35.72 HIGH 33.58 MAR 11 LOW 38.08 OCT 25

HUNTERDON COUNTY

402644074563601. Local I.D., Bird Obs. Unique Well Number, 19-0002.
LOCATION.--Lat 40°26'44", long 74°56'36", Hydrologic Unit 02040105, at U.S. Post Office, Sergeantsville.
Owner: Phillip Fleming.
AQUIFER.--Stockton Formation of Triassic Age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 36 in (914 mm), depth 21 ft (6.4 m), lined with stone.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 342 ft (104.2 m) National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.5 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--June 1965 to July 1970, May 1977 to current year. Records for 1965 to 1970 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.91 ft (2.106 m) below land-surface datum, Mar. 28-29, 1978; lowest water level, 16.40 ft (4.999 m) below land-surface datum, Nov. 9, 1965.
EXTREMES FOR CURRENT YEAR.--Highest water level, 7.67 ft (2.338 m) below land-surface datum, May 27; lowest water level, 16.14 ft (4.919 m) below land-surface datum, Nov. 17-18.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.30	15.68	13.43	9.98	11.58	10.56	12.79	13.62	11.15		12.86	14.71
10	15.41	15.89	10.38	8.60	12.97	8.91	12.65	14.12	12.61		13.84	11.62
15	15.60	16.06	11.24	10.09	13.64	9.77	11.62	14.29	10.87		12.21	12.98
20	15.70	15.74	12.55	11.87	14.11	11.55	11.64	13.99	---		13.35	13.91
25	15.79	15.12	12.21	8.83	10.21	12.39	12.74	9.15	---		14.08	11.09
EOM	15.51	14.55	12.19	9.68	9.51	12.48	12.90	9.06	---		14.16	12.39
MEAN	15.53	15.59	12.19	9.98	12.41	10.71	12.36	12.53	11.23		13.42	12.68

WTR YR 1979 MEAN 12.64 HIGH 7.73 MAY 27 LOW 16.13 NOV 18

SALEM COUNTY

394037075191501. Local I.D., Point Airy Obs. Unique Well Number, 33-0187.
LOCATION.--Lat 39°40'37", long 75°19'14", Hydrologic Unit 02040206, at intersection of Point Airy and Woodstown-Swedesboro Roads, 1 mi (1.61 km) north of Woodstown Borough boundary.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy Aquifer system of Cretaceous Age.
WELL CHARACTERISTICS.--Drilled artesian observtion well, diameter 6 in (152 mm), depth 672 ft (204.8 m), screened 664 to 672 ft (202.4 to 204.8 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 73.0 ft (22.25 m) National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch casing, 1.8 ft (0.55 m) above land-surface datum.
PERIOD OF RECORD.--February 1959 to August 1975, March 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 78.55 ft (23.942 m) below land-surface datum, Mar. 6, 1959; lowest water level, 100.52 ft (30.638 m) below land-surface datum, Aug. 6-7, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 95.28 ft (29.041 m) below land-surface datum, Apr. 9; lowest water level, 97.87 ft (29.831 m) below land-surface datum, Nov. 10-11.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	97.72	97.51	97.12	96.93	96.08	95.95	95.71	95.56	95.67	96.29	96.83	97.09
10	97.70	97.75	97.20	96.67	96.24	95.91	95.59	95.68	96.05	96.60	97.01	97.04
15	97.67	97.65	97.15	96.53	96.14	95.99	95.52	95.76	96.17	96.75	96.99	97.17
20	97.76	97.57	96.91	96.49	96.35	95.72	95.73	95.75	96.34	96.76	97.13	97.34
25	97.70	97.40	96.61	96.07	95.94	95.53	95.63	95.51	96.43	96.82	97.23	96.99
EOM	97.66	97.32	96.91	96.08	96.02	95.82	95.59	95.83	96.30	96.98	97.29	96.76
MEAN	97.70	97.56	97.08	96.44	96.16	95.87	95.65	95.70	96.12	96.67	97.07	97.08

WTR YR 1979 MEAN 96.59 HIGH 95.40 APR 9 AND OTHERS LOW 97.83 OCT 18

WARREN COUNTY

405050075033201. Local I.D., Hoffmann LaRoche 4 Obs. Unique Well Number, 41-0013.
LOCATION.--Lat 40°50'50", long 75°03'32", Hydrologic Unit 02040105, 1 mi (1.6 km) northeast of Belvidere on Route 46.
Owner: Hoffmann LaRoche, Inc.
AQUIFER.--Glacial Till of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 8 in (203 mm), depth 128 ft (39.0 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 290 ft (88.4 m) National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.2 ft (0.67 m) above land-surface datum.
PERIOD OF RECORD.--1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.10 ft (9.174 m) below land-surface datum, July 5, 1972; lowest water level, 46.59 ft (14.201 m) below land-surface datum, Sept. 18, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 35.37 ft (10.781 m) below land-surface datum, Feb. 2; lowest water level, 46.36 ft (14.131 m) below land-surface datum, Nov. 16-17.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.45	46.03	45.94	43.38	35.71	38.28	39.09	39.86	39.85	43.19	43.86	45.06
10	45.55	46.22	45.71	41.51	36.91	36.93	39.51	40.18	40.17	43.67	43.59	44.86
15	45.69	46.32	45.29	39.90	38.21	36.46	39.37	40.73	40.75	44.06	43.50	---
20	45.81	46.30	45.22	39.71	39.45	36.72	39.30	41.35	41.41	44.31	43.69	---
25	45.90	46.09	44.85	38.76	40.36	37.65	39.46	41.74	42.09	44.33	44.08	---
EOM	45.80	46.23	44.53	35.64	39.67	38.49	39.74	40.39	42.67	44.13	44.68	45.17
MEAN	45.68	46.16	45.35	40.28	37.97	37.49	39.34	40.68	40.99	43.87	43.89	44.99

WTR YR 1979 MEAN 42.15 HIGH 35.39 FEB 2 LOW 46.35 NOV 16

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CAPE MAY COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	SEQ. NO.	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	CHLORIDE, DISSOLVED (MG/L AS CL)
27	CAPE MAY CITY WD 1	38 56 43	074 55 33	01	121CNSY	79-08-30	15.0	679	7.4	150
28	HARBESON-WALKER REF CO 2	38 56 43	074 57 55	01	121CNSY	79-08-30	15.0	608	7.5	180
29	HARBESON-WALKER REF CO 1	38 56 45	074 58 03	01	121CKKD	79-08-30	--	995	7.8	200
36	CAPE MAY CITY WD 2	38 57 01	074 55 28	01	121CNSY	79-08-30	15.0	408	7.5	51
43	CAPE MAY CITY WD 3	38 57 24	074 55 21	01	121CNSY	79-08-30	15.0	302	7.6	18
52	LOWER TWP MUA 1	38 58 53	074 57 12	01	121CNSY	79-08-29	15.0	252	7.8	11
54	LOWER TWP MUA 2	38 59 05	074 56 25	01	121CNSY	79-08-29	14.5	258	7.7	16
67	WILDWOOD WD RIO GRAND 38	39 01 35	074 53 52	01	122KRKD	79-08-29	16.5	532	7.9	78
70	WILDWOOD WD RIO GRAND 36	39 01 37	074 53 52	01	112CPMY	79-08-29	13.5	201	6.2	21
72	WILDWOOD WD RIO GRAND 31	39 01 38	074 53 50	01	112ESRNS	79-08-29	13.5	189	7.6	11
74	WILDWOOD WD RIO GRAND 29	39 01 39	074 53 49	02	121CNSY	79-08-29	14.0	157	7.5	10

LOCAL IDENTIFIER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD)	DEPTH OF HOLE, TOTAL (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF WATER-BEARING ZONE (FT)	DEPTH TO BOTTOM OF WATER-BEARING ZONE (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE, INSTANTANEOUS (GPM)
CAPE MAY CITY WD 1	79-08-30	12.00	--	306	92	--	277	306	10	800
HARBESON-WALKER REF CO 2	79-08-30	10.00	270	268	200	--	235	265	120	700
HARBESON-WALKER REF CO 1	79-08-30	10.00	385	327	296	327	296	321	10	500
CAPE MAY CITY WD 2	79-08-30	12.00	322	282	--	--	174	282	10	800
CAPE MAY CITY WD 3	79-08-30	15.00	--	276	--	--	--	276	1440	800
LOWER TWP MUA 1	79-08-29	18.00	285	262	200	--	241	262	240	830
LOWER TWP MUA 2	79-08-29	12.00	--	247	--	--	212	247	10	550
WILDWOOD WD RIO GRAND 38	79-08-29	10.00	592	592	--	--	461	590	120	900
WILDWOOD WD RIO GRAND 36	79-08-29	9.00	63	63	--	--	48	63	120	350
WILDWOOD WD RIO GRAND 31	79-08-29	10.00	141	135	92	139	108	135	120	300
WILDWOOD WD RIO GRAND 29	79-08-29	8.00	258	244	--	--	191	231	120	700

Geologic unit (aquifer):
112CPMY - Cape May Formation, Undifferentiated
112ESRNS - Cape May Formation, Estuarine Sand Facies
121CNSY - Cohansey Sand
121CKKD - Cohansey Sand-Kirkwood Formation, Undifferentiated
122KRKD - Kirkwood Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CUMBERLAND COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	SEQ. NO.	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	CHLORIDE, DISSOLVED (MG/L AS CL)
116	MOORES BEACH FIRE DEPT	39 11 18	074 57 05	01	122KRKD	79-08-07	--	--	--	3.3
123	NJDIA LEESBURG SP FARM 1	39 13 56	074 57 51	01	122KRKD	79-08-07	15.0	173	8.3	3.4
52	FORTESCUE REALTY 4	39 14 20	075 10 23	02	122KRKD	79-08-07	15.5	223	8.0	5.5
255	JOSEPH HETMANSKI	39 16 17	075 13 55	01	124PNPN	79-08-07	--	970	--	220
54	M GANDYS BEACH	39 16 18	075 13 54	01	124PNPN	79-08-07	15.0	3000	7.3	900
256	H MYERS	39 16 19	075 13 57	01	124PNPN	79-08-07	--	610	--	55
257	RICHARD A GONDOLF	39 16 20	075 14 10	01	124PNPN	79-08-07	--	660	--	60
56	MONEY ISL MARINA 1	39 17 04	075 14 15	01	124PNPN	79-08-08	--	710	8.0	75
92	BAY PT ROD & GUN CLUB 2	39 17 46	075 15 10	02	124PNPN	79-08-08	--	760	8.0	79
61	SEA BREEZE TAVERN 2	39 19 26	075 19 21	01	124PNPN	79-08-08	--	680	8.1	66

LOCAL IDENTIFIER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD)	DEPTH OF HOLE, TOTAL (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF WATER-BEARING ZONE (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE, INSTANTANEOUS (GPM)
MOORES BEACH FIRE DEPT	79-08-07	4.00	315	315	280	295	315	--	--
NJDIA LEESBURG SP FARM 1	79-08-07	13.00	270	268	250	248	268	10	200
FORTESCUE REALTY 4	79-08-07	8.00	--	303	--	283	303	10	200
JOSEPH HETMANSKI	79-08-07	5.00	--	440	--	--	--	--	--
M GANDYS BEACH	79-08-07	5.00	--	402	--	378	402	10	50
H MYERS	79-08-07	5.00	--	400	--	--	--	--	--
RICHARD A GONDOLF	79-08-07	5.00	--	400	--	--	--	--	--
MONEY ISL MARINA 1	79-08-08	4.00	--	370	--	350	370	--	--
BAY PT ROD & GUN CLUB 2	79-08-08	5.00	417	417	330	397	417	--	--
SEA BREEZE TAVERN 2	79-08-08	4.00	354	354	260	281	354	45	20

Geologic unit (aquifer):
122KRKD - Kirkwood Formation
124PNPN - Piney Point Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

GLOUCESTER COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	SEQ. NO.	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	CHLORIDE, DISSOLVED (MG/L AS CL)
1	CLAYTON BORO WD 3	39 39 12	075 05 22	01	211MGRR	79-08-17	20.5	1020	8.4	140
3	CLAYTON BORO WD 4	39 40 13	075 05 58	01	211MGRR	79-08-17	20.0	870	8.4	98
361	GLASSBORO BORO WD 5	39 41 41	075 07 10	01	211MGRR	79-08-17	19.0	670	8.4	55
60	GLASSBORO BORO WD 3	39 42 05	075 07 53	01	211MGRR	79-08-17	18.5	725	8.4	66
225	PITMAN BORO WD P1	39 44 05	075 07 45	01	211MGRR	79-08-14	17.0	495	8.2	38
130	SO JERSEY WS CO 3	39 44 08	075 13 30	02	211MGRR	79-08-14	15.5	950	8.1	150
236	SWEDESBORO BORO WD 3	39 44 34	075 18 43	01	211MGRR	79-08-15	14.5	375	7.1	41
189	SEWELL WC 1	39 46 02	075 08 23	01	211MGRR	79-08-14	14.5	400	8.1	26
6	WOODBURY CTY WD-SEWEL 1A	39 46 27	075 08 13	02	211MGRR	79-08-14	15.5	425	7.9	34
194	MANTUA WC 3	39 47 32	075 10 36	01	211MGRR	79-08-14	--	445	8.1	38
274	WENONAH BORO WD 1	39 47 43	075 09 02	01	211MGRR	79-08-14	14.5	360	8.1	20
166	PENNS GROVE WC-BRIDGPT 2	39 47 55	075 21 08	02	211MGRR	79-08-15	13.5	187	5.0	13
210	PAULSBORO WD 6-73	39 49 21	075 14 17	01	211MGRR	79-08-15	14.5	262	6.1	35
212	PAULSBORO WD 4-51	39 49 29	075 14 47	01	211MGRR	79-08-15	15.5	355	--	36
79	EI DUPONT REPAUNO 6	39 49 44	075 17 34	01	211MGRR	79-08-15	14.0	470	5.5	95
81	EI DUPONT REPAUNO 5	39 49 45	075 17 17	01	211MGRR	79-08-15	14.5	236	5.7	32
331	WOODBURY WD RAILROAD 5	39 49 50	075 09 09	01	211MGRR	79-08-14	14.5	372	7.8	46
213	PAULSBORO WD 5-57	39 49 47	075 14 16	01	211MGRR	79-08-15	15.0	237	4.6	19
98	MOBIL OIL-GREENWICH 45	39 50 05	075 15 23	01	211MGRR	79-08-15	15.0	2180	5.2	140
118	MOBIL OIL-GREENWICH 47	39 50 36	075 15 01	01	211MGRR	79-08-14	14.5	500	6.0	120
207	NATIONAL PARK BORO WD 2	39 51 56	075 10 53	01	211MGRR	79-08-15	13.5	325	7.0	27

LOCAL IDENTIFIER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD)	DEPTH OF HOLE, TOTAL (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF WATER-BEARING ZONE (FT)	DEPTH TO BOTTOM OF WATER-BEARING ZONE (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE, INSTANTANEOUS (GPM)
CLAYTON BORO WD 3	79-08-17	133.00	1010	800	740	802	746	800	210	800
CLAYTON BORO WD 4	79-08-17	140.00	943	741	657	778	670	740	15	1250
GLASSBORO BORO WD 5	79-08-17	138.00	--	660	--	--	600	657	1440	1000
GLASSBORO BORO WD 3	79-08-17	150.00	--	615	544	--	562	612	10	630
PITMAN BORO WD P1	79-08-14	140.00	514	514	460	--	468	514	360	350
SO JERSEY WS CO 3	79-08-14	35.00	270	268	225	266	234	265	--	--
SWEDESBORO BORO WD 3	79-08-15	70.00	344	315	234	312	241	312	60	720
SEWELL WC 1	79-08-14	80.00	377	377	320	377	352	377	--	--
WOODBURY CTY WD-SEWEL 1A	79-08-14	20.00	317	314	247	315	271	312	15	950
MANTUA WC 3	79-08-14	10.00	335	268	--	--	230	265	--	--
WENONAH BORO WD 1	79-08-14	80.00	321	320	265	--	286	320	15	140
PENNS GROVE WC-BRIDGPT 2	79-08-15	20.00	127	88	60	84	65	85	10	95
PAULSBORO WD 6-73	79-08-15	15.00	--	230	--	--	185	227	1440	700
PAULSBORO WD 4-51	79-08-15	15.00	--	226	--	--	192	220	15	700
EI DUPONT REPAUNO 6	79-08-15	10.00	--	109	--	--	84	109	10	325
EI DUPONT REPAUNO 5	79-08-15	10.00	--	99	--	--	81	99	480	200
WOODBURY WD RAILROAD 5	79-08-14	35.00	--	457	--	--	405	457	40	600
PAULSBORO WD 5-57	79-08-15	10.00	--	196	--	--	135	175	15	700
MOBIL OIL-GREENWICH 45	79-08-15	3.00	--	118	--	--	95	118	--	--
MOBIL OIL-GREENWICH 47	79-08-14	20.00	247	245	217	242	220	240	1440	200
NATIONAL PARK BORO WD 2	79-08-15	30.00	307	282	194	288	241	282	15	700

Geologic unit (aquifer):
211MGRR - Potomac-Raritan-Magothy Aquifer System

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SALEM COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	SEQ. NO.	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	CHLORIDE, DISSOLVED (MG/L AS CL)
32	SALEM NUCLEAR GEN STA 3	39 27 40	075 32 02	01	211MLRW	79-05-18	15.5	--	--	66
34	SALEM NUCLEAR GEN STA 1	39 27 42	075 32 00	01	211MLRW	79-05-18	15.5	--	--	70
364	SALEM NUCLEAR GEN STA 5	39 27 43	075 31 58	01	211MGRR	79-05-18	19.5	--	--	17
35	SALEM NUCLEAR GEN STA 2	39 27 44	075 32 05	01	211MLRW	79-05-18	15.0	--	--	210
33	L ALLOWAY CR ELEM SCH 1	39 27 51	075 24 41	01	211MLRW	79-08-29	--	505	8.1	41
	SALEM CITY WD-QUINTON ML	39 32 53	075 24 25	02	211MLRW	79-08-17	15.5	345	7.7	10
48	MANNINGTON MILLS 2-67	39 34 51	075 27 18	01	211MLRW	79-08-17	--	340	7.0	21
107	NJ DEP-FT MOTT S P 1	39 36 20	075 33 10	01	211MGRR	78-10-05	--	510	6.7	91
108	US ARMY-FINNS POINT	39 36 41	075 33 22	01	211MGRR	78-10-05	14.5	630	6.9	140
					211MGRR	79-08-29	--	600	--	110
112	PENNSVILLE TWP WD 4	39 37 54	075 31 48	01	211MGRR	79-08-30	14.0	188	6.8	9.5
354	WOODSTOWN BORO WD 2	39 39 04	075 19 46	02	211MGRR	79-08-29	18.0	1070	8.0	210
362	WOODSTOWN BORO WD 3	39 39 27	075 19 27	01	211MGRR	79-08-29	18.0	905	7.9	150
163	RICHMAN ICE CREAM 1	39 39 28	075 21 47	01	211MGRR	79-08-29	--	382	--	18
117	PENNSVILLE TWP WD 3	39 39 54	075 30 13	01	211MGRR	78-10-05	14.0	156	6.6	8.0
118	PENNSVILLE TWP WD 1	39 39 58	075 30 45	01	211MGRR	78-10-05	14.5	425	--	64
					211MGRR	79-08-30	14.5	455	7.0	62
119	PENNSVILLE TWP WD 2	39 40 09	075 30 43	01	211MGRR	78-10-05	15.0	610	6.3	130
					211MGRR	79-08-30	16.0	635	6.8	120
122	ATL CITY EL-DEEPWATER 3R	39 40 46	075 30 22	02	211MGRR	78-10-05	14.0	375	6.6	43
					211MGRR	79-08-30	14.5	370	7.1	44
125	ATL CITY EL-DEEPWATER 5	39 40 50	075 30 30	01	211MGRR	78-10-05	15.0	432	6.6	70
					211MGRR	79-08-30	15.5	450	6.8	65
127	ATL CITY EL-DEEPWATER 6	39 41 00	075 30 30	01	211MGRR	79-08-30	16.0	820	6.6	160
137	EI DUPONT-DRINKWATER 8	39 41 12	075 30 28	01	211MGRR	78-10-05	15.0	500	6.7	70
					211MGRR	79-08-30	15.0	515	7.5	74
	PENNS GROVE WC LAYTN1-79	39 42 04	075 26 59	01	211MGRR	79-08-30	--	238	6.5	13
345	PENNS GROVE WC 2B	39 42 47	075 27 14	01	211MGRR	78-10-05	12.5	207	6.3	15
					211MGRR	79-08-30	--	213	5.2	12
346	PENNS GROVE WC-LAYNE 1	39 42 56	075 27 18	01	211MGRR	78-10-05	14.5	900	6.5	210
					211MGRR	79-08-30	15.5	935	7.5	200

Geologic unit (aquifer):
211MLRW - Mount Laurel Sand-Wenonah Formation
211MGRR - Potomac-Raritan-Magothy Aquifer System

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SALEM COUNTY--Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD)	DEPTH OF HOLE, TOTAL (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF WATER-BEARING ZONE (FT)	DEPTH TO BOT-TOM OF WATER-BEARING ZONE (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (GPM)
SALEM NUCLEAR GEN STA 3	79-05-18	20.00	--	293	--	--	243	293	--	--
SALEM NUCLEAR GEN STA 1	79-05-18	20.00	--	298	--	--	248	298	--	--
SALEM NUCLEAR GEN STA 5	79-05-18	20.00	--	--	--	--	--	--	--	--
SALEM NUCLEAR GEN STA 2	79-05-18	20.00	--	281	--	--	230	280	--	--
L ALLOWAY CR ELEM SCH 1	79-08-29	10.00	--	340	--	--	--	--	10	30
SALEM CITY WD-QUINTON ML	79-08-17	7.00	--	250	--	--	--	--	--	--
MANNINGTON MILLS 2-67	79-08-17	10.00	--	128	--	--	87	127	--	--
NJ DEP-FT MOTT S P 1	78-10-05	8.00	--	320	300	--	300	320	--	--
US ARMY-FINNS POINT	78-10-05	7.00	--	319	302	--	282	319	--	--
	79-08-29	7.00	--	319	302	--	282	319	15	20
PENNSVILLE TWP WD 4	79-08-30	10.00	--	137	--	--	117	137	1080	360
WOODSTOWN BORO WD 2	79-08-29	45.00	705	705	674	--	670	705	15	350
WOODSTOWN BORO WD 3	79-08-29	60.00	--	700	--	--	--	--	15	650
RICHMAN ICE CREAM 1	79-08-29	25.00	475	475	400	--	418	446	120	100
PENNSVILLE TWP WD 3	78-10-05	7.00	--	102	84	--	87	102	1440	430
PENNSVILLE TWP WD 1	78-10-05	8.00	248	248	212	238	213	238	120	150
	79-08-30	8.00	248	248	212	238	213	238	50	190
PENNSVILLE TWP WD 2	78-10-05	7.00	242	232	197	232	210	230	10	260
	79-08-30	7.00	242	232	197	232	210	230	60	150
ATL CITY EL-DEEPWATER 3R	78-10-05	10.00	285	236	--	243	165	235	180	500
	79-08-30	10.00	285	236	--	243	165	235	--	--
ATL CITY EL-DEEPWATER 5	78-10-05	15.00	300	224	147	249	149	219	1440	500
	79-08-30	15.00	300	224	147	249	149	219	--	--
ATL CITY EL-DEEPWATER 6	79-08-30	15.00	220	188	147	199	158	188	--	--
EI DUPONT-DRINKWATER 8	78-10-05	14.00	--	361	--	--	317	361	720	300
	79-08-30	14.00	--	361	--	--	317	361	--	--
PENNS GROVE WC LAYTN1-79	79-08-30	10.00	--	68	--	--	40	60	60	450
PENNS GROVE WC 2B	78-10-05	19.00	--	60	--	--	45	60	10	300
	79-08-30	19.00	--	60	--	--	45	60	180	275
PENNS GROVE WC-LAYNE 1	78-10-05	19.00	366	357	279	--	317	357	10	700
	79-08-30	19.00	366	357	279	--	317	357	60	550

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). 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)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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