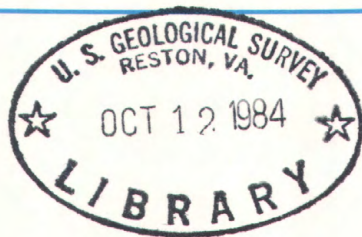


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# Water Resources Data New York Water Year 1983

Volume 1. Eastern New York excluding  
Long Island



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-83-1  
Prepared in cooperation with the State of New York  
and with other agencies



# CALENDAR FOR WATER YEAR 1983

1982

## OCTOBER

S	M	T	W	T	F	S
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31						

## NOVEMBER

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## DECEMBER

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1983

**JANUARY**

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**MARCH**

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## APRIL

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## MAY

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## JUNE

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## JULY

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## AUGUST

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# SEPTEMBER

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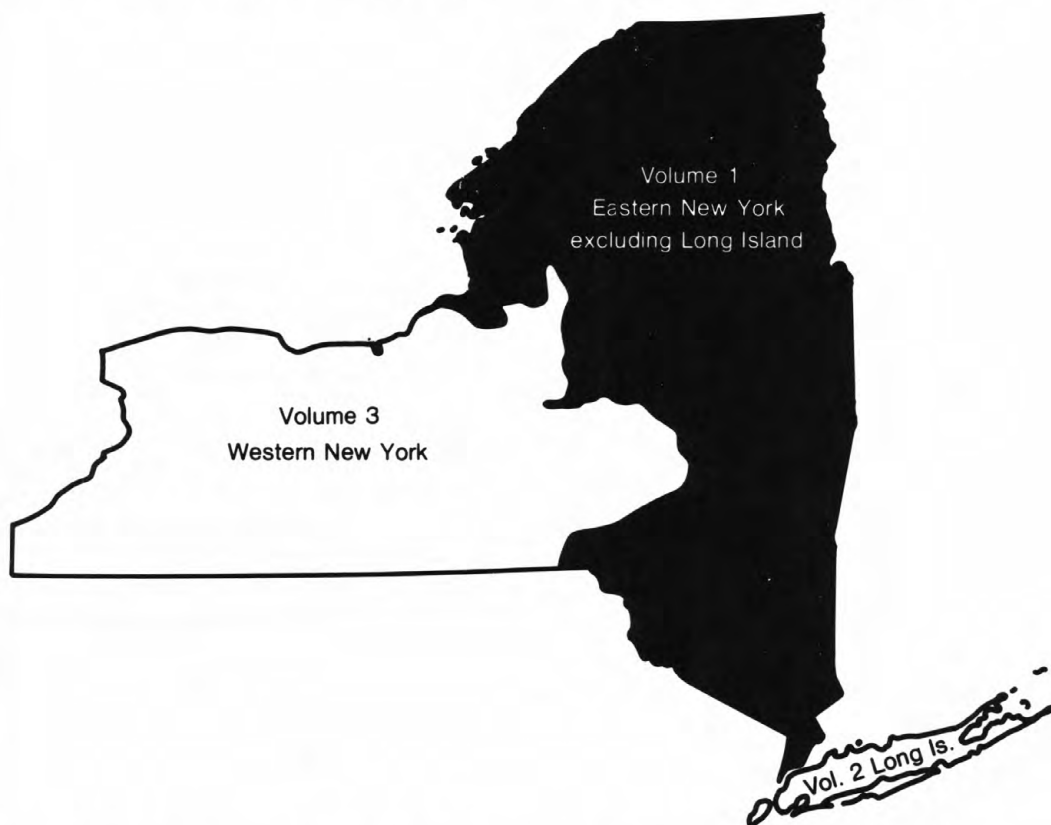




# Water Resources Data New York Water Year 1983

## Volume 1. Eastern New York excluding Long Island

by Richard Lumia, R.J. Archer, P.M. Burke, and F. N. Dalton



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-83-1  
Prepared in cooperation with the State of New York  
and with other agencies



UNITED STATES DEPARTMENT OF THE INTERIOR  
WILLIAM P. CLARK, Secretary

GEOLOGICAL SURVEY  
Dallas L. Peck, Director

For information on the water program in New York write to  
District Chief, Water Resources Division  
U.S. Geological Survey  
U.S. Post Office and Courthouse  
P.O. Box 1350  
Albany, New York 12201  
1984



## PREFACE

This volume of the annual hydrologic data report of New York is one of a series of annual reports that document hydrologic data gathered from the U. S. Geological Survey's surface- and ground-water datacollection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for New York are contained in three volumes:

- Volume 1. Eastern New York excluding Long Island
- Volume 2. Long Island
- Volume 3. Western New York

In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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This report was prepared in cooperation with the State of New York and with other agencies under the general supervision of L. A. Martens, District Chief, New York.







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WATER RESOURCES DATA FOR NEW YORK, 1983  
Volume 1.--Eastern New York excluding Long Island

INTRODUCTION

Water resources data for the 1983 water year for New York consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 96 gaging stations; stage only at 5 gaging stations; and stage and contents at 4 gaging stations, and 19 other lakes and reservoirs; water quality at 32 gaging stations, and water levels at 24 observation wells. Locations of these sites are shown on figures 4A and 4B. Also included are data for 52 crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volumes 2 and 3 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in New York.

Records of discharge and 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 September 30, 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 the U.S. Geological Survey, Branch of Distribution, 604 South Pickett Street, Alexandria, VA 22304.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released in separate reports.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official 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 is identified as "U.S. Geological Survey Water-Data Report NY-83-1." 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 (518) 472-3107.

COOPERATION

The U.S. Geological Survey and organizations of the State of New York and other agencies have had cooperative agreements for the systematic collection of water records since 1900. Organizations that assisted in collecting data included in Volume 1, water year 1983, through cooperative agreement with the Survey are:

New York State Department of Environmental Conservation  
New York State Department of Transportation  
County of Ulster, County Legislature  
County of Westchester, Department of Public Works  
City of Albany, Department of Water and Water Supply  
City of New York, Bureau of Water Resources Development  
City of New York, Department of Environmental Protection  
Village of Nyack  
Board of Hudson River-Black River Regulating District  
Oswegatchie River-Cranberry Reservoir Commission  
Power Authority of the State of New York

Assistance in the form of funds for collecting records at gaging stations published in this report was also given by the U.S. Army Corps of Engineers, the Environmental Protection Agency, and the St. Lawrence Seaway Development Corp.

The following municipalities and organizations aided in collecting records:

Mamaroneck, Plattsburgh, Rome, Rye, Tarrytown, Lake George and Yonkers; Central Hudson Gas and Electric Corp.; Indian River Co.; New York State Electric and Gas Corp.; Niagara Mohawk Power Corp.; Orange and Rockland Utilities, Inc.; Power Authority of the State of New York; and Spring Valley Water Co.

Organizations that supplied data are acknowledged in station descriptions.



## SUMMARY OF HYDROLOGIC CONDITIONS

The annual mean discharge of streams in eastern New York in water year 1983 was generally average or above average except in the Mohawk River basin, where it was below average, and in the lower Hudson River basin, where it was generally much above average. A below-average snowpack in eastern New York, resulting from a relatively mild winter, did not contribute significantly to spring runoff. The high spring runoff of 1983 was due to exceptionally large amounts of precipitation. General precipitation and streamflow patterns during 1983 in eastern New York were similar to those of 1982, except for the wet spring in some areas.

October flows were below normal in all but most drainage basins of the northwestern Adirondack mountains, where mid-month precipitation caused above-average streamflows.

November and December precipitation was above average in northern New York, where more than 1 inch of rain November 4-5 and December 16 caused above-average streamflows. In contrast, streamflows in extreme southeastern New York were below normal. Storage in the New York City reservoir system (52-53 percent of capacity) was 20 to 25 percent below normal for this period.

January precipitation in the northern part of the state was below normal, allowing streamflows to return to normal. Average precipitation over the remainder of eastern New York resulted in a continued deficiency in cumulative streamflow for the region.

February and March temperatures were above normal in eastern New York, causing below-average snowpacks. Precipitation and streamflow were normal in northern New York, but above-average precipitation caused excessive streamflows in some parts of southeastern New York. More than 2 inches of rain was recorded on February 3-4 in parts of southeastern New York. This storm initiated the breakup and jamming of river ice throughout the area. Heavy precipitation March 19-21 helped sustain the above-average streamflows in southeastern New York and caused excessive streamflows in the Schoharie Creek and the lower Hudson River basins.

April precipitation was above normal throughout the State. Six separate storms resulted in a record-breaking 8 inches of precipitation in the Albany area during the month. Streamflow was high at all stations monitored, except at those in the northern part of the State. New record-high April means were reported at some stations in the Mohawk and lower Hudson River basins. Rains brought several streams in southeastern New York over their banks in the middle of April. Extensive damage to crops occurred along the Wallkill River during the week of April 18, and minor flooding on April 25 inconvenienced residents living along several streams in eastern and southeastern New York. The combined storage of the New York City reservoir system was at 100 percent capacity by the end of April.

During the early part of May, streamflow was receding in southeastern parts of the State, but moderate to heavy precipitation throughout the second half of the month kept streamflow in the excessive range for the third consecutive month. Streamflows in the northern Adirondacks were generally receding throughout May. The abnormally wet period in the upper Hudson River basin that began in early April continued into the first week of May and caused the Great Sacandaga Lake to spill (May 1-10) over the Conklingville Dam for the first time in its 53-year history. The record-high lake level was 2.5 ft higher than the previous record of June 1972. A new peak discharge was recorded May 4 at the gage below the dam on the Sacandaga River. This, coupled with the seasonally high flow of the Hudson River, caused the highest sustained flow since March 1936 along the Hudson River from its confluence with the Sacandaga River at Hadley to the Federal Dam at Green Island. At the upper end of this reach, the 15- and 30-consecutive-day mean values approached the 50-year recurrence interval, and at the lower end, near Waterford, both of these flow statistics exceeded the 100-year recurrence interval. No major flooding occurred during the period, but considerable property damage was experienced along the Great Sacandaga Lake shore.

June streamflow in eastern New York receded for most of the month as a result of below-normal precipitation, but the exceptionally wet spring caused discharge to remain in the average to excessive range. Flows in the southeastern part of New York remained in the excessive range for the fourth consecutive month.

Summer streamflow conditions in eastern New York were generally normal to below normal except in the northwestern part during August, when precipitation caused above-average discharges. A significant increase in streamflow was also observed throughout southeastern New York during the storm of September 22-23. At 64 percent of capacity, the storage in the New York City reservoir system was about 10 percent below normal at the end of September.

Water-quality data from the eight NASQAN stations and the Hydrologic Benchmark station in eastern upstate New York indicated a few new extremes for these stations' period of record, but the extremes were not significantly different from their normal range.

Ground-water levels in eastern New York ranged from below average to average for the 1983 water year, continuing the trend from the 1981 and 1982 water years. Although water levels rose from their summer seasonal decline, they generally remained in the below-average range. In December, unseasonably warm weather and light rain contributed to the recharge of most aquifers. Snow-free conditions and above-average precipitation in March and April produced extensive spring recharge throughout most of eastern New York. Water levels continued their sharp spring rise, and new period-of-record highs were recorded at seven observation wells:

Local No.	County	Years of record	Local No.	County	Years of record
Du-1009	Dutchess	15	Ro-18	Rockland	34
O-104	Orange	17	W-533	Washington	9
P-609	Putnam	43 (tied high)	We-3	Westchester	42
Re-700	Rensselaer	29			

From early July through the end of the water year, all water levels were undergoing their seasonal decline. Conditions ranged from average to below average, and a new period-of-record low was recorded at observation well O-104 near Chester in Orange County.

## 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 system units to International System of units (SI) 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.

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.

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. 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 the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms 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 intestines 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 brainheart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on KF medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material See Bottom material.

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

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

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

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 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.



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

Bottom material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

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".

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, or about 646,000 gallons.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

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

Colloid is any substance with particles in such a fine state of subdivision dispersed in a medium, for example water, that they do not settle out; but not in so fine a state of subdivision that they can be said to be truly dissolved.

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.

Confined aquifer a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table (it can also be above ground level). Formerly called artesian aquifer.

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.

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

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

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

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

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

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

Dissolved refers to that material in a representative water sample which passes through a 0.45-micrometer 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 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 specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution 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 a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ( $\text{CaCO}_3$ ).

High tide is the maximum tidal peak reached each day.

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.

Low tide is the minimum tidal trough reached each day.

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

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 synthetic detergent compounds.

Micrograms per gram ( $\mu\text{g/g}$ ) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

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

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

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.

Organic carbon (OC) is a measure of the organic matter present in aqueous solution and (or) suspension. May be reported in any of three categories (DOC, dissolved organic carbon; SOC, suspended organic carbon; TOC, total organic carbon).

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 ( $\text{m}^2$ ), 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 and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle-size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in distilled water (chemically dispersed).

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. The sample is subjected to mechanical and chemical dispersion in distilled water before 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 algae, fungi, and bacteria which are attached to or live upon submerged objects in lakes and rivers.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PCI, pCi) is one trillionth ( $1 \times 10^{12}$ ) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields  $3.7 \times 10^{10}$  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/mL of sample.

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

Fire algae (Pyrrhophyta) are free-swimming unicells characterized by a red spot.

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/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.



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

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

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 [ $\text{mg C}/(\text{m}^2 \cdot \text{time})$  for periphyton and macrophytes and  $\text{mg C}/(\text{m}^3 \cdot \text{time})$ ] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [ $\text{mg O}_2/(\text{m}^2 \cdot \text{time})$  for periphyton and macrophytes and  $\text{mg O}_2/(\text{m}^3 \cdot \text{time})$ ] 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.

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.

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

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture ( $\text{mg/L}$ ).

Suspended-sediment discharge (tons/day) 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 volume, that passes a section in a given time. It is computed by multiplying discharge times  $\text{mg/L}$  times 0.0027.

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. It is expressed in micromhos per centimeter at  $25^\circ\text{C}$ . Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

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

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emerged 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 of 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 (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer 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-micrometer 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:

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Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexagenia
Species.....Hexagenia limbata
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Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

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

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

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved 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.

Total (as used in tables of chemical analyses):

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.)

Water table is the surface of a ground-water body at which the water is at atmospheric pressure. It is defined by the levels at which water stands in wells that penetrate the water body just far enough to hold standing water.

Water-table aquifer is an unconfined aquifer whose upper boundary is the water table.

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.

WRD is used as an abbreviation for "Water Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

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

#### DOWNSTREAM ORDER AND STATION NUMBERS

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 tributaries. 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 indentation in a list of stations in the front of the report. Each indentation represents one rank. This downstream order and system of indentation 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, partial-record station, and miscellaneous site 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, miscellaneous sites, and other stations; therefore, the station number for a partial-record station or a miscellaneous site indicates downstream-order position in a list made up of all 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 01300500 includes the 2-digit part number "01" plus the 6-digit downstream order number "300500". In a few instances where no gaps were left in the 8-digit numbering sequence, one or two digits were added (making a 9- or 10-digit station number) and (or) a latitude-longitude number was used for identification.



## NUMBERING SYSTEM FOR WELLS

The 8-digit downstream order station numbers are not assigned to wells. The well-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 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 (assigned sequentially) identify the wells within a 1-second grid. See figure 1 below.

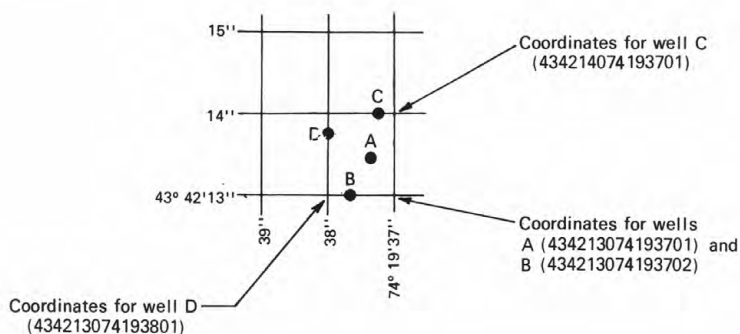


Figure 1. System for numbering wells (latitude and longitude)

## SPECIAL NETWORKS AND PROGRAMS

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 streams 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 described in standard textbooks, in Water-Supply Paper 2175, 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 discharges 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 hydrographers 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 the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some 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 gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrographers, 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.

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 discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in 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 heights 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 of 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 station 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 second 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 the section, "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." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir 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 the period of record, second, information available outside the period of record, and last, those for the current year. 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.

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 line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also 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 the 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 interpretations 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 ft<sup>3</sup>/s; to tenths between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures above 1,000 ft<sup>3</sup>/s. 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.

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

#### Other 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.

#### ACCESS TO WATSTORE DATA

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

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer costs incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's district offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

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

#### EXPLANATION OF WATER-QUALITY RECORDS

##### Classification of Records

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

##### Arrangement of Records

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

##### Descriptive Headings

For continuing record stations, data are preceded by information pertinent to the history of station operation. These descriptive headings give details regarding locations, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Headings for precipitation-quality records include location information and a description of the sample collector.

There is a broad range of water-quality parameters available for most stations whose record exceeds more than a few years operation. Sampling schedules are often intermittent for certain types of data, with analyses available for some but not all years within a station's period of record. An accurate description of the variety of data available is shown by grouping similar parameters into a few general categories, which are listed in the "PERIOD OF RECORD" paragraph. Each category of data is followed by a notation of the water year(s) for which data is available and a letter code describing the frequency of sampling (see following section, "Frequency-of-Sampling Notation"). Thus, "CHEMICAL DATA: 1972-74(c), 1977-81(a).", shows there are at least six analyses each year for the first three years of record, no data for this category in 1975 and 1976, and 1 or 2 samples for each of the five most recent years.

#### Categories of Water-Quality Data

The "PERIOD OF RECORD" paragraph lists the following categories of data to describe information available.

**CHEMICAL DATA:** Usually includes most of the "major ions", and may often include some of the following physical properties: specific conductance, pH, temperature, color, turbidity, dissolved oxygen.

**MINOR ELEMENT DATA:** Comprises the "heavy metals" and some of the "alkaline earth" groups. Determinations often include some but not all of the following: Al, As, Ba, Cd, Cr, Co, Cu, Hg, Li, Ni, Pb, Se, Sn, Sr, Zn.

**RADIOCHEMICAL DATA:** The determinations of the concentration of individual radioactive elements, such as radium 226, cobalt 60, strontium 90, and tritium. This category also includes the gross measurement of radioactivity (alpha, beta, gamma) without regard to the radiochemical species that produce the radioactivity.

**PESTICIDE DATA:** The organic compounds (insecticides and herbicides) used to control insects and plants. Routinely, the analyses searches for traces of between 12 to 22 compounds.

**ORGANIC DATA.** Organic data (other than pesticides) such as, OC, PCB, PCN.

**NUTRIENT DATA:** Constituents containing nitrogen or phosphorus. Results usually include several of the following: nitrate plus nitrite, phosphorus, ammonia nitrogen, organic nitrogen, ammonia nitrogen plus organic nitrogen (Kjeldahl nitrogen).

**BIOLOGICAL DATA:** The identification and concentration of microscopic plant organisms (phytoplankton, periphyton), or enteric bacteria (total coliform, fecal coliform, or fecal streptococcal) living in aquatic habitats.

**SEDIMENT DATA:** Suspended-sediment concentration, suspended-sediment discharge, and particle-size data for discrete samples.

#### Frequency-of-Sampling-Notation

The categories of data given in the "PERIOD OF RECORD" paragraph are followed by the water year(s) for which that kind of data was collected. The amount of data available is specified by the following letter codes:

- |                              |                                    |
|------------------------------|------------------------------------|
| (a) 1 or 2 samples per year. | (d) 10 to 20 samples per year.     |
| (b) 3 to 5 samples per year. | (e) more than 20 samples per year. |
| (c) 6 to 9 samples per year. |                                    |

#### Water Analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

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 several 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. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

Terminology used in reporting chemical constituents is an indication of whether all or only part of a constituent associated with the solids in a water-quality sample is determined by a chemical analysis. (See preceding section, "Definition of Terms.") The "recoverable" in the terms "Suspended, recoverable", "Total, recoverable", and "Recoverable from bottom material" indicates that the constituent was digested by a method that results in the dissolution of only readily soluble substances. Thus, the determination may not represent all of the constituent actually present in the sample. The "total" in the terms "Total", "Suspended, total", and "Total in bottom material" is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

#### Water Temperatures

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

At stations where recording instruments are used, either mean temperatures and/or maximum and minimum temperatures for each day are published.

#### Sediment

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

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily 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 and bed material are included.

### EXPLANATION OF GROUND-WATER LEVEL RECORDS

#### Collection of Data

Ground-water level data consist of water-level measurements made in observation wells. Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 1.

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 measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well; National Geodetic Vertical Datum of 1929 is the datum plane on which the national network of precise levels is based. If known, the altitude of the land-surface datum above National Geodetic Vertical Datum of 1929 is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported as mean daily values, then monthly and yearly means are computed from the daily figures. Water levels in wells not equipped with recording gages are measured periodically with a weighted tape by the U.S. Geological Survey personnel or an observer.

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



Thirty-seven 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, 604 South Pickett St., Alexandria, VA 22304 (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-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
  - 3-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-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 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. Ehlike, 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. I. 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.
  - 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 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.

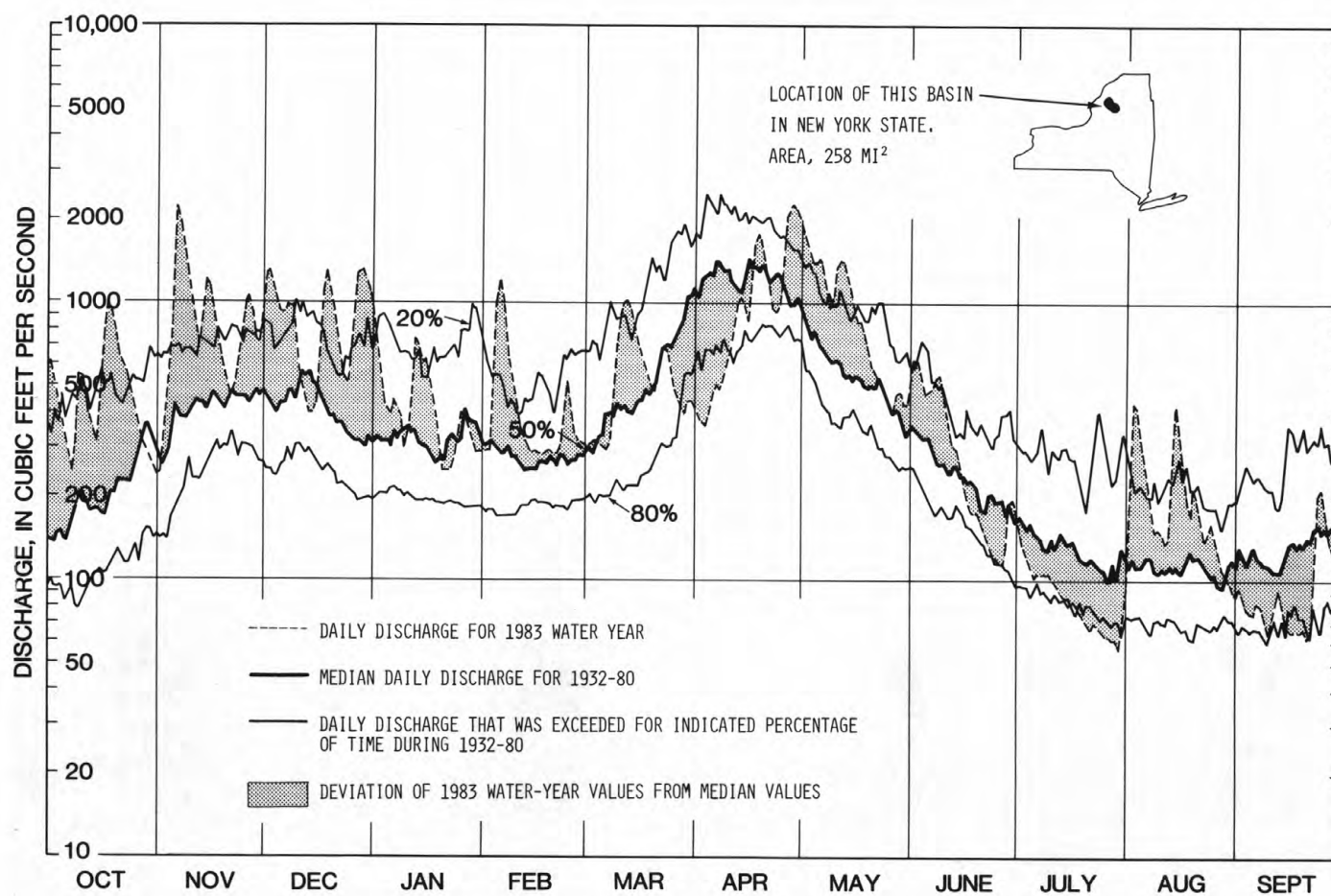


Figure 2.--Hydrographic comparisons, West Branch Oswegatchie River near Harrisville, N.Y.

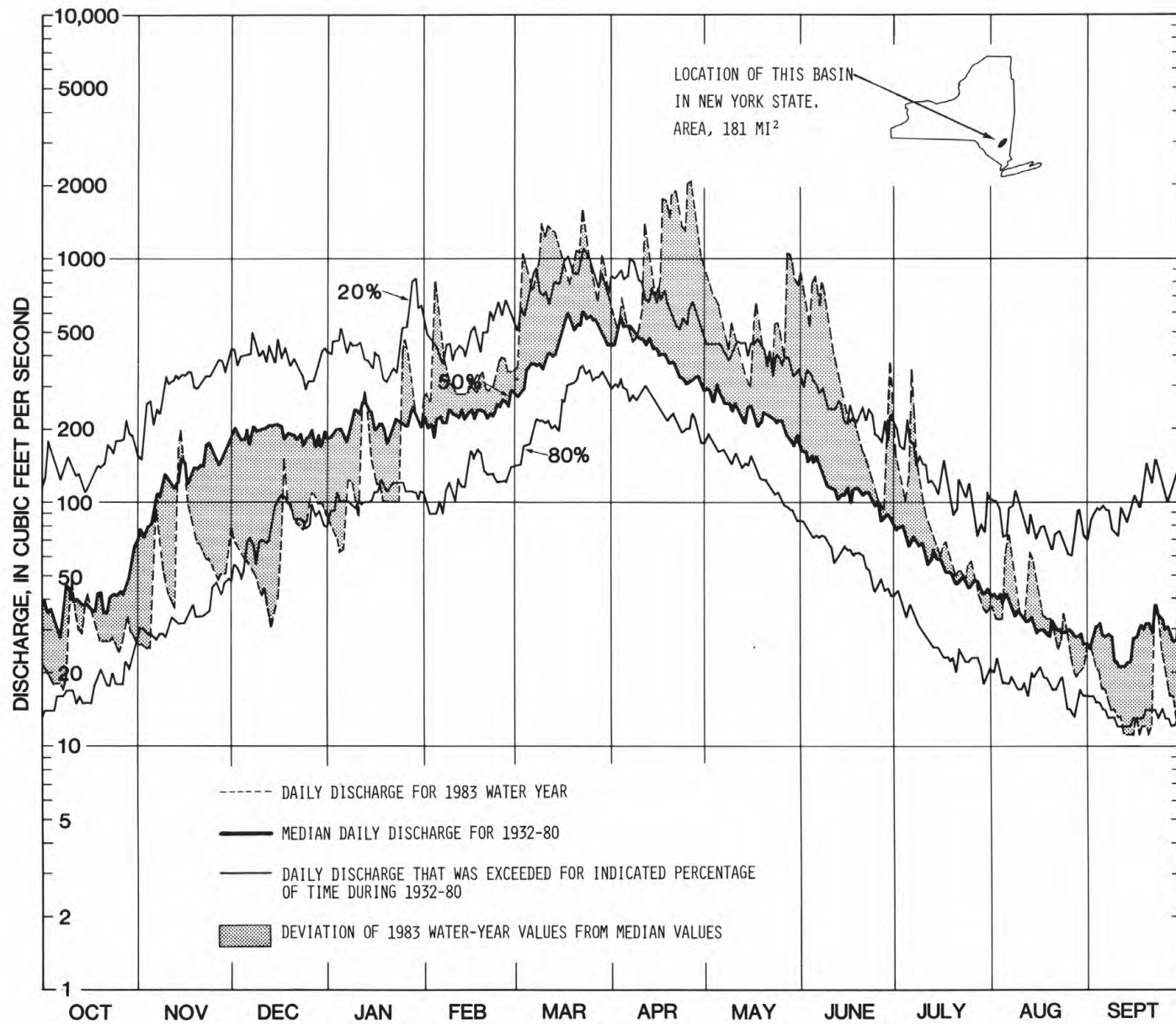
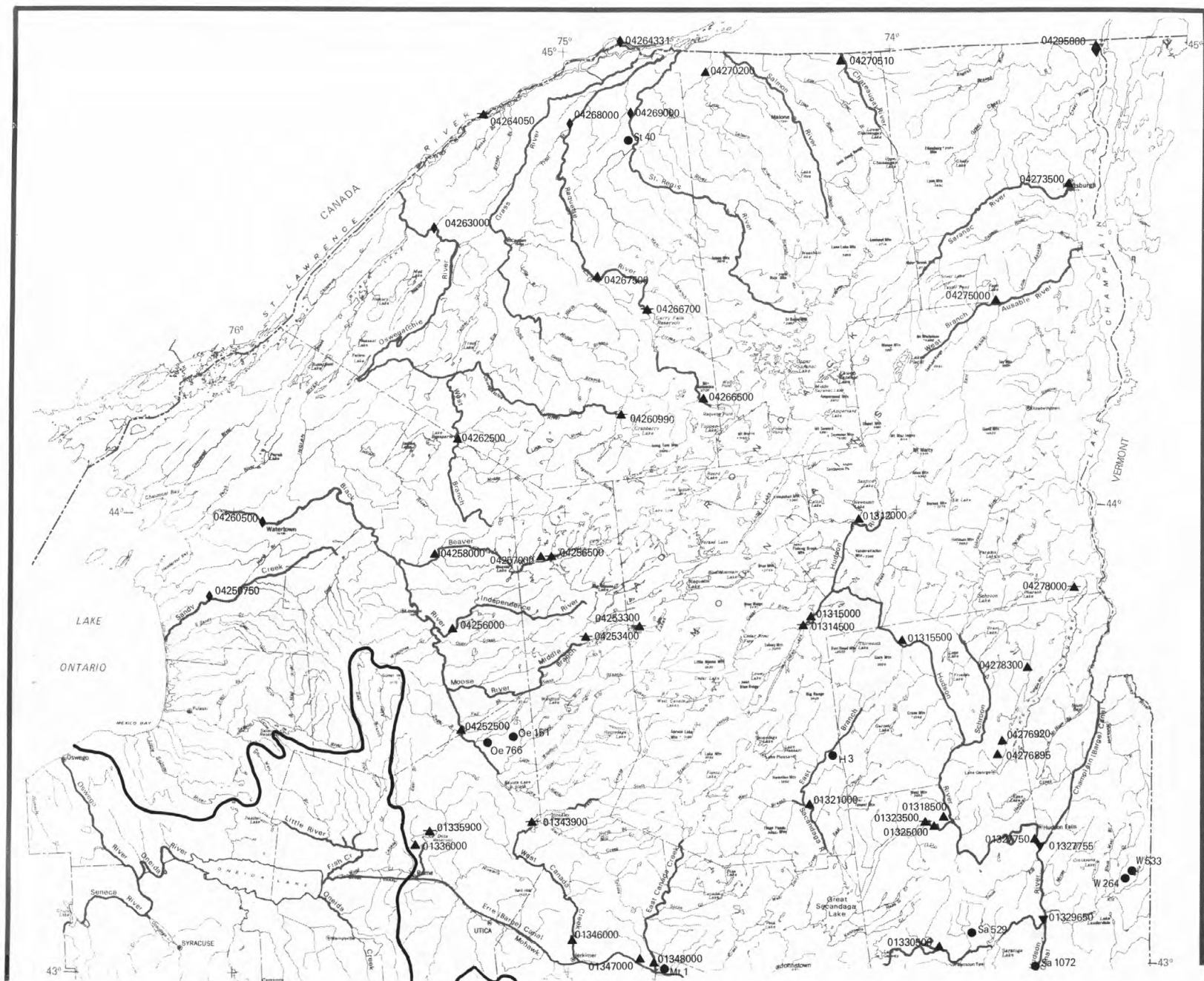


Figure 3.--Hydrographic comparisons, Wappinger Creek near Wappingers Falls, N.Y.





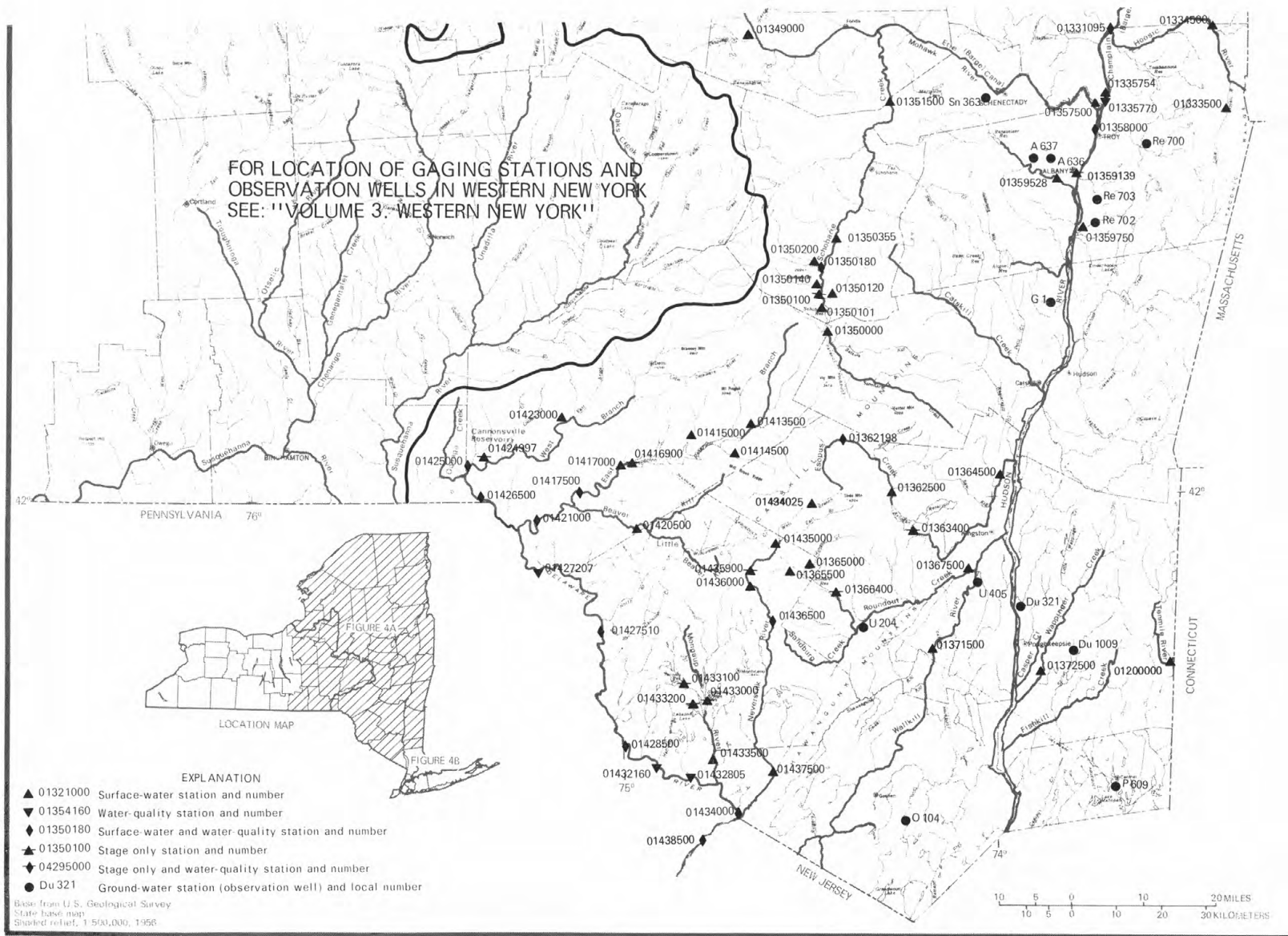


FIGURE 4A.-- LOCATION OF GAGING STATIONS AND OBSERVATION WELLS

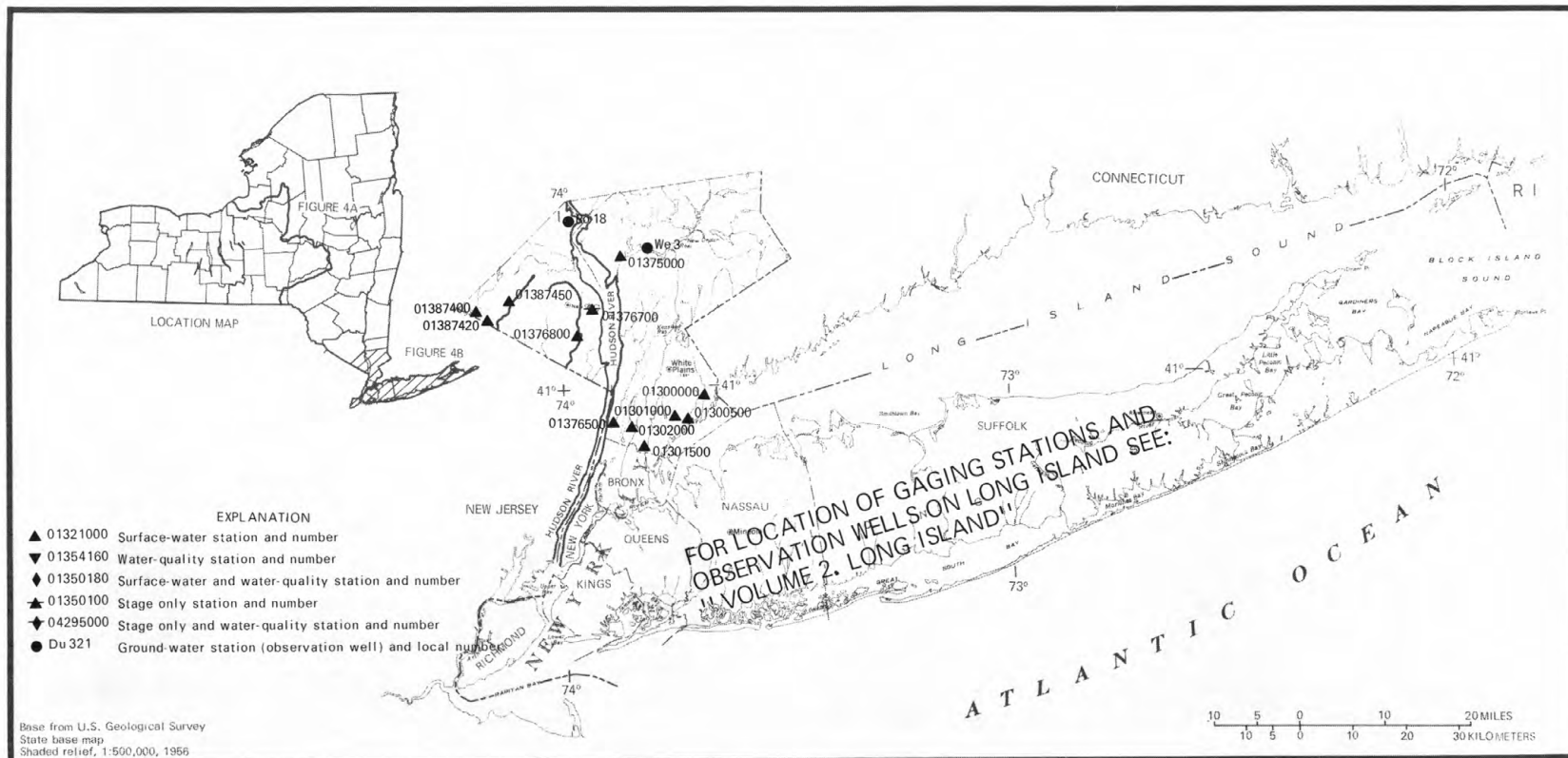


FIGURE 4B.-- LOCATION OF GAGING STATIONS AND OBSERVATION WELLS



## 01200000 TENMILE RIVER NEAR GAYLORDSVILLE, CT

LOCATION.--Lat 41°39'32", long 73°31'44", Dutchess County, New York, Hydrologic Unit 01100005, on right bank 0.1 mi downstream from Deuel Hollow Brook, 1.2 mi upstream from New York-Connecticut State line, 1.7 mi upstream from mouth, and 2.5 mi northwest of Gaylordsville.

DRAINAGE AREA.--203 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for period October to December 1929, published in WSP 1301.

REVISED RECORDS.--WSP 1201: 1939. WSP 1701: 1955-56, 1957(M), 1958-59. WSP 1901: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 304.4 ft, National Geodetic Vertical Datum of 1929, (levels to Connecticut Light and Power Company).

REMARKS.--Records good. Infrequent regulation at low flow. Records of iron, specific conductance, and pH of daily samples for 1958-59 available in Connecticut office, Hartford, Connecticut. Chemical analyses available for water years 1959 (WSP 1641), 1968 (WSP 2091), 1973-74 (WRDC 1973-74), 1975 (WDR CT-75-1), 1980 (WDR CT-80-1), and water temperatures available for water year 1959 (WSP 1641).

AVERAGE DISCHARGE.--54 years, 303 ft<sup>3</sup>/s, 20.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,400 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 14.9 ft, from high-water mark, from rating curve extended above 9,800 ft<sup>3</sup>/s; minimum, 5 ft<sup>3</sup>/s Sept. 8, 1957; minimum gage height, 0.52 ft Sept. 24, 26, 1939; minimum daily discharge, 7 ft<sup>3</sup>/s Oct. 7, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 20	0630	2,540	5.67	Apr. 17	1830	2,260	5.36
Mar. 28	1800	1,550	4.52	Apr. 20	2330	2,930	6.06
Apr. 11	1130	1,840	4.89	Apr. 25	unknown	a*3,000	a*6.2

a About.

Minimum discharge, 16 ft<sup>3</sup>/s Sept. 11, 12, 16, 17, 21, gage height, 0.61 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	44	110	120	326	250	706	900	555	179	42	31
2	35	40	101	114	301	721	632	800	484	152	50	29
3	31	42	92	110	863	968	779	800	426	129	55	26
4	32	40	86	99	1090	821	896	780	656	111	44	23
5	26	52	84	105	732	769	721	750	701	116	80	22
6	42	114	84	149	568	727	632	650	534	342	77	22
7	27	101	86	181	509	837	568	550	609	204	62	21
8	26	86	79	162	480	991	572	500	525	152	51	19
9	79	72	75	147	445	1260	661	480	438	129	42	18
10	110	63	69	133	376	1130	847	470	379	109	37	17
11	75	56	67	438	345	1260	1720	450	339	91	35	17
12	66	50	60	465	307	1190	1280	380	304	80	44	17
13	54	87	58	342	300	1120	1000	352	274	74	58	17
14	49	304	58	260	300	1040	847	329	251	67	51	17
15	50	206	70	220	300	940	742	323	265	69	49	17
16	46	165	105	200	290	842	1090	476	229	85	43	17
17	45	137	268	190	290	758	2130	568	263	74	37	16
18	42	116	174	191	310	701	1990	434	226	63	34	17
19	40	101	150	171	310	1710	1780	372	215	56	35	17
20	41	91	143	160	290	2360	2570	365	199	54	36	17
21	40	84	133	160	280	1900	2690	358	179	52	32	19
22	39	81	124	160	270	2010	2110	342	157	55	30	55
23	37	79	120	208	270	1510	1730	546	139	52	27	59
24	36	75	122	505	290	1200	1580	590	127	59	25	45
25	36	72	139	513	270	1010	2800	476	113	62	23	36
26	50	67	162	441	260	863	2500	408	100	58	23	31
27	61	69	167	369	250	785	1800	790	98	50	22	27
28	63	67	152	313	240	1400	1400	763	215	45	22	25
29	71	87	147	283	---	1200	1200	609	390	42	23	23
30	77	116	139	268	---	918	1000	632	229	44	27	23
31	49	---	126	310	---	795	---	637	---	44	30	---
TOTAL	1515	2764	3550	7487	10862	33986	40973	16880	9619	2899	1246	740
MEAN	48.9	92.1	115	242	388	1096	1366	545	321	93.5	40.2	24.7
MAX	110	304	268	513	1090	2360	2800	900	701	342	80	59
MIN	26	40	58	99	240	250	568	323	98	42	22	16
CFSM	.24	.45	.57	1.19	1.91	5.40	6.73	2.69	1.58	.46	.20	.12
IN.	.28	.51	.65	1.37	1.99	6.23	7.51	3.09	1.76	.53	.23	.14

CAL YR 1982	TOTAL	108978	MEAN	299	MAX	3360	MIN	21	CFSM	1.47	IN	19.97
WTR YR 1983	TOTAL	132521	MEAN	363	MAX	2800	MIN	16	CFSM	1.79	IN	24.28

## BLIND BROOK BASIN

01300000 BLIND BROOK AT RYE, NY

LOCATION.--Lat 40°59'00", long 73°41'14", Westchester County, Hydrologic Unit 02030102, on left bank at Rye, just upstream from bridge on Theodore Fremd Avenue, 0.25 mi southwest of Penn Central Transportation Co. railroad station, and 0.85 mi upstream from mean high tide in Milton Harbor.

DRAINAGE AREA.--9.20 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1943 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 13.05 ft National Geodetic Vertical Datum of 1929 (levels by City of Rye).

REMARKS.--Records fair. Medium and high flows affected by detention reservoir 2 mi upstream (capacity, about 26 acre-ft at spillway level or 50 acre-ft at crest of concrete dam).

AVERAGE DISCHARGE.--39 years (1945-83), 15.6 ft<sup>3</sup>/s, 23.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,320 ft<sup>3</sup>/s June 19, 1972, gage height, 12.44 ft, from floodmark in gage house, from rating curve extended above 800 ft<sup>3</sup>/s on basis of indirect measurement of peak flow; minimum, 0.12 ft<sup>3</sup>/s July 5, 1953, gage height, 0.80 ft, result of temporary regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 406 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 11	0615	410	4.00	Apr. 10	1930	*901	*6.49
Mar. 19	0800	461	4.29	Apr. 16	1900	675	5.41
Mar. 28	0400	458	4.27	Apr. 24	1530	415	4.03
Apr. 3	1345	454	4.25				

Minimum discharge, 0.99 ft<sup>3</sup>/s Oct. 2-4, 6, Sept. 19, 20, 21; minimum gage height, 0.93 ft Sept. 19, 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.7	6.5	3.7	13	24	19	19	23	3.9	1.5	1.5
2	1.1	2.9	6.5	3.7	11	90	17	18	17	3.3	2.1	1.4
3	.99	2.6	5.2	3.5	76	39	207	17	13	3.1	1.8	1.4
4	.99	1.8	5.2	3.3	38	20	59	27	95	2.9	1.5	1.4
5	1.1	7.1	4.7	3.9	17	19	38	16	27	6.5	1.4	1.4
6	1.2	4.7	5.2	16	13	16	27	11	18	9.7	1.4	1.3
7	1.1	2.7	5.0	8.3	14	37	23	10	14	3.7	1.4	1.2
8	1.2	2.4	4.1	5.7	13	52	44	11	12	2.7	1.4	1.1
9	2.7	2.1	3.9	5.0	11	61	75	10	10	2.4	1.3	1.1
10	3.9	1.9	3.7	12	9.3	63	353	10	8.7	2.2	1.3	1.3
11	2.4	1.8	3.7	194	8.0	57	188	9.3	8.0	1.9	12	1.2
12	1.8	2.1	4.1	31	8.0	87	46	9.0	7.1	1.9	24	1.7
13	1.7	72	3.7	14	8.0	44	33	8.3	6.5	1.8	4.5	1.5
14	1.7	11	3.3	10	8.0	26	27	7.7	5.7	1.8	2.6	1.4
15	1.9	6.0	3.5	11	9.0	21	24	9.7	5.2	3.5	1.9	1.3
16	2.1	11	20	11	12	18	283	14	5.0	5.2	1.8	1.2
17	1.7	7.7	16	9.0	16	16	205	28	4.5	2.6	1.8	1.2
18	1.7	4.1	6.5	7.4	27	43	46	9.7	4.7	1.9	1.7	1.2
19	1.5	4.1	5.2	6.5	25	292	116	7.4	4.7	2.4	1.7	1.1
20	1.3	3.3	5.2	5.7	20	57	89	11	7.7	3.3	1.5	1.1
21	1.8	3.3	5.0	5.5	20	88	41	10	5.2	3.9	1.4	3.5
22	1.3	3.1	4.5	5.7	28	56	31	13	4.5	6.0	1.4	11
23	1.4	3.1	4.5	81	31	36	25	76	3.9	2.6	1.4	2.9
24	1.2	2.6	4.7	91	28	24	196	26	3.3	3.7	1.3	1.8
25	4.1	2.4	5.0	31	21	21	146	16	2.9	2.9	1.3	1.5
26	14	2.7	4.5	17	17	18	56	14	2.7	2.1	1.2	1.5
27	4.7	2.4	4.3	13	14	27	36	38	2.9	1.8	1.2	1.4
28	2.6	2.9	4.1	12	14	199	29	19	19	1.7	2.2	1.4
29	2.1	35	4.3	11	---	46	24	17	15	1.5	2.7	1.4
30	2.9	11	3.9	12	---	31	21	52	5.2	1.4	1.8	8.7
31	2.4	---	3.7	23	---	22	---	66	---	1.5	1.5	---
TOTAL	71.78	221.5	169.7	666.9	529.3	1650	2524	610.1	361.4	95.8	86.0	61.1
MEAN	2.32	7.38	5.47	21.5	18.9	53.2	84.1	19.7	12.0	3.09	2.77	2.04
MAX	14	72	20	194	76	292	353	76	95	9.7	24	11
MIN	.99	1.7	3.3	3.3	8.0	16	17	7.4	2.7	1.4	1.2	1.1
CFSM	.25	.80	.60	2.34	2.05	5.78	9.14	2.14	1.30	.34	.30	.22
IN.	.29	.90	.69	2.70	2.14	6.67	10.20	2.47	1.46	.39	.35	.25

CAL YR 1982	TOTAL	4821.54	MEAN	13.2	MAX	417	MIN	.89	CFSM	1.44	IN	19.49
WTR YR 1983	TOTAL	7047.58	MEAN	19.3	MAX	353	MIN	.99	CFSM	2.10	IN	28.49

BEAVER SWAMP BROOK BASIN

25

01300500 BEAVER SWAMP BROOK AT MAMARONECK, NY

LOCATION.--Lat 40°57'21", long 73°43'07", Westchester County, Hydrologic Unit 02030102, on right bank just downstream from bridge on Short Street, in Mamaroneck, 0.2 mi downstream from Brentwood Brook, and 0.2 mi upstream from tidal barrier in Guion Creek, Mamaroneck Harbor.

DRAINAGE AREA.--4.71 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1943 to current year. Prior to October 1967, published as "near Harrison."

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.99 ft National Geodetic Vertical Datum of 1929. Prior to June 8, 1946, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow affected by natural storage in swampy areas above station.

AVERAGE DISCHARGE.--39 years (1945-83), 6.44 ft<sup>3</sup>/s, 18.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 288 ft<sup>3</sup>/s Jan. 21, 1979, gage height, 4.28 ft; minimum, no flow at times during 1944, 1953, 1959, 1964, 1965, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 86 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 10	2130	*155	*2.61	Apr. 16	2200	122	2.21

Minimum discharge, 0.06 ft<sup>3</sup>/s Sept. 21, gage height 0.25 ft; minimum daily, 0.09 ft<sup>3</sup>/s Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	.36	2.7	1.0	5.4	12	8.8	8.4	14	1.3	.26	.26
2	.31	.31	2.1	1.0	5.1	36	7.9	8.0	9.2	1.0	.50	.22
3	.31	.26	1.6	1.0	22	17	53	9.7	7.1	.78	.31	.22
4	.43	.26	2.9	.89	11	11	39	17	31	.50	.26	.17
5	.31	2.9	1.8	1.4	6.8	9.2	17	8.0	15	1.8	.26	.22
6	.26	.78	1.6	5.7	5.7	7.9	12	6.2	8.8	3.0	.26	.22
7	.31	.43	1.4	2.9	6.4	16	9.2	5.6	6.8	1.2	.26	.14
8	.31	.36	1.2	1.8	5.7	21	18	5.4	5.4	.90	.22	.11
9	1.1	.31	1.1	1.4	4.8	23	31	5.8	4.0	.89	.17	.11
10	.43	.26	1.0	6.1	4.2	23	78	5.1	3.5	.67	.14	.14
11	.26	.26	1.1	53	3.7	25	113	4.5	3.1	.58	6.8	.14
12	.26	.31	1.1	18	3.5	35	35	4.2	2.7	.58	6.1	.50
13	.26	21	1.0	7.1	3.5	19	18	4.0	2.9	.58	1.2	.50
14	.36	7.1	.89	5.1	3.5	13	15	4.0	2.3	.50	.67	.17
15	.31	2.3	.89	5.4	4.0	11	12	5.1	1.9	1.9	.50	.11
16	.36	1.4	6.8	5.7	4.3	9.2	55	7.1	1.8	1.4	.43	.11
17	.22	1.1	4.5	4.3	6.1	7.9	86	7.5	1.5	.58	.36	.22
18	.17	1.0	2.3	3.7	8.8	18	30	4.5	1.5	.43	.36	.14
19	.14	.89	1.6	3.1	8.8	61	38	4.0	1.5	.60	.31	.11
20	.22	.78	1.6	2.7	7.5	31	43	6.1	2.5	.78	.26	.09
21	.67	.67	1.5	2.5	7.5	30	21	8.3	2.3	3.5	.22	1.9
22	.26	.67	1.2	2.5	9.2	26	15	9.2	1.9	2.7	.22	4.0
23	.17	.67	1.2	31	11	15	12	33	1.6	.67	.26	.58
24	.17	.58	1.4	40	11	11	42	13	1.5	1.6	.22	.31
25	2.3	.50	1.2	14	9.2	9.7	58	7.5	1.4	.78	.22	.22
26	7.1	.50	1.2	9.2	7.5	8.3	27	7.1	1.1	.50	.22	.17
27	1.4	.50	1.2	7.1	6.4	13	17	15	1.1	.43	.22	.17
28	.67	.67	1.1	4.8	6.4	45	12	7.6	6.4	.31	3.3	.17
29	.43	12	1.2	4.2	---	20	10	7.5	6.1	.31	1.9	.17
30	.36	3.5	1.1	4.8	---	12	9.0	22	2.9	.31	.58	7.1
31	.43	---	1.0	7.9	---	10	---	32	---	.31	.36	---
TOTAL	20.72	62.63	52.48	259.29	199.0	606.2	941.9	292.4	152.8	31.39	27.35	18.69
MEAN	.67	2.09	1.69	8.36	7.11	19.6	31.4	9.43	5.09	1.01	.88	.62
MAX	7.1	21	6.8	53	22	61	113	33	31	3.5	6.8	7.1
MIN	.14	.26	.89	.89	3.5	7.9	7.9	4.0	1.1	.31	.14	.09
CFSM	.14	.44	.36	1.78	1.51	4.16	6.67	2.00	1.08	.21	.19	.13
IN.	.16	.49	.41	2.05	1.57	4.79	7.44	2.31	1.21	.25	.22	.15
CAL YR 1982	TOTAL	1842.44	MEAN	5.05	MAX	92	MIN	.14	CFSM	1.07	IN	14.55
WTR YR 1983	TOTAL	2664.85	MEAN	7.30	MAX	113	MIN	.09	CFSM	1.55	IN	21.04



## MAMARONECK RIVER BASIN

01301000 MAMARONECK RIVER AT MAMARONECK, NY

LOCATION.--Lat 40°57'14", long 73°44'06", Westchester County, Hydrologic Unit 02030102, on left bank in Mamaroneck, 113 ft downstream from bridge on Halstead Avenue, 700 ft downstream from Sheldrake River, and 0.3 mi upstream from mean high tide in Mamaroneck Harbor.

DRAINAGE AREA.--23.4 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1943 to July 1953, September 1954 to current year.

REVISED RECORDS.--WSP 1502: 1944(M), 1951(M). WDR NY-76-1; 1972(M), 1973(M), 1974(M), 1975(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 11.46 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 10, 1954, water-stage recorder at same site at datum 0.41 ft higher.

REMARKS.--Records fair. Storage in former water-supply reservoir on Mamaroneck River, effect unknown.

AVERAGE DISCHARGE.--37 years (1945-52, 1955-83), 34.9 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft<sup>3</sup>/s Sept. 26, 1975, gage height, 10.15 ft, from rating curve extended above 2,000 ft<sup>3</sup>/s on basis of indirect measurement of peak flow at 10.15 ft; minimum, 0.06 ft<sup>3</sup>/s Sept. 30, 1965; minimum daily, 0.10 ft<sup>3</sup>/s Sept. 29, 30, 1965; minimum gage height since Sept. 9, 1954, 0.10 ft July 21, 22, Aug. 18, 19, 1957, Aug. 14, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Backwater from hurricane wave reached a stage of about 11.5 ft present datum, Sept. 21, 1938, from information by officials of village of Mamaroneck.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,810 ft<sup>3</sup>/s Apr. 10, gage height, 5.63 ft; minimum, 1.0 ft<sup>3</sup>/s many days in September, gage height, 0.23 ft; minimum daily, 1.2 ft<sup>3</sup>/s many days in September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	3.4	12	6.0	27	65	58	54	63	8.9	2.2	2.5
2	3.4	3.1	12	5.6	40	213	51	51	48	7.9	6.0	2.5
3	3.1	3.8	12	5.6	150	93	396	50	40	6.9	2.8	2.2
4	3.1	3.4	26	5.6	62	71	172	91	176	6.0	2.2	1.9
5	2.8	18	25	6.5	42	57	127	45	68	24	2.2	1.7
6	2.8	6.9	19	35	35	42	93	38	52	28	2.5	1.7
7	2.8	4.1	8.4	13	39	78	66	34	44	16	2.5	1.5
8	2.8	3.4	6.5	9.4	35	111	119	33	38	14	1.9	1.2
9	6.0	3.1	6.5	8.4	30	119	184	35	33	13	1.9	1.2
10	6.0	2.8	6.0	16	25	130	736	30	29	13	1.7	1.2
11	3.8	2.8	6.5	316	21	111	426	28	20	9.4	29	1.2
12	3.4	3.4	7.4	62	20	181	172	26	19	4.9	58	2.2
13	12	141	6.5	45	20	95	117	25	16	4.1	15	5.6
14	37	21	6.5	31	20	71	80	24	16	4.5	9.4	2.5
15	6.9	12	6.9	24	22	65	82	29	14	8.4	4.1	1.5
16	5.6	8.9	42	27	27	52	536	38	13	15	3.1	1.2
17	5.2	6.9	21	20	37	44	433	44	12	4.5	2.8	1.7
18	4.9	5.6	11	18	54	127	162	25	12	3.8	2.8	1.5
19	4.9	5.6	9.4	15	50	479	284	30	12	4.5	3.4	1.2
20	3.1	5.2	9.4	12	42	172	229	39	12	9.4	2.5	1.2
21	7.4	5.2	8.4	11	43	255	125	42	12	11	1.9	4.9
22	4.5	5.2	7.9	12	54	160	89	54	11	26	1.7	35
23	2.5	4.9	7.4	167	55	101	75	167	9.4	4.5	1.9	4.9
24	2.2	5.2	8.4	162	52	80	332	62	8.9	8.9	1.9	2.5
25	8.4	5.6	8.4	82	44	65	306	43	8.4	5.2	1.5	1.9
26	39	4.1	7.4	55	38	55	167	39	7.4	3.4	1.5	1.7
27	8.4	3.8	6.9	31	33	76	123	82	7.4	2.8	1.5	1.7
28	5.2	4.5	6.5	27	32	367	95	45	44	2.5	5.2	1.7
29	4.1	73	6.9	24	---	148	70	45	37	2.5	14	3.8
30	4.5	19	6.5	26	---	99	62	113	12	2.5	3.8	60
31	3.8	---	6.0	47	---	68	---	155	---	2.2	2.8	---
TOTAL	213.7	394.9	340.7	1325.1	1149	3850	5967	1616	894.5	277.7	193.7	155.5
MEAN	6.89	13.2	11.0	42.7	41.0	124	199	52.1	29.8	8.96	6.25	5.18
MAX	39	141	42	316	150	479	736	167	176	28	58	60
MIN	2.2	2.8	6.0	5.6	20	42	51	24	7.4	2.2	1.5	1.2

CAL YR 1982 TOTAL 11411.9 MEAN 31.3 MAX 905 MIN 2.2  
WTR YR 1983 TOTAL 16377.8 MEAN 44.9 MAX 736 MIN 1.2

## HUTCHINSON RIVER BASIN

27

01301500 HUTCHINSON RIVER AT PELHAM, NY

LOCATION.--Lat 40°54'41", long 73°48'55", Westchester County, Hydrologic Unit 02030102, on right bank in Pelham, just upstream from Penn Central Transportation Co. bridge, 100 ft downstream from Pelham Lake, and 1.5 mi west of New Rochelle.

DRAINAGE AREA.--5.76 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1943 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.92 ft National Geodetic Vertical Datum of 1929 (levels by county of Westchester).

REMARKS.--Records fair. Flow controlled by Pelham Lake and three reservoirs above station.

AVERAGE DISCHARGE.--39 years, 7.02 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 526 ft<sup>3</sup>/s Aug. 28, 1971, gage height, 5.18 ft, from rating curve extended above 200 ft<sup>3</sup>/s, maximum gage height, 5.38 ft Jan. 21, 1979; minimum, 0.01 ft<sup>3</sup>/s July 27, 1957; minimum gage height, 1.86 ft Aug. 2, 5, 1955; minimum daily discharge, 0.02 ft<sup>3</sup>/s Aug. 2-6, 1955, July 26, 27, 1957, Oct. 26-30, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 358 ft<sup>3</sup>/s Apr. 10, gage height, 4.80 ft; minimum, 0.12 ft<sup>3</sup>/s Sept. 11, 12, 15, gage height, 2.02 ft; minimum gage height, 1.99 ft Oct. 19, 20; minimum daily, 0.15 ft<sup>3</sup>/s Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	1.7	5.3	1.4	4.8	9.9	9.9	9.6	14	3.5	.80	1.1
2	.62	1.7	3.9	1.3	4.1	38	8.9	8.5	8.5	2.5	.80	.80
3	.47	1.9	2.9	1.1	20	17	78	8.2	6.7	1.7	.54	.54
4	.40	2.3	2.5	1.1	11	9.2	43	14	27	1.1	.54	.54
5	.36	5.8	2.1	2.8	6.7	8.2	18	8.9	14	5.6	.54	1.0
6	.32	2.1	2.5	9.2	4.6	6.1	13	7.0	7.9	7.9	.40	2.9
7	.32	2.5	1.9	5.3	4.8	13	12	5.8	6.1	4.4	.62	.41
8	.47	1.4	1.7	3.3	5.1	18	23	5.8	5.3	2.8	.54	.26
9	.71	1.0	1.7	2.5	4.4	19	35	5.8	4.8	1.6	.47	.24
10	.47	1.0	1.4	6.4	3.5	17	147	5.6	4.4	.91	.36	.21
11	.36	.91	1.6	45	2.8	18	115	5.1	3.7	.80	11	.15
12	.28	.91	1.3	14	2.8	32	28	4.8	3.1	.62	8.5	.56
13	.32	36	.91	6.1	2.8	16	18	4.6	3.1	.54	5.1	1.1
14	.47	18	.91	3.9	2.8	11	14	4.1	3.1	.54	3.3	.29
15	.54	6.1	.91	3.9	3.0	7.9	12	5.3	3.1	2.1	1.9	.17
16	.36	3.5	7.6	4.8	3.7	7.9	107	8.2	2.8	1.6	1.7	.20
17	.32	2.3	7.9	3.9	5.1	7.3	109	9.9	2.1	.47	2.1	.22
18	.36	1.6	4.1	2.9	7.9	29	29	6.4	2.1	.54	3.1	.22
19	.36	1.1	2.5	2.5	7.6	86	42	4.8	1.9	.91	1.9	.21
20	.36	1.0	2.1	2.1	6.4	28	42	5.6	1.9	2.8	1.3	.26
21	1.4	.91	1.7	1.9	6.4	34	22	13	2.3	6.1	1.0	2.1
22	.62	.91	1.6	1.7	7.0	29	16	16	2.3	7.0	.91	6.7
23	.62	.80	1.6	33	7.6	14	13	42	2.3	4.4	.80	1.1
24	.71	1.0	1.9	36	7.6	9.9	54	18	1.9	4.4	.54	.94
25	5.1	.91	1.4	11	6.7	8.5	65	8.9	1.4	2.9	.47	.68
26	9.6	1.6	1.4	6.4	5.6	7.9	30	7.3	1.3	2.1	.47	.65
27	4.8	1.4	1.4	4.6	4.8	17	18	12	1.4	1.4	.71	.62
28	4.6	2.5	1.4	3.9	4.8	56	14	8.5	8.5	1.0	3.1	.59
29	3.3	16	1.3	3.5	---	23	11	7.9	9.6	.80	2.8	.45
30	2.3	8.2	1.4	4.8	---	14	11	24	5.3	.80	1.1	8.6
31	1.7	---	1.7	6.4	---	11	---	43	---	.80	1.0	---
TOTAL	43.24	127.05	72.53	236.7	164.4	622.8	1157.8	338.6	161.9	74.63	58.41	33.81
MEAN	1.39	4.24	2.34	7.64	5.87	20.1	38.6	10.9	5.40	2.41	1.88	1.13
MAX	9.6	36	7.9	45	20	86	147	43	27	7.9	11	8.6
MIN	.28	.80	.91	1.1	2.8	6.1	8.9	4.1	1.3	.47	.36	.15
CAL YR 1982	TOTAL	2198.35	MEAN	6.02	MAX	145	MIN	.20				
WTR YR 1983	TOTAL	3091.87	MEAN	8.47	MAX	147	MIN	.15				

## BRONX RIVER BASIN

01302000 BRONX RIVER AT BRONXVILLE, NY

LOCATION.--Lat 40°56'09", long 73°50'10", Westchester County, Hydrologic Unit 02030102, on right bank in Bronxville, just upstream from Penn Central Transportation Co. bridge, and 800 ft downstream from Grassy Sprain Brook.

DRAINAGE AREA.--26.5 mi<sup>2</sup>, not including 18.1 mi<sup>2</sup>, from which the entire flow is diverted for municipal water supply and drainage purposes.

PERIOD OF RECORD.--November 1943 to current year.

REVISED RECORDS.--WSP 1382: Drainage area. WDR NY 1971: 1961-67(P), 1968(M), 1970(M). WDR NY 1972: 1969(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 73.74 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Diversions from 18.1 mi<sup>2</sup> for municipal water supply and flood control use. Included in these diversions is drainage from 12.8 mi<sup>2</sup> from Kensico Reservoir for City of New York, 4.58 mi<sup>2</sup> from Grassy Sprain Reservoir for Yonkers, 0.67 mi<sup>2</sup> for White Plains, and 0.1 mi<sup>2</sup> for flood control from outflow from Grassy Sprain Reservoir.

AVERAGE DISCHARGE.--39 years (1945-83), 41.4 ft<sup>3</sup>/s, 21.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft<sup>3</sup>/s June 19, 1972, gage height, 9.63 ft from rating curve extended above 1,200 ft<sup>3</sup>/s on basis of flow through culvert computation of peak flow; minimum, 1.0 ft<sup>3</sup>/s Sept. 10, 1944, gage height, 0.14 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 19	0515	710	4.23	Apr. 10	1745	*1,270	*6.32
Mar. 28	0200	878	4.90	Apr. 16	1930	1,090	5.70
Apr. 3	1000	737	4.34	Apr. 24	1300	672	4.07

Minimum discharge, 4.7 ft<sup>3</sup>/s Oct. 17, gage height, 0.36 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	8.7	16	10	23	62	86	107	52	19	30	11
2	5.8	8.4	16	10	23	159	75	98	43	16	56	10
3	5.6	8.4	13	9.8	135	54	364	90	39	16	14	10
4	5.2	8.8	13	10	43	44	161	112	172	16	14	10
5	5.6	46	12	15	30	43	114	82	58	93	14	10
6	6.0	14	15	62	27	38	98	72	45	49	14	11
7	6.0	9.1	11	18	32	75	89	65	44	21	13	11
8	5.9	8.5	10	13	30	91	158	64	39	18	11	11
9	19	8.4	9.6	11	26	83	203	59	34	16	12	11
10	9.8	7.7	8.3	27	24	101	588	52	32	15	11	10
11	6.2	8.6	8.0	224	21	88	357	49	31	14	81	8.7
12	5.9	8.3	7.8	34	20	152	203	47	30	15	85	12
13	7.1	203	8.2	23	20	73	170	43	29	16	19	19
14	9.1	31	8.3	20	20	59	149	42	29	15	14	9.6
15	7.7	17	9.0	19	21	54	127	50	28	29	11	8.7
16	6.7	13	56	18	27	48	591	78	28	31	11	7.9
17	5.9	13	27	17	37	44	379	68	26	14	11	8.7
18	6.2	12	15	16	46	161	199	48	24	13	13	8.7
19	7.0	11	13	15	37	446	288	45	23	20	12	7.9
20	7.3	11	12	15	32	142	247	50	23	23	10	7.9
21	16	11	11	14	33	262	168	69	23	48	10	22
22	6.5	10	9.6	14	37	169	147	55	20	55	9.6	88
23	5.3	10	10	164	40	115	133	145	20	14	11	12
24	6.5	9.3	12	85	43	99	371	58	20	29	12	9.1
25	20	8.0	11	34	38	90	334	41	17	15	11	7.9
26	61	8.1	10	27	35	79	199	45	16	11	11	8.3
27	12	7.9	9.2	24	32	128	164	90	16	11	10	7.5
28	8.2	8.8	9.4	22	32	420	147	43	96	10	93	7.1
29	7.6	87	9.9	21	---	147	131	49	53	11	63	6.7
30	8.2	24	10	27	---	110	119	152	21	10	19	96
31	8.1	---	10	42	---	96	---	119	---	10	12	---
TOTAL	304.0	640.0	400.3	1060.8	964	3732	6559	2187	1131	693	717.6	468.7
MEAN	9.81	21.3	12.9	34.2	34.4	120	219	70.5	37.7	22.4	23.1	15.6
MAX	61	203	56	224	135	446	591	152	172	93	93	96
MIN	5.2	7.7	7.8	9.8	20	38	75	41	16	10	9.6	6.7
CFSM	.37	.80	.49	1.29	1.30	4.53	8.26	2.66	1.42	.85	.87	.59
IN.	.43	.90	.56	1.49	1.35	5.24	9.21	3.07	1.59	.97	1.01	.66

CAL YR 1982	TOTAL	11746.6	MEAN	32.2	MAX	490	MIN	5.2	CFSM	1.22	IN	16.49
WTR YR 1983	TOTAL	18857.4	MEAN	51.7	MAX	591	MIN	5.2	CFSM	1.95	IN	26.47



## HUDSON RIVER BASIN

29

01312000 HUDSON RIVER NEAR NEWCOMB, NY

LOCATION.--Lat 43°58'00", long 74°07'55", Essex County, Hydrologic Unit 02020001, on right bank 30 ft downstream from bridge on State Highway 28N, 0.5 mi downstream from outlet of Harris Lake, 2 mi east of Newcomb, and 4 mi upstream from Wolf Creek.

DRAINAGE AREA.--192 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1925 to October 1982, January 1983 to current year.

REVISED RECORDS.--WSP 696: 1928(M). WSP 711: 1930(m).

GAGE.--Water-stage recorder. Datum of gage is 1,550.38 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 6, 1931, nonrecording gage at site 125 ft downstream at same datum. Aug. 6, 1931 to Nov. 4, 1960, water-stage recorder on left bank at same site and datum.

REMARKS.--Records good except those under 250 ft<sup>3</sup>/s, which are fair. Flow slightly regulated by small reservoirs above station.

AVERAGE DISCHARGE.--57 years (1926-82), 396 ft<sup>3</sup>/s, 28.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,440 ft<sup>3</sup>/s Jan. 1, 1949, gage height, 11.40 ft; minimum, 11 ft<sup>3</sup>/s Sept. 3, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,020 ft<sup>3</sup>/s May 2, gage height, 7.67 ft, only peak above base of 2,500 ft<sup>3</sup>/s; minimum, 44 ft<sup>3</sup>/s Sept. 17, gage height, 0.84 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	319			---	137	119	213	2880	1190	124	175	87
2	271			---	134	119	208	3740	1000	113	517	81
3	235			---	194	121	217	3210	754	104	680	77
4	203			---	660	119	237	2960	608	97	452	73
5	176			---	918	121	262	2460	577	90	296	71
6	152			---	646	125	287	1780	546	94	227	68
7	138			---	472	148	315	1300	603	101	256	66
8	225			---	368	187	394	1060	614	94	237	62
9	448			---	296	222	611	1320	517	89	215	59
10	480			---	260	251	660	1390	417	83	217	58
11	402			---	235	306	777	1140	345	78	196	60
12	329			---	215	357	833	955	290	76	242	59
13	277			---	198	347	728	838	251	73	417	56
14	248			---	187	302	642	838	222	71	388	52
15	242			---	175	290	633	921	198	67	290	49
16	302			---	167	281	964	984	178	66	215	47
17	376			---	160	290	1550	849	203	61	171	46
18	372			---	154	299	1450	652	242	58	150	48
19	333			128	150	368	1130	507	217	56	137	49
20	306			137	142	722	890	456	194	52	127	48
21	---			129	137	970	706	546	169	51	115	52
22	---			123	137	912	580	551	144	60	106	150
23	---			125	137	760	547	507	127	60	109	232
24	---			158	135	563	611	724	113	58	107	205
25	---			205	132	429	1270	849	103	65	98	162
26	---			215	128	340	2080	685	97	69	93	133
27	---			203	125	290	1900	685	127	66	87	119
28	---			187	122	271	1610	955	173	61	83	107
29	---			169	---	257	1710	854	171	59	79	96
30	---			152	---	230	1920	709	144	62	81	87
31	---			144	---	220	---	1010	---	66	87	---
TOTAL	---			---	6921	10336	25935	38315	10534	2324	6650	2559
MEAN	---			---	247	333	865	1236	351	75.0	215	85.3
MAX	---			---	918	970	2080	3740	1190	124	680	232
MIN	---			---	122	119	208	456	97	51	79	46
CFSM	---			---	1.29	1.73	4.51	6.44	1.83	.39	1.12	.44
IN.	---			---	1.34	2.00	5.02	7.42	2.04	.45	1.29	.50

## HUDSON RIVER BASIN

01314500 INDIAN LAKE NEAR INDIAN LAKE, NY

LOCATION.--Lat 43°45'20", long 74°16'35", Hamilton County, Hydrologic Unit 02020001, at Indian Lake Dam on Indian River, and 2.0 mi south of village of Indian Lake.

DRAINAGE AREA.--131 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1900 to current year. Prior to October 1956, published as "Indian Lake Reservoir near Indian Lake."

GAGE.--Nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by masonry dam, completed in 1898. Usable capacity, about 4.500 bil ft<sup>3</sup> at elevation, 1,651.29 ft (crest of spillway). Sills of double sluice gates at lowest outlet at elevation 1,615.50 ft. Dead storage unknown. Water is used for power development, for improvement of navigation in lower Hudson River, and to compensate for flow diverted from Hudson River at Glens Falls into Champlain (Barge) Canal.

COOPERATION.--Gage-height record furnished by Indian River Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 1,656.71 ft May 28, 1913, contents, 5.781 bil ft<sup>3</sup>; minimum observed, 1,616.81 ft, estimated, Feb. 13, 1948, contents, 0.20 bil ft<sup>3</sup>.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 1,651.84 ft May 6, contents, 4.770 bil ft<sup>3</sup>; minimum observed, 1,637.58 ft Mar. 7, contents 2.352 bil ft<sup>3</sup>.

Capacity table, current water year  
(elevation, in feet and capacity, in billions of cubic feet)

1,635.0	1.958	1,643.0	3.221
1,636.0	2.110	1,648.0	4.068
1,638.0	2.417	1,653.0	5.007

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1646.09	1643.10	1640.93	1641.66	1640.55	1638.28	1638.58	1649.44	1650.10	1649.16	1648.76	1647.53
2	1646.01	1642.96	1640.83	1641.69	1640.47	1638.13	1638.64	1650.28	1650.08	1649.17	1648.87	1647.53
3	1645.93	1642.74	1640.93	1641.69	1640.45	1637.99	1638.71	1651.01	1650.01	1649.19	1648.83	1647.55
4	1645.81	1642.56	1640.86	1641.68	1641.08	1637.88	1638.78	1651.55	1649.90	1649.21	1648.74	1647.57
5	1645.73	1642.68	1640.82	1641.62	1641.51	1637.77	1638.87	1651.82	1649.81	1649.22	1648.65	1647.58
6	1645.65	1642.99	1640.79	1641.62	1641.66	1637.64	1638.98	1651.84	1649.72	1649.22	1648.55	1647.55
7	1645.57	1642.95	1640.76	1641.60	1641.68	1637.58	1639.11	1651.81	1649.74	1649.22	1648.44	1647.53
8	1645.70	1642.85	1640.69	1641.54	1641.75	1637.61	1639.28	1651.73	1649.71	1649.22	1648.31	1647.55
9	1645.83	1642.70	1640.57	1641.50	1641.61	1637.68	1639.68	1651.71	1649.59	1649.22	1648.20	1647.51
10	1645.85	1642.54	1640.61	1641.45	1641.48	1637.72	1639.95	1651.72	1649.51	1649.23	1648.08	1647.50
11	1645.81	1642.42	1640.48	1641.47	1641.29	1637.82	1640.44	1651.68	1649.41	1649.23	1647.94	1647.48
12	1645.75	1642.22	1640.40	1641.57	1641.16	1637.90	1640.89	1651.62	1649.29	1649.22	1648.00	1647.45
13	1645.63	1642.38	1640.32	1641.62	1640.99	1637.96	1641.31	1651.52	1649.20	1649.22	1648.00	1647.36
14	1645.53	1642.38	1640.22	1641.65	1640.82	1637.90	1641.61	1651.44	1649.12	1649.22	1647.91	1647.29
15	1645.39	1642.36	1640.15	1641.61	1640.67	1637.88	1641.82	1651.35	1649.06	1649.17	1647.81	1647.25
16	1645.39	1642.24	1640.19	1641.56	1640.49	1637.84	1642.41	1651.25	1649.03	1649.22	1647.70	1647.21
17	1645.35	1642.10	1640.50	1641.53	1640.29	1637.83	1643.55	1651.15	1649.04	1649.22	1647.57	1647.13
18	1645.24	1641.93	1640.73	1641.49	1640.16	1637.87	1644.15	1651.03	1649.05	1649.21	1647.49	1647.08
19	1645.18	1641.80	1640.82	1641.36	1639.99	1637.91	1644.53	1650.88	1649.06	1649.20	1647.48	1647.05
20	1645.08	1641.74	1640.86	1641.27	1639.81	1638.10	1644.87	1650.83	1649.03	1649.18	1647.43	1646.97
21	1645.01	1641.49	1640.85	1641.16	1639.63	1638.23	1645.09	1650.74	1649.02	1649.13	1647.39	1646.88
22	1644.82	1641.34	1640.87	1641.08	1639.46	1638.37	1645.27	1650.63	1649.03	1649.08	1647.38	1647.03
23	1644.63	1641.30	1640.89	1641.00	1639.29	1638.49	1645.44	1650.55	1649.03	1648.98	1647.39	1647.00
24	1644.53	1641.29	1640.88	1641.03	1639.14	1638.43	1645.69	1650.54	1649.02	1648.96	1647.40	1646.90
25	1644.40	1641.31	1640.89	1641.02	1638.96	1638.41	1646.34	1650.55	1649.03	1649.01	1647.40	1646.79
26	1644.60	1641.36	1641.07	1640.98	1638.77	1638.39	1647.41	1650.46	1649.06	1648.96	1647.41	1646.72
27	1644.08	1641.21	1641.15	1640.94	1638.52	1638.37	1647.90	1650.36	1649.11	1648.93	1647.42	1646.62
28	1643.90	1641.16	1641.31	1640.86	1638.44	1638.39	1648.11	1650.23	1649.12	1648.85	1647.42	1646.48
29	1643.74	1641.07	1641.40	1640.79	---	1638.43	1648.37	1650.09	1649.14	1648.76	1647.42	1646.38
30	1643.57	1640.91	1641.56	1640.71	---	1638.48	1648.61	1650.05	1649.15	1648.64	1647.42	1646.26
31	1643.29	---	1641.62	1640.63	---	1638.53	---	1650.07	---	1648.58	1647.48	---
MEAN	1645.13	1642.07	1640.80	1641.33	1640.36	1638.06	1642.81	1650.97	1649.34	1649.10	1647.88	1647.16
MAX	1646.09	1643.10	1641.62	1641.69	1641.75	1638.53	1648.61	1651.84	1650.10	1649.23	1648.87	1647.58
MIN	1643.29	1640.91	1640.15	1640.63	1638.44	1637.58	1638.58	1649.44	1649.02	1648.58	1647.38	1646.26
#	3.256	2.880	3.010	2.816	2.466	2.513	4.262	4.440	4.262	4.192	3.984	3.761
**	-182.2	-145.1	+45.8	-72.4	-144.7	+17.5	+674.8	+66.5	-68.7	-26.1	-77.6	-86.0
CAL YR 1982	MEAN	1644.02	MAX	1650.52	MIN	1634.47	**	-12.6				
WTR YR 1983	MEAN	1644.61	MAX	1651.84	MIN	1637.58	**	+0.54				

\* Contents, in billions of cubic feet, at 2400 hours on last day of month, by interpolation.  
\*\* Change in contents, equivalent in cubic feet per second.

## HUDSON RIVER BASIN

31

01315000 INDIAN RIVER NEAR INDIAN LAKE, NY

LOCATION.--Lat 43°45'30", long 74°16'05", Hamilton County, Hydrologic Unit 02020001, on right bank 0.8 mi downstream from Indian Lake Dam, 1.0 mi upstream from Big Brook, and 2.0 mi south of village of Indian Lake.

DRAINAGE AREA.--132 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1912 to June 1914, June 1915 to current year. Monthly discharge only for some periods published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 1,604.23 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 30, 1916, nonrecording gage at same site and datum.

REMARKS.--Records excellent. Flow regulated by Indian Lake (see station 01314500).

AVERAGE DISCHARGE.--69 years (1913, 1916-83), 295 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft<sup>3</sup>/s Mar. 28, 1913, gage height, 7.8 ft; minimum, less than 1 ft<sup>3</sup>/s frequently, when entire flow of river is being stored in Indian Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 760 ft<sup>3</sup>/s May 5, gage height, 3.49 ft; minimum, 10 ft<sup>3</sup>/s Apr. 13, gage height, 0.50 ft; minimum daily, 24 ft<sup>3</sup>/s Apr. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	477	296	202	285	359	81	645	569	29	235	27
2	217	503	296	202	305	356	83	653	565	29	299	27
3	217	522	296	202	391	356	83	633	565	29	296	27
4	217	522	296	202	388	353	83	661	569	29	296	28
5	217	526	296	202	388	353	83	726	569	29	296	28
6	217	522	296	202	391	353	83	726	569	29	296	28
7	217	518	294	202	391	356	84	665	569	29	296	28
8	235	518	294	202	408	353	84	669	569	28	296	43
9	294	515	294	202	467	353	84	693	526	27	296	100
10	294	515	294	202	467	356	87	685	401	27	296	102
11	288	515	294	202	467	356	89	657	401	27	269	100
12	299	414	291	202	463	356	78	626	398	27	207	100
13	322	102	291	217	463	356	24	606	356	27	314	100
14	322	481	269	263	459	356	87	595	232	27	314	98
15	322	481	197	266	456	356	89	595	199	27	314	98
16	322	477	204	266	452	356	97	584	108	27	311	112
17	322	477	199	266	452	302	94	576	108	27	274	167
18	322	474	199	266	449	294	92	572	108	27	167	167
19	322	467	199	285	449	384	92	572	108	37	165	165
20	356	463	199	291	445	442	92	569	108	78	117	165
21	428	463	199	291	442	445	92	569	90	78	56	190
22	428	459	199	291	442	442	94	565	29	78	57	258
23	428	459	199	291	438	442	95	565	29	78	56	255
24	428	408	199	291	435	401	100	565	29	78	38	255
25	424	372	199	291	435	277	187	565	30	84	27	255
26	424	391	202	288	431	277	467	565	30	103	27	255
27	424	459	202	288	431	277	572	565	31	154	27	255
28	421	459	202	288	411	232	565	565	29	214	27	255
29	474	456	202	288	---	81	572	565	29	207	27	255
30	518	424	202	288	---	81	657	569	29	209	27	261
31	526	---	202	288	---	81	---	569	---	212	28	---
TOTAL	10464	13839	7501	7727	11901	10142	5070	18935	7952	2111	5751	4204
MEAN	338	461	242	249	425	327	169	611	265	68.1	186	140
MAX	526	526	296	291	467	445	657	726	569	214	314	261
MIN	217	102	197	202	285	81	24	565	29	27	27	27

## ADJUSTED FOR CHANGE IN CONTENTS OF INDIAN LAKE

MEAN	156	316	290	177	280	344	844	678	196	42	108	54
CFMS	1.18	2.39	2.20	1.34	2.12	2.61	6.39	5.14	1.48	0.32	0.82	0.41
IN	1.36	2.67	2.53	1.55	2.21	3.00	7.13	5.92	1.66	0.37	0.94	0.46

## OBSERVED

## ADJUSTED

CAL YR 1982	TOTAL	111623	MEAN 306	MAX 604	MIN 33	MEAN 293	CFMS 2.22	IN 30.13
WTR YR 1983	TOTAL	105597	MEAN 289	MAX 726	MIN 24	MEAN 290	CFMS 2.20	IN 29.82



## HUDSON RIVER BASIN

01315500 HUDSON RIVER AT NORTH CREEK, NY

LOCATION.--Lat 43°42'03", long 73°59'02", Warren County, Hydrologic Unit 02020001, on left bank 125 ft upstream from bridge on State Highway 28N in village of North Creek, 500 ft upstream from North Creek, and 26 mi downstream from Indian Lake.

DRAINAGE AREA.--792 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1907 to current year.

REVISED RECORDS.--WSP 621: Drainage area. WSP 1432: 1908-18, 1920, 1922. WDR NY-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 987.51 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 15, 1930, nonrecording gages at sites 80 ft and 125 ft downstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Appreciable regulation by Indian Lake (see station 01314500) and other reservoirs above station.

AVERAGE DISCHARGE.--76 years, 1,557 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,900 ft<sup>3</sup>/s Dec. 31, 1948, gage height, 12.14 ft; minimum, 112 ft<sup>3</sup>/s July 26, 1934, gage height, 1.96 ft; minimum daily, 114 ft<sup>3</sup>/s July 26, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,500 ft<sup>3</sup>/s May 1, gage height, 9.02 ft; minimum, 132 ft<sup>3</sup>/s July 20, gage height 2.10 ft; minimum daily, 135 ft<sup>3</sup>/s July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	922	913	1550	1450	780	758	1010	12600	3690	359	879	235
2	871	1030	1600	1260	800	797	899	11900	3310	323	1550	235
3	760	1140	1560	1070	2030	841	984	10700	2810	294	1640	209
4	638	1290	1560	880	4600	845	1060	8870	2420	272	1330	191
5	625	4060	1520	850	3750	832	1390	6950	2490	251	1100	178
6	593	5400	1570	900	2700	847	1510	5470	2350	243	1080	169
7	561	4420	1660	896	2000	1050	1750	4120	2700	247	900	163
8	957	3320	1570	846	1700	1400	2240	3600	2660	247	808	151
9	2100	2610	1420	730	1400	1590	2930	4300	2350	231	741	146
10	1850	2130	1180	708	1300	1730	3110	4340	1710	212	678	175
11	1360	1810	1100	974	1200	2230	4170	3800	1710	198	678	205
12	1090	1670	920	1470	1200	2320	3940	3450	1490	188	1260	212
13	1100	1580	850	1300	1100	2030	3230	3050	1340	181	1690	205
14	1070	2110	820	1200	1100	1800	2780	2830	1130	172	1290	195
15	1080	2020	860	1000	1100	1720	2810	2910	769	166	1080	188
16	1360	1780	1170	940	1000	1660	5390	3140	911	160	879	191
17	1440	1580	2380	880	1000	1780	6850	2720	1070	154	741	220
18	1380	1450	2040	820	980	1760	5390	2570	1010	151	627	272
19	1280	1350	1600	750	960	2410	4230	2220	977	140	514	290
20	1230	1270	1450	720	940	3710	3450	2210	808	135	404	285
21	1380	1240	1280	740	920	3880	2910	2100	669	151	343	308
22	1310	1340	1160	820	900	3590	2530	2220	550	166	290	868
23	1210	1710	1030	865	880	3090	2630	2050	428	191	281	1210
24	957	2060	992	980	860	2620	3410	2600	359	195	272	1040
25	1120	1960	1020	1200	840	1920	8230	3000	323	198	247	759
26	992	2020	1500	1100	820	1690	9380	2600	304	205	227	595
27	957	1880	1900	1000	800	1510	7290	2720	349	209	209	565
28	965	1770	1900	940	780	1420	6650	3020	514	235	195	521
29	930	1550	1950	900	---	1250	6830	2830	493	276	181	493
30	879	1610	1810	840	---	1140	7330	2760	422	290	175	466
31	767	---	1630	800	---	996	---	3140	---	333	209	---
TOTAL	33734	60073	44552	29829	38440	55216	116313	130790	42116	6773	22498	10940
MEAN	1088	2002	1437	962	1373	1781	3877	4219	1404	218	726	365
MAX	2100	5400	2380	1470	4600	3880	9380	12600	3690	359	1690	1210
MIN	561	913	820	708	780	758	899	2050	304	135	175	146
CAL YR 1982	TOTAL	561093	MEAN	1537	MAX	16800	MIN	265				
WTR YR 1983	TOTAL	591274	MEAN	1620	MAX	12600	MIN	135				

## HUDSON RIVER BASIN

33

01318500 HUDSON RIVER AT HADLEY, NY

LOCATION.--Lat 43°19'08", long 73°50'41", Saratoga County, Hydrologic Unit 02020001, on right bank at Hadley, 400 ft downstream from outlet of Lake Luzerne, and 0.3 mi upstream from Sacandaga River.

DRAINAGE AREA.--1,664 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 561: 1921-22. WSP 756: Drainage area. WSP 1432: 1931 (m).

GAGE.--Water-stage recorder. Datum of gage is 563.99 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent except those for winter periods, which are fair. Some diurnal fluctuation caused by powerplant on Schroon River. Flow regulated by Indian Lake (see station 01314500) and other reservoirs above station.

AVERAGE DISCHARGE.--62 years, 2,903 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,700 ft<sup>3</sup>/s Jan. 1, 1949, gage height, 21.21 ft; minimum, 281 ft<sup>3</sup>/s Sept. 3, 1934, gage height, 0.94 ft; minimum daily, 292 ft<sup>3</sup>/s July 24, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 26	0300	19,400	11.70	May 2	0800	*21,300	*12.50

Minimum discharge, 328 ft<sup>3</sup>/s July 21, gage height, 1.14 ft; minimum daily, 342 ft<sup>3</sup>/s July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1160	1050	2230	2210	1400	1610	2640	18900	8350	1200	1160	687
2	1010	1180	2210	2170	1400	1570	2590	21100	7770	1110	1630	631
3	949	1270	2210	1990	2610	1680	2700	20600	6900	1020	2100	583
4	853	1400	2180	1530	6220	1740	2970	18600	6300	972	1900	525
5	737	2800	2130	1260	5900	1710	3300	15500	6160	949	1620	489
6	718	6050	2140	1490	4300	1710	3550	13100	5820	889	1480	463
7	681	5600	2210	1570	3600	2000	3820	10800	6700	853	1410	439
8	817	4380	2180	1550	3100	2710	4420	9200	6430	782	1280	420
9	1730	3470	2050	1270	2700	3100	5260	9550	5960	749	1320	390
10	2080	2920	1400	1030	2400	3390	5640	9640	5110	693	1170	375
11	1770	2570	1300	1420	2300	4560	8530	8850	4490	635	1130	389
12	1450	2330	1300	2130	2200	4550	8120	7880	4260	624	1970	417
13	1320	2290	1200	2140	2200	4000	6900	7330	3790	584	2600	423
14	1340	2480	1200	1760	2100	3700	5980	6470	3440	546	2240	422
15	1270	2700	1300	2000	2100	3600	5730	6210	2910	520	1840	409
16	1400	2490	1660	1700	2160	3600	7410	6170	2650	483	1590	393
17	1620	2270	2430	1600	2110	3770	11800	5900	2890	409	1410	402
18	1650	2100	2500	1500	2070	3750	10500	5400	2980	382	1300	428
19	1570	1970	2150	1400	2040	4560	8680	4700	2730	366	1200	481
20	1470	1850	2090	1300	1920	7070	7880	4630	2550	352	1040	524
21	1540	1780	2020	1200	1850	7050	7150	4330	2210	342	903	534
22	1560	1790	1750	1300	1900	7290	6600	4440	1960	370	834	941
23	1500	2070	1620	1390	1870	5910	6750	4210	1710	365	789	1500
24	1270	2540	1650	1810	1870	5380	7710	4610	1540	390	723	1430
25	1310	2670	1760	2230	1790	4560	14400	5210	1380	413	675	1240
26	1280	2710	2130	2280	1710	3720	18300	4680	1280	404	623	1060
27	1200	2650	2780	2020	1620	3640	15000	6590	1250	404	577	932
28	1200	2370	2900	1700	1610	3510	13300	7250	1360	404	536	870
29	1180	2260	2960	1600	---	3410	12900	6520	1440	420	506	820
30	1150	2200	2820	1500	---	3040	12900	7000	1310	477	527	776
31	1030	---	2450	1500	---	2800	---	7610	---	489	686	---
TOTAL	39815	76210	62910	51550	69050	114690	233430	272980	113630	18596	38769	19393
MEAN	1284	2540	2029	1663	2466	3700	7781	8806	3788	600	1251	646
MAX	2080	6050	2960	2280	6220	7290	18300	21100	8350	1200	2600	1500
MIN	681	1050	1200	1030	1400	1570	2590	4210	1250	342	506	375

CAL YR 1982	TOTAL	966790	MEAN	2649	MAX	23200	MIN	460
WTR YR 1983	TOTAL	1111023	MEAN	3044	MAX	21100	MIN	342

## HUDSON RIVER BASIN

01321000 SACANDAGA RIVER NEAR HOPE, NY

LOCATION.--Lat 43°21'10", long 74°16'15", Hamilton County, Hydrologic Unit 02020002, on left bank 1.5 mi downstream from West Branch Sacandaga River, on State Highway 30, and 4.5 mi upstream from Hope.

DRAINAGE AREA.--491 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1911 to current year.

GAGE.--Water-stage recorder. Datum of gage is 881.31 ft National Geodetic Vertical Datum of 1929. Prior to July 24, 1929, nonrecording gage at site 300 ft upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Some seasonal regulation at Piseco Lake Outlet and, since 1959, intermittent regulation by Lake Algonquin at Wells 4 mi upstream. Infrequent minor fluctuations by mill upstream.

AVERAGE DISCHARGE.--72 years, 1,100 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 ft<sup>3</sup>/s Mar. 27, 1913, gage height, 11.0 ft, from floodmarks at site then in use; minimum, about 16 ft<sup>3</sup>/s Sept. 30, 1913, gage height, 1.17 ft; minimum daily, 18 ft<sup>3</sup>/s Sept. 20, 1913.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 25	0900	10,800	6.97	May 1	0930	*14,100	*7.75

Minimum discharge, 35 ft<sup>3</sup>/s July 28, gage height, 1.23 ft; minimum daily, 53 ft<sup>3</sup>/s July 21, 29-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	181	907	1100	580	394	821	10900	2320	158	648	506
2	136	212	849	1000	580	427	830	8380	1860	154	563	387
3	123	216	784	800	3910	534	967	9050	1490	143	421	311
4	114	240	731	600	4870	556	1080	7050	1420	147	341	266
5	108	1440	672	580	2360	520	1250	5360	1440	150	305	231
6	102	1230	680	601	2060	534	1270	3910	1350	126	282	221
7	99	868	680	571	1700	1330	1560	3320	2040	117	261	186
8	348	714	600	534	1400	2040	2680	2840	1720	114	231	177
9	563	608	500	452	1200	1880	2810	3180	1380	130	266	150
10	394	520	420	446	1000	1440	2930	2820	977	120	221	150
11	305	465	390	784	840	2210	4600	2470	926	114	221	140
12	256	433	350	1210	780	2040	3480	2130	793	105	706	126
13	236	697	330	926	720	1670	2840	1800	680	81	811	114
14	221	775	340	800	680	1490	2460	1650	593	69	527	105
15	226	680	348	700	640	1480	2280	1490	527	65	421	96
16	261	601	877	640	600	1420	6160	1400	472	67	348	91
17	261	541	1700	580	560	1490	5820	1280	415	65	245	91
18	240	492	1160	513	540	1460	4320	1020	527	69	177	102
19	226	459	980	465	520	2150	3460	1010	492	72	190	99
20	212	440	860	520	490	3380	3030	1200	367	55	165	126
21	221	446	760	600	480	2820	2680	1380	305	53	136	177
22	221	571	720	700	460	3260	2200	1220	261	74	158	967
23	207	1030	616	860	440	2440	2510	1400	226	55	305	664
24	194	1420	980	1400	420	2040	3930	1590	198	61	216	459
25	186	1300	860	1370	410	1520	9370	1340	177	117	173	367
26	177	1120	760	1110	400	1090	7460	1180	162	86	147	305
27	169	977	1700	920	390	1060	5440	1330	169	69	133	266
28	165	802	1600	800	390	1050	4700	1420	203	57	123	226
29	158	793	1600	700	---	1070	4200	1250	207	53	117	198
30	154	887	1400	640	---	926	4480	1660	173	53	143	177
31	150	---	1200	600	---	858	---	2340	---	65	299	---
TOTAL	6583	21158	26354	23522	29420	46579	101618	88370	23870	2864	9300	7481
MEAN	212	705	850	759	1051	1503	3387	2851	796	92.4	300	249
MAX	563	1440	1700	1400	4870	3380	9370	10900	2320	158	811	967
MIN	99	181	330	446	390	394	821	1010	162	53	117	91

CAL YR 1982	TOTAL	385491	MEAN	1056	MAX	12700	MIN	51
WTR YR 1983	TOTAL	387119	MEAN	1061	MAX	10900	MIN	53



## 01323500 GREAT SACANDAGA LAKE AT CONKLINGVILLE, NY

LOCATION.--Lat 43°18'57", long 73°55'39", Saratoga County, Hydrologic Unit 02020002, 800 ft upstream from right end of Conklingville Dam on Sacandaga River at Conklingville.

DRAINAGE AREA.--1,044 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1930 to current year. Prior to October 1969, published as "Sacandaga Reservoir at Conklingville."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum, adjustment of 1912. Prior to Apr. 23, 1930, nonrecording gage at same datum in outlet channel 800 ft downstream.

REMARKS.--Reservoir is formed by earth and concrete dam; storage began in March 1930; dam completed in 1930. Usable capacity for stream regulation, 29.670 bil ft<sup>3</sup> between elevations 735.0 ft and 768.0 ft. Between elevations 768.0 ft and 771.0 ft (spillway crest) an additional 3.450 bil ft<sup>3</sup> is available exclusively for flood storage. Elevation of inverts of three Dow valves is 699.0 ft. Capacity of 4.600 bil ft<sup>3</sup> below elevation 735.0 ft is considered dead storage, except for extraordinary emergencies or for necessary inspection of structures. Purpose of reservoir is to provide flood control and low-water stream regulation for sanitary improvement, navigation, and power, as required by the public welfare, including public health and safety. Area of water surface of reservoir filled to capacity, elevation, 771.0 ft, is 41.7 mi<sup>2</sup>. Discharge over spillway May 1-10, 1983 (first spillage since dam completion in 1930).

COOPERATION.--Records furnished by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 773.29 ft May 4, 1983, contents, 40.418 bil ft<sup>3</sup>; minimum since first filling, 729.55 ft Mar. 30, 1940, contents, 2.100 bil ft<sup>3</sup>.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 773.29 ft May 4, contents, 40.418 bil ft<sup>3</sup>; minimum, 748.98 ft Dec. 15, contents, 15.032 bil ft<sup>3</sup>.

Capacity table, current water year  
(elevation, in feet, and contents, in billions of cubic feet)

738	6.43	760	25.61
740	7.80	764	29.85
745	11.64	768	34.27
750	15.94	771	37.72
755	20.11	774	41.26

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	754.06	750.20	749.76	750.75	750.15	751.76	758.95	771.36	768.13	766.37	762.64	759.74
2	753.83	750.03	749.76	750.84	750.04	751.59	759.08	772.07	768.07	766.26	762.63	759.62
3	753.75	749.87	749.75	750.91	750.27	751.47	759.28	772.81	767.96	766.20	762.56	759.43
4	753.69	749.76	749.74	750.79	751.50	751.34	759.57	773.23	767.83	766.21	762.46	759.35
5	753.50	749.80	749.70	750.67	752.19	751.20	759.82	773.13	767.72	766.20	762.35	759.32
6	753.31	749.90	749.85	750.57	752.50	751.15	760.05	772.84	767.57	766.08	762.28	759.23
7	753.10	749.86	749.84	750.48	752.85	751.27	760.30	772.42	767.67	765.95	762.20	759.10
8	753.02	749.88	749.71	750.40	753.05	751.42	760.69	772.00	767.71	765.84	762.20	758.83
9	752.89	749.75	749.64	750.32	753.16	751.67	761.14	771.67	767.71	765.66	762.07	758.64
10	752.85	749.67	749.60	750.31	753.16	751.92	761.62	771.31	767.70	765.56	761.90	758.45
11	752.82	749.57	749.61	750.26	753.16	752.30	762.57	770.86	767.68	765.51	761.72	758.35
12	752.66	749.51	749.46	750.31	753.16	752.77	763.29	770.43	767.69	765.37	761.69	758.24
13	752.50	749.51	749.43	750.30	753.20	753.14	763.74	769.94	767.70	765.22	761.72	758.00
14	752.37	749.50	749.26	750.27	753.24	753.44	764.15	769.44	767.63	765.04	761.69	757.78
15	752.28	749.61	749.11	750.24	753.16	753.65	764.38	768.95	767.56	764.88	761.70	757.59
16	752.10	749.51	749.09	750.37	753.08	753.86	764.92	768.45	767.48	764.73	761.60	757.38
17	752.00	749.40	749.15	750.42	752.97	754.07	765.91	768.28	767.41	764.61	761.49	757.15
18	751.93	749.31	749.30	750.30	752.88	754.25	766.51	768.28	767.39	764.53	761.42	757.04
19	751.78	749.24	749.35	750.17	752.78	754.58	766.83	768.22	767.41	764.36	761.34	756.98
20	751.63	749.17	749.48	750.01	752.73	755.30	767.32	768.11	767.40	764.18	761.24	756.79
21	751.58	749.18	749.52	749.92	752.75	755.88	767.77	767.97	767.31	764.06	761.08	756.65
22	751.39	749.21	749.45	749.71	752.62	756.57	767.87	767.78	767.21	763.85	761.03	756.63
23	751.21	749.25	749.38	749.69	752.48	757.08	768.06	767.71	767.14	763.69	760.93	756.53
24	751.10	749.39	749.40	749.90	752.34	757.39	768.33	767.88	766.96	763.57	760.79	756.37
25	751.05	749.53	749.47	750.01	752.17	757.64	769.27	767.93	766.86	763.50	760.62	756.28
26	750.89	749.63	749.82	750.11	752.04	757.86	770.34	767.97	766.81	763.34	760.48	756.24
27	750.76	749.66	750.13	750.13	751.98	758.03	770.68	768.11	766.79	763.20	760.31	756.04
28	750.60	749.71	750.30	750.12	751.95	758.29	770.79	768.14	766.65	763.02	760.17	755.80
29	750.43	749.81	750.54	750.11	---	758.52	770.82	768.00	766.58	762.89	760.12	755.63
30	750.30	749.80	750.66	750.14	---	758.68	770.80	767.95	766.49	762.72	759.97	755.42
31	750.21	---	750.71	750.22	---	758.82	---	768.04	---	762.59	759.82	---
MEAN	752.12	749.61	749.68	750.28	752.41	754.42	764.83	769.72	767.41	766.68	761.43	757.62
MAX	754.06	750.20	750.71	750.91	753.24	758.82	770.82	773.23	768.13	766.37	762.64	759.74
MIN	750.21	749.17	749.09	749.69	750.04	751.15	758.95	767.71	766.49	762.59	759.82	755.42
#	16.13	15.72	16.58	16.09	17.62	24.46	37.61	34.35	32.53	28.36	25.38	20.91
**	-1340	-158	+321	-183	+632	+2554	+5073	-1217	-702	-1557	-1113	-1725
CAL YR 1982	MEAN 756.48		MAX 768.72	MIN 742.08	**	-216						
WTR YR 1983	MEAN 757.87		MAX 773.23	MIN 749.09	**	+37.7						

# Contents, in billions of cubic feet, at 2400 hours on last day of month.  
\*\* Change in contents, equivalent in cubic feet per second.

## 01325000 SACANDAGA RIVER AT STEWARTS BRIDGE, NEAR HADLEY, NY

LOCATION.--Lat 43°18'41", long 73°52'04", Saratoga County, Hydrologic Unit 02020002, on left bank 1.0 mi downstream from Stewarts Bridge, 1.1 mi west of Hadley, 1.4 mi upstream from mouth, and 1.5 mi downstream from Stewarts Bridge hydroelectric plant.

DRAINAGE AREA.--1,055 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1907 to current year. Published as "near Hadley" 1907-1910, "at Hadley" 1911-32 and "at Conklingville" 1932-52. Records published for both sites October 1951 to September 1952.

REVISED RECORDS.--WSP 1302: 1908. WSP 1432: 1910-12, 1916-21.

GAGE.--Water-stage recorder. Datum of gage is 582.00 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1911, nonrecording gage at site about 1 mi upstream at different datum. Jan. 1, 1911 to Sept. 30, 1932, water-stage recorder at site 0.8 mi downstream at datum 8.82 ft lower than present datum. Oct. 1, 1932 to Sept. 30, 1952, water-stage recorder at site 3.6 mi upstream at datum 85.47 ft higher than present datum.

REMARKS.--Records good above 10 ft<sup>3</sup>/s and fair below. Flow regulated by Great Sacandaga Lake since Mar. 27, 1930 (see station 01323500); discharge over spillway May 1-10. Extensive diurnal fluctuation caused by release of water from Great Sacandaga Lake, through Elmer J. West hydroelectric station as directed by Board of Hudson River-Black River Regulating District, and through Stewarts Bridge hydroelectric station.

COOPERATION.--From Oct. 1, 1932, to Dec. 4, 1979 discharge computed by Board of Hudson River-Black River Regulating District from rating developed by Geological Survey. Since Dec. 4, 1979, discharge computed by U.S. Geological Survey.

AVERAGE DISCHARGE.--76 years, 2,142 ft<sup>3</sup>/s, adjusted for storage since 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 35,500 ft<sup>3</sup>/s Mar. 28, 1913, gage height, 12.36 ft site and datum then in use; minimum, 5.3 ft<sup>3</sup>/s Mar. 17, 18, 1964, Apr. 29 to May 4, May 5, 6, 1965; minimum daily, 5.3 ft<sup>3</sup>/s Apr. 30 to May 3, 1965. Maximum discharge since construction of Conklingville Dam in 1930, 13,300 ft<sup>3</sup>/s May 4, 1983, gage height, 9.68 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,300 ft<sup>3</sup>/s May 4, gage height, 9.68 ft; minimum 9.9 ft<sup>3</sup>/s Mar. 23, 24-Apr. 6, 7; minimum daily, 9.9 ft<sup>3</sup>/s Mar. 23 to Apr. 6.

REVISIONS.--The maximum discharges for some water years have been revised as shown in the following table. They supercede figures published in the reports for 1968, 1971-72, 1976-77, and 1979.

Water Year	Date	Discharge (ft <sup>3</sup> /s)	Gage Height (ft)
1968	July 1, 1968	12,900	9.54
1971	May 12, 1971	9,050	7.96
1972	June 24, 1972	10,800	8.71
1976	Apr. 1, 1976	11,900	9.15
1977	Apr. 26, 1977	11,900	9.15
1979	Apr. 30, 1979	10,600	8.61

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2010	1830	1510	1690	2050	2900	9.9	9020	4900	1680	2050	2330
2	2060	2050	1550	32	2080	2890	9.9	10700	5010	1920	1460	2320
3	40	1980	1510	2020	1600	2880	9.9	11800	5060	50	1460	2150
4	2200	2060	1560	2030	40	2880	9.9	12800	5030	46	1480	64
5	2210	2010	33	2030	200	2880	9.9	12600	5030	2070	1500	1320
6	2320	1720	1630	2030	186	146	9.9	12000	4210	1640	2110	2360
7	2200	34	1590	2030	1010	2760	12	11200	2720	1880	36	2440
8	2150	1720	1490	2090	1050	2890	36	10600	2260	1950	1980	2680
9	2210	1700	1530	39	1550	2630	46	10100	2090	1960	2050	2760
10	36	1690	1520	2000	1530	2120	64	9770	2060	37	2030	2520
11	2190	1680	1570	2230	1480	1160	131	9700	2060	2030	2000	62
12	2230	1720	29	2150	1530	33	94	9730	42	2150	2010	2570
13	2230	1530	2020	1730	32	30	71	9700	3060	2130	1990	2420
14	1860	32	2000	1650	2030	1070	55	9660	2420	2180	42	2480
15	1870	1470	2020	1700	2090	1060	14	9680	2010	2110	1630	2560
16	1870	1540	2060	36	2190	1050	448	6760	1010	2100	1670	2530
17	37	1520	1530	2030	2230	2270	1650	3810	1450	37	1660	2520
18	1880	1530	1530	2180	2170	1870	2250	2000	1150	2000	1960	64
19	1880	1530	30	2170	2530	28	2120	2510	30	2020	2010	2500
20	1860	1560	1460	2190	49	26	2930	4350	1950	1990	2010	2510
21	1890	37	1490	2230	2030	845	2810	4700	2000	2180	37	2560
22	1890	1700	1540	2250	2520	13	3930	4520	1920	2160	2180	2520
23	1880	1740	1540	40	2510	9.9	2190	3670	1460	2170	2150	2500
24	39	1740	1490	2160	2520	9.9	2770	2070	1530	37	2100	2520
25	1860	30	30	1740	2510	9.9	6360	1950	1530	2070	2090	62
26	1850	1040	28	1770	2530	9.9	7270	1930	39	2190	2100	2480
27	1930	1040	1800	1680	59	9.9	7250	2450	1660	2060	2450	2510
28	2020	30	1710	1830	2770	9.9	6780	3410	1910	2100	43	2480
29	1870	1550	1730	1490	---	9.9	6890	4920	1710	2070	2160	2550
30	1890	1540	1680	32	---	9.9	7070	5080	1570	2070	2330	2550
31	36	---	1690	2020	---	9.9	---	4900	---	42	2450	---
TOTAL	52498	41353	42900	51299	45076	34520.1	63300.4	218090	68881	51129	53228	63892
MEAN	1693	1378	1384	1655	1610	1114	2110	7035	2296	1649	1717	2130
MAX	2320	2060	2060	2250	2770	2900	7270	12800	5060	2190	2450	2760
MIN	36	30	28	32	32	9.9	9.9	1930	30	37	36	62

## Adjusted for change in Great Scandaga Lake and Stewarts Bridge Pool

MEAN	352	1219	1705	1470	2244	3570	7221	5879	1594	90.9	593	401
CFSM	0.33	1.16	1.62	1.39	2.13	3.38	6.84	5.57	1.51	0.09	0.56	0.38
IN	0.38	1.29	1.86	1.61	2.22	3.90	7.64	6.42	1.69	0.10	0.65	0.42

## Observed

## Adjusted

CAL YR 1982	TOTAL	826073.6	MEAN	2263	MAX	5430	MIN	9.9	MEAN	2047	CFSM	1.94	IN	26.34
WTR YR 1983	TOTAL	786166.5	MEAN	2154	MAX	12800	MIN	9.9	MEAN	2190	CFSM	2.08	IN	28.18

## HUDSON RIVER BASIN

37

01327750 HUDSON RIVER AT FORT EDWARD, NY

LOCATION.--Lat 43°16'10", long 73°35'47", Washington County, Hydrologic Unit 02020003, on left bank 40 ft upstream from Scott Paper Mill, 150 ft south of River Street in Fort Edward, and 0.4 mi upstream from bridge on State Highway 197.

DRAINAGE AREA.--2,817 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 100.00 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow regulated appreciably by Great Sacandaga Lake (see station 01323500) and Indian Lake (see station 01314500). Diurnal fluctuation caused by powerplants upstream from station. Water is diverted into St. Lawrence River basin through Glens Falls feeder (see station 01327500), Bond Creek, and Champlain (Barge) Canal, and occasionally may be received from that basin through summit level of Champlain (Barge) Canal at Dunham Basin.

AVERAGE DISCHARGE.--6 years, 5,166 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,200 ft<sup>3</sup>/s May 3, 1983, gage height 28.34 ft; maximum gage height, 28.71 ft Jan. 11, 1978, ice jam; minimum discharge, 234 ft<sup>3</sup>/s July 25, 1983, minimum gage height, 19.33 ft Sept. 4, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,200 ft<sup>3</sup>/s May 3, gage height, 28.34 ft; minimum, 290 ft<sup>3</sup>/s July 24, 25, gage height, 19.55 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3690	2880	3420	3930	3840	4390	2600	25900	13800	2910	2700	3050
2	2700	3050	3570	2730	3570	4450	2570	32600	13700	2780	3220	2750
3	1250	3130	3270	3510	3870	4320	2620	34100	12700	1700	3360	2670
4	2700	3510	3480	4120	5780	4620	3160	33100	11900	994	3510	1820
5	3080	4090	2300	3570	6050	4390	3390	29600	11700	2040	3220	1920
6	2880	6410	3080	3270	5080	2450	3450	26400	11100	3600	3160	2210
7	2990	6570	3360	3240	5040	4060	3720	23400	9690	2520	1920	2550
8	3160	5180	3510	3420	4760	5110	4090	20900	9390	2620	3160	3160
9	3930	5510	3540	2070	4790	6130	4490	20600	8160	2450	3220	2730
10	2420	4520	3300	2940	5180	5220	5080	20700	8030	1080	3080	2250
11	3720	4320	2600	3540	5150	5970	6650	19700	6770	2280	3220	2070
12	3840	4030	1420	3720	5110	5630	8070	19000	5660	2990	3480	2000
13	3510	3690	2620	4060	3300	4350	7450	18200	5220	2500	4160	2070
14	3330	2990	2910	3840	4250	4450	6250	17500	6770	2620	3660	2940
15	3300	3160	3040	2730	4030	5000	5820	16900	5330	2780	3690	3130
16	3130	3930	3600	1490	4090	4900	5550	15200	4350	2780	3050	2470
17	1920	3970	3900	2860	4390	4860	13200	10900	3970	1030	2970	2670
18	3220	3630	4000	3360	4320	5780	12900	8030	4550	2090	3160	1700
19	3540	3270	2700	4090	4030	5630	11200	7630	2730	2160	3100	2070
20	3220	3100	3450	5260	2880	6860	10300	9000	3510	2300	3080	2970
21	3300	1770	3660	3420	3270	7240	11900	9640	4090	2550	1300	2700
22	3300	3190	3330	5370	4250	8160	9100	9290	3810	2470	2600	3300
23	3360	3600	2860	2210	4450	6570	9200	9340	3750	2670	2860	3510
24	2040	3930	3130	3660	4390	5820	9440	7110	3050	690	2860	3970
25	2880	3240	2140	4120	4320	5290	19500	7110	2800	2020	2860	2230
26	2780	2910	2140	4190	4190	3780	26800	7540	1870	2400	2750	2860
27	3080	3270	3600	4390	2070	3570	23900	8630	2600	2620	2730	3540
28	3020	2700	4520	4190	3750	3840	21300	10800	2990	2520	1180	3080
29	3190	3130	4550	3420	---	3630	20500	12200	3270	2470	2570	3220
30	3050	3270	4390	1700	---	3240	20700	12700	3080	2700	2550	3390
31	1140	---	4390	3660	---	2830	---	13200	---	1080	2730	---
TOTAL	92670	111950	101780	108080	120200	152540	294900	516920	190340	70414	91110	81000
MEAN	2989	3732	3283	3486	4293	4921	9830	16670	6345	2271	2939	2700
MAX	3930	6570	4550	5370	6050	8160	26800	34100	13800	3600	4160	3970
MIN	1140	1770	1420	1490	2070	2450	2570	7110	1870	690	1180	1700
CAL YR 1982	TOTAL	1817940	MEAN	4981	MAX	25600	MIN	1100				
WTR YR 1983	TOTAL	1931904	MEAN	5293	MAX	34100	MIN	690				



## HUDSON RIVER BASIN

01327755 HUDSON RIVER AT ROGERS ISLAND AT FORT EDWARD, NY

LOCATION.--Lat 43°15'52", long 73°35'28", Saratoga-Washington Counties, Hydrologic Unit 02020003, at bridges on State Highway 197 over Rogers Island in Fort Edward, 0.4 mi downstream from discharge station (01327750, Hudson River at Fort Edward), and 0.6 mi upstream from Champlain Canal.

DRAINAGE AREA.--2,817 mi<sup>2</sup>, at gage.

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL DATA: 1975-76 (a), 1980 (b), 1981 (d), 1982-83 (e).

MINOR ELEMENT DATA: 1975 (b), 1976-77 (a), 1978-79 (e), 1980 (d).

PESTICIDE DATA: 1975, 1977 (a); 1978-79 (e), 1980 (a).

ORGANIC DATA: OC--1975 (a).

PCB--1975, 1977 (a); 1978-83 (e).

PCN--1977 (a), 1978-79 (e), 1980 (a).

NUTRIENT DATA: 1975-77 (a), 1978 (e).

SEDIMENT DATA: 1975 (b), 1980-83 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1978 to September 1979.

REMARKS.--Water-discharge data is that for Hudson River at Fort Edward (station 01327750). Supplemental samples collected from navigation canal (east channel) are designated by the value 40 for sample source code. Composite samples from both the main (west) channel and the navigation canal are designated by the value 7 for sample source code.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SAMPLE SOURCE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PCB, TOTAL (UG/L)	PCB, DIS- SOLVED (UG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT							
21...	1115	7	2700	<.10	--	2	15
NOV							
10...	1045	7	5000	<.10	--	4	54
FEB							
25...	1020	7	4220	<.10	--	2	23
MAR							
16...	1130	7	4450	<.10	--	6	72
22...	1130	7	8070	<.10	--	4	87
APR							
11...	1045	--	5330	<.10	--	3	43
11...	1115	40	5330	.10	--	5	72
17...	1810	--	14800	<.10	--	10	400
17...	1835	40	14800	<.10	--	12	480
18...	1015	--	12800	<.10	--	8	276
18...	1030	40	12800	.10	--	7	242
20...	1400	--	10300	<.10	--	4	111
20...	1415	40	10300	<.10	--	3	83
21...	1230	7	12000	<.10	--	5	162
22...	0845	--	8490	<.10	--	0	.00
22...	0915	40	8490	<.10	--	0	.00
25...	1130	--	19700	.50	.1	18	957
25...	1200	40	19700	2.1	.1	21	1120
25...	1430	7	20800	.10	--	18	1010
26...	0900	--	27500	<.10	--	39	2900
26...	0915	40	27500	.10	--	39	2900
26...	1345	7	26500	.10	--	31	2220
28...	1415	7	20900	<.10	--	8	451
MAY							
01...	1530	7	27700	.30	--	22	1650
02...	1115	--	32500	.10	--	38	3330
02...	1130	40	32500	.30	--	38	3330
03...	1000	7	34100	.70	--	34	3130
04...	1445	7	33300	.10	--	35	3150
JUN							
01...	1345	7	13900	<.10	--	3	113
06...	1320	7	11000	<.10	--	2	59
15...	1130	7	4450	.10	--	1	12
29...	1130	7	3360	<.10	--	4	36
JUL							
08...	1430	7	2700	--	--	2	15
14...	1235	7	2570	--	--	3	21
21...	1000	7	2280	<.10	--	2	12
AUG							
14...	1430	7	2990	.10	--	2	16
18...	1435	7	3600	<.10	--	2	19
23...	1145	7	2670	<.10	--	4	29
25...	1150	7	2670	<.10	--	2	14
SEP							
08...	1405	7	3240	.20	--	0	.00
23...	1435	7	2780	<.10	--	3	22

## HUDSON RIVER BASIN

39

01329000 BATTEN KILL AT ARLINGTON, VT

LOCATION.--Lat 43°04'38", long 73°09'26", Bennington County, Hydrologic Unit 02020003, on left bank 5 ft upstream from bridge on Highway 313 at Arlington and 0.9 mi downstream from Warm Brook.

DRAINAGE AREA.--152 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 851: 1936 (maximum gage height). WSP 1302: 1929-34(M).

GAGE.--Water-stage recorder. Datum of gage is 596.68 ft, National Geodetic Vertical Datum of 1929. Prior to Nov. 18, 1941, nonrecording gage at downstream side of bridge at same datum.

REMARKS.--Records good except those for winter period, which are poor. Prior to 1949, diurnal fluctuation at low flow caused by mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--55 years, 339 ft<sup>3</sup>/s, 30.29 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft<sup>3</sup>/s Mar. 18, 1936, gage height, 11.3 ft, from floodmarks, present site, from rating curve extended above 6,100 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 10.8 ft and computation of peak flow over dam; minimum, 37 ft<sup>3</sup>/s Sept. 25, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage Height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage Height (ft)
Apr. 25	2030	2290	7.85	May 2	0830	*2710	8.19

Minimum discharge, 54 ft<sup>3</sup>/s Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	111	308	244	212	172	282	2050	626	134	79	232
2	66	118	251	225	202	281	274	2530	500	129	123	124
3	64	99	220	211	657	334	298	2450	433	124	102	94
4	64	89	206	151	845	258	314	2130	473	114	82	81
5	63	342	193	145	460	230	317	1640	488	109	84	74
6	62	283	215	160	356	229	294	1130	405	112	97	73
7	63	173	234	150	324	275	335	823	535	108	81	75
8	145	131	194	145	313	283	684	689	432	100	73	66
9	167	121	178	140	284	265	778	941	357	98	78	61
10	133	110	136	145	255	263	870	851	318	95	72	64
11	101	104	125	386	240	304	1460	726	286	90	80	66
12	88	110	120	455	230	302	1210	706	262	87	138	61
13	82	889	120	266	220	276	859	619	241	84	137	59
14	99	587	115	207	220	256	832	544	223	80	97	58
15	101	308	115	198	216	283	889	549	213	78	86	56
16	118	223	375	194	210	321	866	647	239	77	81	55
17	115	187	651	202	206	347	982	531	412	73	76	58
18	105	165	320	195	214	332	813	455	294	74	72	75
19	95	153	255	190	199	532	732	409	236	71	70	68
20	91	145	235	190	188	1090	1010	484	198	67	66	62
21	107	139	221	185	185	954	822	527	176	67	58	62
22	105	138	197	185	187	753	702	441	168	94	69	303
23	93	221	185	265	187	549	763	554	155	79	110	159
24	89	258	217	712	189	442	1110	844	141	85	77	104
25	86	254	358	494	180	381	2040	538	134	104	67	85
26	84	202	576	353	172	339	1990	444	135	82	63	77
27	82	182	446	277	160	320	1480	602	143	74	62	72
28	81	154	370	236	162	348	1460	537	188	69	102	69
29	79	305	385	233	---	384	1710	457	212	67	76	65
30	79	422	316	227	---	325	2010	576	154	68	75	63
31	78	---	252	225	---	296	---	792	---	68	469	---
TOTAL	2855	6723	8089	7591	7473	11724	28186	27216	8777	2761	3002	2621
MEAN	92.1	224	261	245	267	378	940	878	293	89.1	96.8	87.4
MAX	167	889	651	712	845	1090	2040	2530	626	134	469	303
MIN	62	89	115	140	160	172	274	409	134	67	58	55
CFSM	.61	1.47	1.72	1.61	1.76	2.49	6.18	5.78	1.93	.59	.64	.58
IN.	.70	1.65	1.98	1.86	1.83	2.87	6.90	6.66	2.15	.68	.73	.64

CAL YR 1982	TOTAL	115350	MEAN 316	MAX 3180	MIN 62	CFSM 2.08	IN 28.23
WTR YR 1983	TOTAL	117018	MEAN 321	MAX 2530	MIN 55	CFSM 2.11	IN 28.64

## HUDSON RIVER BASIN

01329650 HUDSON RIVER AT SCHUYLERVILLE, NY

LOCATION.--Lat 43°05'54", long 73°34'25", at Saratoga-Washington County line, Hydrologic Unit 02020003, at bridge on State Highway 29, 0.2 mi east of Schuylerville, 0.8 mi downstream from Batten Kill, and 1.0 mi downstream from Champlain (Barge) Canal lock 5.

DRAINAGE AREA.--3,440 mi<sup>2</sup> approximately.

PERIOD OF RECORD.--Water years 1977 to current year.

CHEMICAL DATA: 1980 (b), 1981 (c), 1982-83 (e).

MINOR ELEMENTS DATA: 1977 (e), 1978-79 (d), 1980 (b).

PESTICIDE DATA: 1977 (e), 1978-79 (d).

ORGANIC DATA: PCB--1977 (e), 1978-80 (d), 1981-83 (e).

PCN--1977 (e), 1978-79 (d).

NUTRIENT DATA: 1977 (e), 1978 (d).

SEDIMENT DATA: 1980 (d), 1981-83 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1977 to September 1979.

REMARKS.--Water discharge estimated from wire-weight gage located at bridge. Streamflow affected by regulation for power generation and diversion for canal operations.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PCB, TOTAL (UG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT					
21...	1215	2830	.10	3	23
NOV					
10...	1145	5130	.10	7	97
FEB					
25...	1145	4750	<.10	2	26
MAR					
16...	1030	7520	<.10	3	61
22...	1230	11500	<.10	20	621
APR					
11...	1230	10000	<.10	42	1130
17...	1915	17400	.20	71	3340
18...	0550	16100	.10	36	1560
18...	1130	15700	.10	25	1060
20...	1300	14700	<.10	10	397
20...	1530	15500	<.10	15	628
21...	1330	16500	<.10	17	757
22...	0945	13300	<.10	8	287
25...	1300	20400	.10	48	2640
25...	1530	18200	.10	50	2460
26...	1030	35100	.30	84	7960
26...	1445	35200	.30	58	5510
27...	1620	26500	.10	20	1430
MAY					
01...	1615	27300	.30	22	1620
02...	0545	33700	.40	68	6190
02...	1245	35400	.90	60	5730
03...	1130	37600	.90	58	5890
04...	1515	38100	.30	50	5140
06...	1230	29800	.50	16	1290
JUN					
01...	1415	15500	.20	6	251
06...	1205	12700	--	3	103
15...	1045	6230	.20	3	50
29...	1230	2880	.10	2	16
JUL					
08...	1315	2960	--	4	32
14...	1345	2310	.10	5	31
21...	1100	2220	.20	2	12
AUG					
01...	1330	770	.10	3	6.2
14...	1530	4400	.40	3	36
18...	1515	3900	.10	4	42
23...	1230	3370	.10	3	27
25...	1230	3500	.10	2	19
SEP					
08...	1515	2830	.20	10	76
23...	1500	4270	.10	6	69



## HUDSON RIVER BASIN

41

01330500 KAYADEROSSERAS CREEK NEAR WEST MILTON, NY

LOCATION.--Lat 43°02'18", long 73°54'35", Saratoga County, Hydrologic Unit 02020003, on left bank 600 ft downstream from Glowegee Creek, 1.0 mi east of West Milton, and 3.5 mi northwest of Ballston Spa.

DRAINAGE AREA.--90.0 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1927 to current year.

REVISED RECORDS.--WSP 741: Drainage area. WSP 1202: 1935-40.

GAGE.--Water-stage recorder. Datum of gage is 376.06 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for the winter periods, which are poor. Slight occasional diurnal fluctuation at low flow caused by mills above station.

AVERAGE DISCHARGE.--56 years, 136 ft<sup>3</sup>/s, 20.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,710 ft<sup>3</sup>/s Mar. 18, 1936, gage height, 10.78 ft, from floodmarks; maximum gage height, 11.20 ft Mar. 14, 1977, from floodmarks; minimum discharge, 6.1 ft<sup>3</sup>/s Aug. 23, 1927, gage height, 0.86 ft; minimum daily, 12 ft<sup>3</sup>/s Aug. 5-9, Sept. 8, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft<sup>3</sup>/s May 3, gage height, 5.33 ft, only peak above base of 1,200 ft<sup>3</sup>/s; minimum 22 ft<sup>3</sup>/s Oct. 5, 6, 7, July 20; minimum gage height, 1.21 ft July 20; minimum daily, 24 ft<sup>3</sup>/s Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	34	86	78	125	92	179	613	366	57	72	113
2	25	37	73	64	120	115	176	957	276	57	140	70
3	25	34	66	58	482	161	213	1070	220	52	71	50
4	25	34	62	54	726	172	261	940	369	50	53	41
5	28	136	58	64	400	135	231	565	285	63	44	40
6	25	88	54	60	260	130	198	401	279	67	41	38
7	24	62	52	57	190	279	186	316	279	62	38	36
8	44	53	49	55	170	288	242	279	198	53	34	33
9	52	45	46	54	160	422	213	471	163	49	40	30
10	43	41	43	86	190	395	270	355	146	44	32	31
11	36	43	43	130	140	499	555	279	134	42	60	31
12	35	46	41	147	125	425	346	226	121	42	242	29
13	33	122	43	110	115	352	244	203	108	39	150	29
14	35	93	40	88	105	338	200	198	103	38	84	29
15	34	69	37	82	98	338	179	258	101	36	60	29
16	32	62	82	76	96	300	377	226	95	35	49	28
17	30	52	158	74	94	279	624	186	117	32	43	35
18	28	50	130	72	94	244	443	167	101	32	68	45
19	29	46	85	70	98	404	363	203	90	29	74	38
20	28	45	65	68	100	490	776	267	81	27	51	40
21	29	45	58	67	110	401	610	213	75	27	41	45
22	27	69	54	66	125	452	446	256	70	29	49	132
23	28	189	52	128	140	300	392	371	66	27	77	77
24	28	147	73	383	136	223	415	273	60	29	53	57
25	27	100	132	352	110	188	832	200	57	32	44	48
26	28	77	238	250	92	165	768	406	56	31	39	42
27	28	70	167	180	87	159	452	681	58	28	37	39
28	28	61	140	160	85	172	330	406	75	27	35	35
29	28	82	184	150	---	228	270	428	84	26	35	33
30	28	107	136	140	---	213	419	685	66	28	47	30
31	28	---	100	130	---	188	---	503	---	29	113	---
TOTAL	947	2139	2647	3553	4773	8547	11210	12602	4299	1219	2016	1353
MEAN	30.5	71.3	85.4	115	170	276	374	407	143	39.3	65.0	45.1
MAX	52	189	238	383	726	499	832	1070	369	67	242	132
MIN	24	34	37	54	85	92	176	167	56	26	32	28
CFSM	.34	.79	.95	1.28	1.89	3.07	4.16	4.52	1.59	.44	.72	.50
IN.	.39	.88	1.09	1.47	1.97	3.53	4.63	5.21	1.78	.50	.83	.56
CAL YR 1982	TOTAL	47989	MEAN 131	MAX 1000	MIN 22	CFSM 1.46	IN 19.84					
WTR YR 1983	TOTAL	55305	MEAN 152	MAX 1070	MIN 24	CFSM 1.69	IN 22.86					

## HUDSON RIVER BASIN

01331095 HUDSON RIVER AT STILLWATER, NY

LOCATION.--Lat 42°56'16", long 73°39'04" at Saratoga-Rensselaer County line, Hydrologic Unit 02020003, at bridge on Stillwater Bridge Road in Stillwater, 0.4 mi upstream from Champlain (Barge) Canal lock 4, and 0.9 mi upstream from Hoosic River.

DRAINAGE AREA.--3,773 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March, 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 78.99 ft National Geodetic Vertical Datum of 1929. Prior to January 1978, nonrecording gages in upper pool of Champlain (Barge) Canal lock 4, at Barge Canal datum.

REMARKS.--Water stage records are good above 3,000 ft<sup>3</sup>/s and fair below 3,000 ft<sup>3</sup>/s. Streamflow affected by regulation for power generation and diversion for canal operations.

AVERAGE DISCHARGE.--6 years, 6,380 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,600 ft<sup>3</sup>/s May 4, 1983, gage height, 8.69 ft; minimum daily, 900 ft<sup>3</sup>/s July 25, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44,600 ft<sup>3</sup>/s May 4, gage height, 8.69 ft; minimum daily, 900 ft<sup>3</sup>/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3570	2050	4580	5180	5270	5550	4530	28400	16100	3610	1630	3940
2	3160	3380	4630	4090	4780	5760	4230	39300	15800	3290	3800	3380
3	2220	3250	4430	4040	7890	5920	4430	43000	14700	2590	3570	3110
4	2050	3430	4330	4730	11200	5920	5130	44100	13800	1740	3660	2460
5	3200	4330	3710	4140	9230	5600	5130	40700	13600	1440	3430	2090
6	3200	5970	3520	3900	7540	4430	5340	34600	12900	3750	3340	2260
7	3020	7400	4480	3940	6780	4880	5080	29300	12200	3250	2590	2850
8	3250	5860	4630	4040	6510	6510	5650	25200	11400	2940	2720	2980
9	3900	5760	4180	3070	6020	8480	6350	24000	10200	2940	3380	3520
10	3570	5390	4090	2940	6290	7820	6950	24200	9380	2130	3480	2460
11	3070	4730	3380	4580	5490	8770	10200	23000	8330	1630	3250	2670
12	4140	4330	2550	5180	5290	8770	11900	21400	7340	3250	4230	2300
13	3800	4580	2590	5080	4180	7610	10800	20200	6020	2890	4480	1700
14	3480	4530	3290	4730	4430	7120	9530	18900	7470	2890	4480	3070
15	3520	3800	3480	4090	5230	7680	8620	18100	6560	2980	3850	3520
16	3380	4430	4040	3160	5180	7460	8480	17800	5440	3070	3710	2670
17	2760	4630	5030	3160	5290	7290	15500	13200	4880	2220	3520	2850
18	2670	4140	4880	4230	5650	7890	17700	10200	5550	1560	3520	2420
19	3710	3990	3990	4040	5180	8400	15900	8850	4380	2300	3430	2010
20	3610	3710	3850	3660	4480	10200	15900	9300	3710	2380	3480	2670
21	3430	2850	4430	3070	3990	10800	17600	10800	4730	2320	2420	3250
22	3610	3020	4090	3900	5030	12100	14500	10400	4430	2460	2300	3660
23	3660	4330	3610	3520	5290	10000	14100	10500	4480	2760	3200	3990
24	2890	4780	3750	5180	5550	8260	13500	10100	3750	1900	3290	4430
25	2490	4480	3250	6950	5230	7540	22100	8700	3430	900	3250	3290
26	2850	3990	3380	6450	5180	6400	33000	8400	2760	2510	3160	2720
27	3250	4140	4630	5860	3660	5390	31100	9770	2720	2630	2940	3520
28	3290	3660	5650	5440	3850	6180	26900	12300	3340	2670	2010	3250
29	3290	3990	6020	4830	---	6130	24700	13500	3710	2510	2170	3430
30	3340	4280	5810	3520	---	5600	25500	14300	3610	2630	3160	3430
31	2220	---	5490	3710	---	4880	---	16200	---	2220	3160	---
TOTAL	99600	129210	129770	134410	159690	225340	400350	618720	226720	78360	100610	89900
MEAN	3213	4307	4186	4336	5703	7269	13350	19960	7557	2528	3245	2997
MAX	4140	7400	6020	6950	11200	12100	33000	44100	16100	3750	4480	4430
MIN	2050	2050	2550	2940	3660	4430	4230	8400	2720	900	1630	1700
CAL YR 1982	TOTAL	2229040	MEAN	6107	MAX	33700	MIN	1190				
WTR YR 1983	TOTAL	2392680	MEAN	6555	MAX	44100	MIN	900				

01331095 HUDSON RIVER AT STILLWATER, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to 1975, 1977 to current year.

CHEMICAL DATA: 1969 (c), 1970-74 (d), 1975 (c), 1980 (b), 1981 (c), 1982-83 (e).

MINOR ELEMENTS DATA: 1972 (b), 1973-75 (a), 1977-79 (e), 1980 (c).

PESTICIDE DATA: 1977-79 (e), 1980 (a).

ORGANIC DATA: OC--1974 (a), 1975 (c).

PCB--1977-83 (e).

PCN--1977-79 (e), 1980 (a).

NUTRIENT DATA: 1969 (c), 1970-74 (d), 1975 (c), 1977-78 (e).

SEDIMENT DATA: 1977 (d), 1978 (a), 1981-83 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1977 to current year.

REMARKS.--No sediment data Nov. 27 to Jan. 31, Feb. 2-17 due to no observer.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 189 mg/L Jan. 4, 1979; minimum daily mean, 1 mg/L on many days each year.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 11,100 tons Apr. 26, 1983; minimum daily 4.0 Sept. 7, 1980.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean 125 mg/L Apr. 26; minimum daily mean, 1 mg/L on many days.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 11,100 tons Apr. 26; minimum daily, 4.9 tons July 25.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PCB, TOTAL (UG/L)	PCB, DIS- SOLVED (UG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT						
21...	1345	2980	<.10	--	4	32
NOV						
10...	1545	5130	<.10	--	5	69
FEB						
01...	1330	5080	<.10	--	1	14
25...	1245	5030	<.10	--	2	27
MAR						
16...	0945	7750	<.10	--	10	209
22...	1000	12500	<.10	--	23	776
22...	1330	12100	<.10	--	22	719
APR						
11...	0915	10200	<.10	--	35	964
11...	1300	10500	<.10	--	20	567
17...	1645	18700	.10	--	58	2930
17...	2115	19700	.20	--	77	4100
18...	0615	18100	.30	--	72	3520
18...	1020	17200	.30	--	--	--
18...	1040	17200	.20	--	--	--
18...	1100	17200	.20	--	--	--
20...	1145	15800	<.10	--	17	725
20...	1320	16000	<.10	<.1	17	734
20...	1615	16400	<.10	--	18	797
21...	1415	18100	<.10	--	40	1950
22...	1045	14100	<.10	--	13	495
25...	1430	23500	.10	--	51	3240
25...	1630	24700	.10	--	69	4600
25...	1640	24700	.10	--	69	4600
26...	1130	34200	.40	.2	123	11400
26...	1545	34200	.30	--	106	9790
27...	1530	30400	.20	--	32	2630
28...	1515	26500	.10	--	14	1000
MAY						
02...	1000	39600	1.0	--	94	10100
02...	1345	40400	.60	--	100	10900
03...	1200	43100	1.4	--	94	10900
04...	1545	44000	3.3	--	65	7720
JUN						
01...	1500	16100	.10	--	13	565
06...	1110	13000	.10	--	4	140
15...	0945	6950	.20	--	2	38
29...	1330	3430	.20	--	4	37
JUL						
08...	1225	2850	.10	<.1	2	15
14...	1430	2680	.10	--	1	7.2
21...	1230	2340	.10	--	2	13
AUG						
01...	1230	964	.10	--	2	5.2
14...	1630	4230	.30	--	3	34
18...	1600	3290	<.10	--	2	18
23...	1335	3160	<.10	--	2	17
25...	1430	3160	.10	.1	2	17
SEP						
08...	1615	2850	.10	--	1	7.7
23...	1600	4000	.10	--	7	76



## HUDSON RIVER BASIN

01331095 HUDSON RIVER AT STILLWATER, NY--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2	19	17	94					1	14	3	45
2	2	17	13	119					---	---	7	109
3	2	12	5	44					---	---	8	128
4	2	11	7	65					---	---	7	112
5	4	35	22	257					---	---	6	91
6	6	52	38	613					---	---	6	72
7	6	49	43	859					---	---	7	92
8	4	35	15	237					---	---	15	264
9	5	53	12	187					---	---	30	687
10	5	48	6	87					---	---	17	359
11	5	41	11	140					---	---	12	284
12	5	56	9	105					---	---	10	237
13	9	92	6	74					---	---	10	205
14	6	56	7	86					---	---	10	192
15	4	38	6	62					---	---	14	290
16	6	55	7	84					---	---	12	242
17	5	37	5	63					---	---	8	157
18	5	36	4	45					8	122	7	149
19	3	30	7	75					6	84	8	181
20	4	39	6	60					3	36	10	275
21	5	46	6	46					5	54	15	437
22	5	49	7	57					4	54	23	751
23	4	40	6	70					2	29	14	378
24	3	23	4	52					5	75	7	156
25	4	27	6	73					2	28	6	122
26	4	31	7	75					9	126	4	69
27	4	35	---	---					2	20	2	29
28	4	36	---	---					4	42	4	67
29	7	62	---	---					---	---	5	83
30	6	54	---	---					---	---	6	91
31	4	24	---	---					---	---	8	105
TOTAL	---	1238	---	3729					---	684	---	6459

DAY	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)			
APRIL			MAY			JUNE			JULY			AUGUST		SEPTEMBER	
1	6	73	38	2910	12	522	1	9.7	2	8.8	3	32			
2	4	46	92	9760	7	299	1	8.9	2	21	3	27			
3	4	48	94	10900	6	238	1	7.0	3	29	2	17			
4	5	69	73	8690	4	149	2	9.4	3	30	2	13			
5	7	97	42	4620	4	147	2	7.8	1	9.3	5	28			
6	8	115	18	1680	3	104	3	30	2	18	7	43			
7	7	96	15	1190	11	362	7	61	4	28	4	31			
8	2	31	10	680	4	123	2	16	2	15	3	24			
9	2	34	10	648	3	83	2	16	4	37	3	29			
10	6	113	9	588	3	76	1	5.8	2	19	2	13			
11	25	688	7	435	1	22	4	18	3	26	2	14			
12	22	707	24	1390	2	40	3	26	3	34	3	19			
13	10	292	7	382	1	16	4	31	5	60	6	28			
14	8	206	6	306	1	20	2	16	4	48	1	8.3			
15	6	140	6	293	2	35	3	24	2	21	3	29			
16	7	160	7	336	2	29	3	25	2	20	3	22			
17	44	1990	5	178	4	53	2	12	2	19	3	23			
18	57	2720	4	110	6	90	3	13	2	19	2	13			
19	24	1030	6	143	2	24	2	12	3	28	1	5.4			
20	18	773	8	201	3	30	2	13	2	19	2	14			
21	28	1330	7	204	4	51	2	13	8	52	3	26			
22	12	470	6	168	7	84	2	13	2	12	3	30			
23	10	381	8	227	2	24	2	15	4	35	7	75			
24	10	364	48	1310	3	30	2	10	6	53	6	72			
25	48	3150	13	305	6	56	2	4.9	3	26	5	44			
26	125	11100	5	113	4	30	2	14	7	60	1	7.3			
27	53	4450	14	369	5	37	2	14	3	24	7	67			
28	20	1450	22	731	4	36	4	29	4	22	5	44			
29	18	1200	10	364	4	40	2	14	2	12	7	65			
30	21	1450	8	309	2	19	2	14	3	26	9	83			
31	---	---	13	569	---	---	1	6.0	3	26	---	---			
TOTAL	---	34773	---	50109	---	2869	---	508.5	---	857.1	---	946.0			

## HUDSON RIVER BASIN

45

01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MA

LOCATION.--Lat 42°42'01", long 73°09'34", Berkshire County, Hydrologic Unit 02020003, on left bank 0.3 mi downstream from Sherman Brook and 2.7 mi east of junction of U.S. Highway 7 and State Highway 2 in Williamstown.

DRAINAGE AREA.--126 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: July 1940 to current year.  
Water-quality records: Water years 1953-54, 1957-58, 1967-69.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 616.11 ft, Corps of Engineers datum. Prior to June 6, 1979, at site 1.2 mi downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Prior to 1966, slight diurnal fluctuation at low flow caused by mills upstream. Some regulation by Cheshire Reservoir 16 mi upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--43 years, 273 ft<sup>3</sup>/s, 29.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft<sup>3</sup>/s Dec. 31, 1948, gage height, 14.85 ft, former site and datum, from rating curve extended above 4,300 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum, 5.8 ft<sup>3</sup>/s Aug. 30, 31, Oct. 26, 1940; minimum daily, 24 ft<sup>3</sup>/s Sept. 9, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 10	2330	2,750	8.46	Apr. 24	2030	2,770	8.47
Apr. 19	2345	*3,430	*8.97				

Minimum discharge, 27 ft<sup>3</sup>/s Sept. 10, 11, 17; minimum daily, 29 ft<sup>3</sup>/s Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	51	179	169	165	126	261	707	671	119	81	61
2	42	60	148	148	154	413	267	1550	521	300	108	57
3	37	57	129	142	977	380	353	925	435	233	78	52
4	37	57	124	104	820	280	382	746	591	143	70	41
5	37	284	117	119	400	234	390	630	494	147	61	40
6	37	195	121	148	305	246	354	526	391	219	62	41
7	37	93	126	138	268	346	429	448	480	147	56	42
8	50	76	116	129	266	339	922	429	361	115	44	41
9	92	66	106	108	244	324	827	591	311	111	50	41
10	69	60	82	105	186	311	1110	474	263	100	45	41
11	57	54	98	618	196	356	1740	422	228	93	60	29
12	49	60	94	420	210	385	874	379	204	86	98	33
13	49	278	81	242	190	327	640	344	182	76	75	35
14	65	214	86	171	180	304	564	316	168	76	56	37
15	66	123	86	179	170	334	498	404	191	69	54	38
16	73	100	470	185	160	362	534	467	385	73	51	37
17	63	90	493	192	157	374	706	361	441	63	50	40
18	57	79	230	179	161	365	629	316	238	54	56	44
19	57	76	186	170	147	1110	1300	284	200	57	62	40
20	54	72	173	150	146	1330	2420	356	168	54	54	40
21	63	69	158	140	142	883	1210	487	160	60	46	54
22	57	70	135	140	148	827	929	322	143	73	48	154
23	51	92	128	210	147	600	990	819	127	60	46	76
24	48	99	150	630	147	460	1650	1300	111	66	44	65
25	43	99	190	430	142	410	2110	612	100	69	39	52
26	48	93	358	283	126	355	1400	514	93	68	37	50
27	51	96	259	228	122	305	987	1320	93	62	35	53
28	51	76	251	195	129	324	879	787	228	59	38	53
29	48	198	267	192	---	359	729	591	209	54	103	51
30	48	265	213	185	---	290	801	860	147	57	53	49
31	48	---	172	173	---	270	---	1090	---	71	66	---
TOTAL	1626	3302	5526	6622	6605	13329	26885	19377	8334	3034	1826	1487
MEAN	52.5	110	178	214	236	430	896	625	278	97.9	58.9	49.6
MAX	92	284	493	630	977	1330	2420	1550	671	300	108	154
MIN	37	51	81	104	122	126	261	284	93	54	35	29
CFSM	.42	.87	1.41	1.70	1.87	3.41	7.11	4.96	2.21	.78	.47	.39
IN.	.48	.97	1.63	1.96	1.95	3.94	7.94	5.72	2.46	.90	.54	.44
CAL YR 1982	TOTAL	91328	MEAN	250	MAX	3530	MIN	37	CFSM	1.98	IN.	26.96
WTR YR 1983	TOTAL	97953	MEAN	268	MAX	2420	MIN	29	CFSM	2.13	IN.	28.92

## HUDSON RIVER BASIN

01333000 GREEN RIVER AT WILLIAMSTOWN, MA

LOCATION.--Lat 42°42'32", long 73°11'50", Berkshire County, Hydrologic Unit 02020003, on left bank 0.1 mi upstream from bridge on State Highway 2 at Williamstown and 0.8 mi upstream from mouth.

DRAINAGE AREA.--42.6 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: September 1949 to current year.  
Water-quality records: Water years 1967-69.

GAGE.--Water-stage recorder. Altitude of gage is 615 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Slight diurnal fluctuation at times caused by mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--34 years, 83.2 ft<sup>3</sup>/s, 26.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,060 ft<sup>3</sup>/s Dec. 21, 1973, gage height, 5.68 ft in gage well, from rating curve extended above 750 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 4.94 ft; maximum gage height, 6.35 ft Mar. 13, 1977, from floodmarks, gage height in well unknown; minimum discharge, 3.1 ft<sup>3</sup>/s Sept. 20, 22, 24, 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 31, 1948, reached a stage of about 7.5 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 850 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 19	2100	a*2650	4.90

a From rating curve extended as explained above.

Minimum discharge, 4.7 ft<sup>3</sup>/s Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	13	43	54	56	51	93	247	247	28	16	13
2	7.0	11	39	51	56	133	87	477	192	44	18	11
3	7.3	10	36	47	521	99	135	306	154	32	13	9.1
4	7.8	11	35	41	311	80	121	277	208	27	11	8.4
5	6.8	68	33	47	180	78	114	225	156	30	11	8.0
6	6.8	35	36	48	130	80	105	183	133	32	11	7.6
7	6.4	25	33	44	110	116	110	151	143	25	10	6.8
8	7.8	21	32	41	89	128	171	154	116	23	8.8	6.2
9	22	18	31	38	78	143	159	186	99	23	9.0	5.9
10	14	17	29	38	68	131	298	146	86	21	8.2	5.9
11	11	16	31	159	71	143	387	133	75	19	13	5.8
12	10	16	26	105	75	135	258	126	67	18	18	5.6
13	10	55	26	74	71	126	198	116	60	17	12	5.5
14	15	36	26	63	69	123	177	103	59	16	10	5.5
15	13	30	26	65	65	135	159	121	55	17	8.6	5.2
16	17	25	133	63	64	133	195	123	84	18	8.7	5.2
17	14	23	112	59	61	128	221	105	82	15	8.0	5.5
18	12	22	68	53	63	128	218	95	56	14	13	7.9
19	12	20	65	43	56	205	791	87	51	13	12	6.1
20	11	19	58	45	50	302	958	108	46	13	8.4	5.5
21	15	19	53	43	53	254	495	119	42	16	7.5	8.1
22	13	19	47	43	54	239	392	97	38	20	7.7	46
23	12	24	45	100	55	183	366	218	36	14	7.7	14
24	11	24	55	198	54	154	502	306	33	17	6.9	10
25	11	23	61	128	52	135	660	198	31	16	6.5	9.1
26	11	23	72	99	47	119	527	183	29	13	6.3	8.4
27	10	23	61	86	46	112	381	381	28	11	6.2	7.8
28	9.8	21	69	74	47	154	346	258	59	11	15	7.3
29	9.8	53	68	71	---	131	294	218	40	11	34	6.8
30	9.5	52	60	67	---	112	298	298	32	12	14	6.7
31	9.5	---	55	61	---	101	---	328	---	13	15	---
TOTAL	340.3	772	1564	2148	2652	4291	9216	6073	2537	599	354.5	263.9
MEAN	11.0	25.7	50.5	69.3	94.7	138	307	196	84.6	19.3	11.4	8.80
MAX	22	68	133	198	521	302	958	477	247	44	34	46
MIN	6.4	10	26	38	46	51	87	87	28	11	6.2	5.2
CFSM	.26	.60	1.19	1.63	2.22	3.24	7.21	4.60	1.99	.45	.27	.21
IN.	.30	.67	1.37	1.88	2.32	3.75	8.05	5.30	2.22	.52	.31	.23
CAL YR 1982	TOTAL	27639.6	MEAN	75.7	MAX	1060	MIN	6.4	CFSM	1.78	IN	24.14
WTR YR 1983	TOTAL	30810.7	MEAN	84.4	MAX	958	MIN	5.2	CFSM	1.98	IN	26.90



## HUDSON RIVER BASIN

47

01333500 LITTLE HOOSIC RIVER AT PETERSBURG, NY

LOCATION.--Lat 42°45'50", long 73°20'16", Rensselaer County, Hydrologic Unit 02020003, on left bank 100 ft downstream from highway bridge on dirt road, 1.0 mi downstream from Petersburg, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--56.1 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1951 to current year.

REVISED RECORDS.--WSP 1702: 1959.

GAGE.--Water-stage recorder. Datum of gage is 587.40 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--32 years, 94.2 ft<sup>3</sup>/s, 22.80 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft<sup>3</sup>/s June 30, 1973, gage height, 9.20 ft; minimum, 1.9 ft<sup>3</sup>/s Sept. 11, 12, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 31, 1948, reached a stage of 9.4 ft, from floodmarks, discharge, 7,470 ft<sup>3</sup>/s, on basis of contracted-opening measurements of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 ft<sup>3</sup>/s Apr. 19, gage height, 5.63 ft, only peak above base of 1,250 ft<sup>3</sup>/s; minimum, 4.0 ft<sup>3</sup>/s Sept. 12, 13, 14, 15, 16, 17, 20, 21, gage height, 1.15 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	8.4	58	69	84	61	116	304	178	28	10	6.5
2	5.9	7.3	52	64	82	200	107	478	148	33	12	5.5
3	5.9	6.4	48	61	721	154	140	365	125	30	9.0	5.3
4	5.9	6.8	45	44	474	128	138	330	165	26	8.4	5.1
5	5.9	57	42	55	270	121	125	273	132	26	8.4	4.9
6	5.9	26	49	53	170	123	116	225	114	26	7.9	4.7
7	5.9	20	45	49	140	169	119	190	140	22	13	4.6
8	6.4	17	41	46	120	178	183	190	104	20	9.0	4.3
9	16	14	39	36	100	209	169	304	87	21	8.4	4.3
10	7.3	13	39	37	110	192	285	244	77	19	7.9	4.6
11	5.9	13	41	207	98	217	387	217	67	18	13	4.3
12	5.5	12	34	146	90	212	285	187	59	16	17	4.2
13	5.5	125	31	101	84	187	225	163	52	16	12	4.0
14	7.3	51	30	81	78	187	185	142	72	14	9.7	4.2
15	6.8	36	37	76	73	209	160	158	62	14	7.9	4.0
16	6.8	29	132	72	70	220	197	165	112	14	7.3	4.0
17	6.8	26	128	68	72	215	239	132	150	13	6.8	4.4
18	6.4	24	88	66	81	209	239	116	84	11	12	5.0
19	5.9	23	72	64	72	276	662	105	68	10	10	4.4
20	5.9	22	64	62	64	372	891	134	57	9.0	7.9	4.3
21	5.9	21	57	62	67	365	587	185	50	13	6.8	8.6
22	5.9	22	52	60	70	333	592	134	43	22	6.8	34
23	5.9	34	50	110	74	253	592	180	38	13	6.8	11
24	5.5	33	78	279	73	204	783	330	36	13	6.4	7.3
25	5.5	31	88	170	68	167	1070	228	32	12	5.9	6.8
26	5.5	29	93	135	61	140	794	200	30	9.7	5.9	6.4
27	5.5	29	76	115	55	126	554	320	29	9.0	5.7	5.9
28	5.5	27	94	100	57	225	445	241	59	7.9	5.5	5.5
29	5.5	82	91	96	---	178	358	207	43	7.9	5.6	5.5
30	5.1	72	80	90	---	140	379	202	32	7.9	5.8	5.1
31	5.5	---	72	86	---	126	---	202	---	9.7	7.5	---
TOTAL	195.1	916.9	1946	2760	3578	6096	11122	6851	2445	511.1	266.3	188.7
MEAN	6.29	30.6	62.8	89.0	128	197	371	221	81.5	16.5	8.59	6.29
MAX	16	125	132	279	721	372	1070	478	178	33	17	34
MIN	5.1	6.4	30	36	55	61	107	105	29	7.9	5.5	4.0
CFSM	.11	.55	1.12	1.59	2.28	3.51	6.61	3.94	1.45	.29	.15	.11
IN.	.13	.61	1.29	1.83	2.37	4.04	7.37	4.54	1.62	.34	.18	.13
CAL YR 1982	TOTAL	31330.5	MEAN	85.8	MAX	941	MIN	5.1	CFSM	1.53	IN	20.77
WTR YR 1983	TOTAL	36876.1	MEAN	101	MAX	1070	MIN	4.0	CFSM	1.80	IN	24.45

## HUDSON RIVER BASIN

01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT

LOCATION.--Lat 42°54'47", long 73°15'25", Bennington County, Hydrologic Unit 02020003, on left bank 0.6 mi downstream from Paran Creek and 1.4 mi south of North Bennington.

DRAINAGE AREA.--111 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: June 1931 to current year.  
Water-quality records: Water years 1953-54.

REVISED RECORDS.--WSP 781: 1933(M).

GAGE.--Water-stage recorder. Altitude of gage is 525 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Occasional diurnal fluctuation at low flow caused by mills upstream; diurnal fluctuation greater prior to 1960. Diversion upstream for municipal supply of Bennington and North Bennington since 1961. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--52 years, 221 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,450 ft<sup>3</sup>/s Sept. 21, 1938, gage height, 12.04 ft, from rating curve extended above 2,800 ft<sup>3</sup>/s on basis of contracted-opening measurements at gage heights 10.13 ft, 10.49 ft, 11.50 ft, and 12.04 ft and slope-area measurement and computation of flow over dam at gage height 12.04 ft; minimum, 4 ft<sup>3</sup>/s Sept. 27, 1932; minimum daily, 21 ft<sup>3</sup>/s Sept. 22, 23, 1964, July 12, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 3,840 ft<sup>3</sup>/s May 24, gage height, 7.86, no other peak above base of 2,000 ft<sup>3</sup>/s; minimum discharge 31 ft<sup>3</sup>/s Sept. 15-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	77	212	161	128	109	199	763	468	114	60	75
2	43	75	174	146	125	180	200	1170	387	173	71	53
3	42	61	153	134	732	194	256	877	335	141	67	46
4	42	58	142	95	651	150	263	776	420	110	58	44
5	42	324	132	88	338	132	258	621	390	103	55	43
6	41	167	164	100	258	135	228	511	322	105	55	41
7	41	99	161	96	232	188	276	450	488	96	52	39
8	45	77	132	92	221	189	650	413	345	87	48	36
9	71	70	120	89	193	189	583	705	277	88	48	36
10	64	64	92	89	185	177	768	543	242	86	46	39
11	53	62	84	401	175	197	1240	483	216	78	53	38
12	48	68	80	321	165	211	715	467	196	74	67	35
13	48	722	76	181	155	189	557	401	175	69	60	35
14	59	317	74	137	150	177	538	358	159	65	52	36
15	59	181	102	136	140	201	508	414	150	63	47	34
16	68	136	290	135	135	222	527	498	286	63	42	32
17	64	115	363	127	130	237	619	382	624	60	41	41
18	59	103	171	120	125	225	556	327	321	58	47	60
19	56	95	149	115	125	494	731	293	352	56	48	46
20	53	90	138	110	120	811	1110	342	224	54	46	41
21	56	87	126	110	115	555	722	399	175	55	41	54
22	54	91	112	110	110	518	607	310	150	58	45	316
23	53	169	109	278	110	370	639	812	135	55	55	108
24	51	157	164	522	105	297	1020	1780	122	58	47	71
25	49	142	242	322	105	253	1520	706	116	65	43	59
26	48	120	385	224	105	224	1120	546	114	58	41	71
27	46	111	256	173	101	210	875	771	119	53	40	76
28	46	97	278	164	103	298	876	584	209	49	39	70
29	46	292	275	147	---	307	811	481	219	49	38	52
30	46	323	211	139	---	234	927	519	143	52	48	44
31	48	---	174	135	---	207	---	566	---	62	110	---
TOTAL	1586	4550	5341	5197	5337	8080	19899	18268	7879	2357	1610	1771
MEAN	51.2	152	172	168	191	261	663	589	263	76.0	51.9	59.0
MAX	71	722	385	522	732	811	1520	1780	624	173	110	316
MIN	41	58	74	88	101	109	199	293	114	49	38	32

CAL YR 1982 TOTAL 79173 MEAN 217 MAX 2500 MIN 37  
WTR YR 1983 TOTAL 81875 MEAN 224 MAX 1780 MIN 32

## 01334500 HOOSIC RIVER NEAR EAGLE BRIDGE, NY

LOCATION.--Lat 42°56'19", long 73°22'39", Rensselaer County, Hydrologic Unit 02020003, on right bank 0.5 mi upstream from Case Brook, 1.2 mi downstream from Walloomsac River, and 1.2 mi southeast of Eagle Bridge.

DRAINAGE AREA.--510 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1910 to March 1922, July 1923 to current year.

REVISED RECORDS.--WSP 741: Drainage area. WSP 756: 1913(m). WSP 1302: 1922(M). WSP 1432: 1913 (minimum gage height). WSP 1502: 1911-12, 1914, 1920-21, 1928(M), 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 355.41 ft National Geodetic Vertical Datum of 1929. Prior to March 1922, nonrecording gage and July 24, 1923 to July 18, 1936, water-stage recorder, at site 0.2 mi upstream at different datums.

REMARKS.--Records good except those for winter periods, which are poor. Diurnal fluctuation at medium and low flow caused by powerplants above station.

AVERAGE DISCHARGE.--71 years (1911-21, 1924-83), 944 ft<sup>3</sup>/s, 25.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,400 ft<sup>3</sup>/s Dec. 31, 1948, gage height, 21.15 ft, from highwater mark in gage house, from rating curve extended above 13,000 ft<sup>3</sup>/s on basis of peak flow over downstream dams and contracted-opening measurements at gage heights 17.8 ft and 21.15 ft; minimum, 24 ft<sup>3</sup>/s Sept. 14, 1913; minimum daily, 30 ft<sup>3</sup>/s Sept. 14, 1913.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 11	0430	7,990	8.74	Apr. 25	0445	9,640	9.46
Apr. 20	0430	*12,100	*10.42	May 24	0515	9,570	9.43

Minimum discharge, 86 ft<sup>3</sup>/s Sept. 16; minimum daily, 95 ft<sup>3</sup>/s Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	154	722	659	670	573	1060	3180	2550	457	200	238
2	136	188	599	612	687	1090	1020	5210	2050	573	269	172
3	130	172	529	579	3900	1380	1230	4050	1720	750	238	130
4	130	161	492	434	3930	1050	1430	3470	2000	492	204	130
5	126	645	463	474	2090	901	1330	2910	1940	422	192	130
6	130	619	474	541	1400	909	1200	2430	1530	504	188	140
7	130	357	510	504	1250	1120	1260	2080	1920	451	180	126
8	130	278	445	474	1150	1270	2380	1840	1510	379	172	113
9	192	242	411	400	1100	1410	2450	2910	1250	357	158	123
10	225	216	327	379	1200	1280	2710	2350	1100	347	154	101
11	176	204	373	1420	1100	1440	6120	2070	964	307	161	107
12	158	204	347	1570	980	1510	3400	1890	862	292	246	113
13	150	1220	275	964	900	1370	2560	1670	772	274	229	95
14	169	925	270	701	860	1270	2250	1510	701	255	188	110
15	184	541	357	660	810	1450	2030	1590	722	242	161	104
16	188	417	708	620	770	1580	2080	1970	885	242	154	98
17	188	357	1730	600	750	1600	2940	1580	2200	229	150	98
18	172	322	862	580	880	1520	2840	1360	1120	216	158	140
19	161	297	660	560	800	2260	3720	1220	989	212	192	147
20	154	278	560	550	666	3890	9940	1300	780	204	172	113
21	158	269	520	540	645	2940	5440	1840	666	200	150	130
22	161	274	500	530	680	2920	4140	1400	592	246	143	560
23	154	400	492	700	694	2140	4110	2420	529	216	161	363
24	143	422	579	1300	687	1690	5060	6520	474	204	143	204
25	136	417	802	3500	652	1450	8730	3080	434	238	123	176
26	136	363	1150	2400	599	1260	6360	2370	411	212	143	176
27	136	363	973	1500	529	1180	4460	3860	422	196	113	184
28	133	312	917	1100	560	1480	3820	3080	612	184	113	165
29	133	625	981	920	---	1560	3340	2370	862	172	158	154
30	133	956	832	820	---	1250	3650	2450	548	172	196	140
31	133	---	694	750	---	1120	---	3490	---	200	242	---
TOTAL	4725	12198	19554	27341	30939	47863	103060	79470	33115	9445	5451	4780
MEAN	152	407	631	882	1105	1544	3435	2564	1104	305	176	159
MAX	225	1220	1730	3500	3930	3890	9940	6520	2550	750	269	560
MIN	126	154	270	379	529	573	1020	1220	411	172	113	95
CFSM	.30	.80	1.24	1.73	2.17	3.03	6.74	5.03	2.17	.60	.35	.31
IN.	.34	.89	1.43	1.99	2.26	3.49	7.52	5.80	2.42	.69	.40	.35
CAL YR 1982	TOTAL	318361	MEAN	872	MAX	11300	MIN	121	CFSM	1.71	IN	23.22
WTR YR 1983	TOTAL	377941	MEAN	1035	MAX	9940	MIN	95	CFSM	2.03	IN	27.57

## HUDSON RIVER BASIN

01335754 HUDSON RIVER ABOVE LOCK 1 NEAR WATERFORD, NY

LOCATION.--Lat 42°49'45", long 73°40'00", Saratoga County, Hydrologic Unit 02020003, 0.4 mi upstream from dam at Lock 1C and 3.4 mi downstream from dam at Lock 2C Champlain (Barge) Canal.

DRAINAGE AREA.--4,611 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1976 to current year. Prior to October 1981 published as 01335770 Hudson River at Waterford, NY.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to February 1978, nonrecording gage 200 ft downstream of this site.

REMARKS.--Records good except those below 4,000 ft<sup>3</sup>/s and those during winter periods, which are poor. Streamflow affected by regulation for power generation and diversion for canal operations.

AVERAGE DISCHARGE.--7 years, 8,143 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,800 ft<sup>3</sup>/s Mar. 15, 1977; minimum daily, 1,170 ft<sup>3</sup>/s July 25, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52,000 ft<sup>3</sup>/s May 4, elevation 35.59 ft; minimum daily, 1,170 ft<sup>3</sup>/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3610	2070	5820	5840	6130	6360	6000	34400	21200	4120	1960	4240
2	3500	3710	5430	4810	5900	6780	5400	46700	20100	3700	4240	3700
3	2570	3570	5280	4500	10400	7360	5870	50400	18300	3280	4280	3200
4	1980	3960	5170	5370	19500	7630	6610	50500	17300	2700	4010	2720
5	3300	4750	4610	4750	13800	7070	6750	45000	17400	2310	3700	2460
6	3360	6370	3990	4160	10900	5930	6680	38700	16000	4120	3450	2630
7	3160	8340	5430	4530	8790	6100	6540	33200	15600	3850	2990	3030
8	3400	6290	5550	4560	8300	8180	7400	28800	14400	3370	3010	2910
9	3850	6090	5100	3710	8140	10700	9180	28900	12700	3370	4160	3520
10	3990	5860	4420	3390	8590	10300	9710	28300	11500	3030	3670	2840
11	3230	5090	3790	5280	7110	11200	18000	26400	10300	1910	3590	2820
12	4350	4790	3040	6780	6850	11600	17800	24800	8860	3670	4720	2600
13	4060	5200	2780	6640	5900	10300	13900	23300	7180	3060	4930	2080
14	3740	5780	3550	5460	5770	9530	12600	21900	8860	3130	5050	2960
15	3740	4830	3790	4320	6920	10200	11400	20900	7660	3300	4120	3520
16	3610	4980	4210	4060	6130	10100	11400	21200	6170	3280	4010	2890
17	3260	5130	6160	4210	6100	9890	19400	16000	6400	2720	3780	2940
18	2670	4720	6330	6100	6540	10200	22700	12700	7090	1910	3850	2700
19	3960	4570	5040	5550	6330	11000	21100	10900	5690	2770	3820	2310
20	3920	4210	3980	4890	5610	15000	28300	11500	4680	2820	3780	2820
21	3670	3500	5010	4420	4670	15700	27900	13600	5430	2960	3110	3450
22	3890	3260	4700	4400	5900	17200	22100	12900	4760	3030	2510	4010
23	3920	5170	4320	4420	6160	13900	20200	13600	5220	3010	3410	4760
24	3330	5510	4320	6330	6470	10900	19900	19100	4090	2670	3480	4800
25	2890	5130	4190	10400	6000	9840	32200	13700	3970	1170	3370	3520
26	3190	4680	4500	9310	5840	8260	42600	12600	3080	2870	3340	2890
27	3540	4680	5680	8710	4560	6750	38400	14800	3030	3030	3110	3560
28	3610	4240	6640	7550	4420	7820	32800	18000	3700	3080	2770	3480
29	3610	4500	6890	6570	---	8060	29600	18000	4240	2910	2580	3520
30	3740	5050	7110	4890	---	7440	31200	18500	4480	2960	3340	3590
31	2760	---	6470	4160	---	6500	---	21700	---	2960	3520	---
TOTAL	107410	146030	153300	170070	207730	297800	543640	751000	279390	93070	111660	96470
MEAN	3465	4868	4945	5486	7419	9606	18120	24230	9313	3002	3602	3216
MAX	4350	8340	7110	10400	19500	17200	42600	50500	21200	4120	5050	4800
MIN	1980	2070	2780	3390	4420	5930	5400	10900	3030	1170	1960	2080
CAL YR 1982	TOTAL	2715750	MEAN	7440	MAX	41200	MIN	1400				
WTR YR 1983	TOTAL	2957570	MEAN	8103	MAX	50500	MIN	1170				



## HUDSON RIVER BASIN

51

01335770 HUDSON RIVER AT WATERFORD, NY

LOCATION.--Lat 42°47'19", long 73°40'28", at Saratoga-Rensselaer County line, Hydrologic Unit 02020003, at bridge on U.S. Highway 4 in Waterford, 0.4 mi upstream from first branch of Mohawk River, and 2.8 mi downstream from dam at lock 1 of the Champlain (Barge) Canal.

DRAINAGE AREA.--4,620 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL DATA: 1975-76 (b), 1977 (c), 1978-79 (d), 1980-83 (e).

MINOR ELEMENTS DATA: 1975-76 (c), 1977-79 (e), 1980-81 (d), 1982 (a), 1983 (b).

PESTICIDE DATA: 1975 (b), 1976 (d), 1977-79 (e), 1980, 1982 (a).

ORGANIC DATA: OC--1975-77 (c), 1978 (d), 1979 (c).

PCB--1975 (b), 1976 (d), 1977-83 (e).

PCN--1977-79 (e), 1980, 1982 (a).

NUTRIENT DATA: 1975-76 (c), 1977-78 (e), 1979-81 (d).

BIOLOGICAL DATA:

Bacteria--1977 (c), 1978 (d), 1979 (e), 1980-81 (d).

SEDIMENT DATA: 1975 (b), 1976-77 (e), 1978 (a), 1979 (b), 1980 (c), 1981-83 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1976 to current year.

REMARKS.--Water discharge data based on records obtained above Lock 1 near Waterford (station 01335754) 3.2 mi upstream. No sediment data Jan. 18-31 and Feb. 2-18 due to ice cover.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 810 mg/L March 14, 1977; minimum daily mean, 1 mg/L on many days.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 119,000 tons March 14, 1977; minimum daily, 3.9 tons Sept. 7, 1981.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 128 mg/L Apr. 20; minimum daily mean, 1 mg/L on many days.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 15,300 tons May 4; minimum daily, 7.2 tons Oct. 18.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PCB, TOTAL (UG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT					
21...	1530	3040	.10	4	33
NOV					
10...	1715	5390	<.10	5	73
FEB					
01...	1430	6160	.10	4	67
25...	1515	6000	<.10	2	32
MAR					
16...	0800	10400	<.10	10	281
22...	1430	17600	<.10	42	2000
APR					
11...	1115	20300	<.10	67	3670
11...	1415	20700	<.10	73	4080
17...	1815	23900	<.10	47	3030
18...	0815	23000	.20	75	4660
18...	1330	21700	.30	61	3570
20...	1115	29600	--	108	8630
20...	1200	29800	.10	130	10500
20...	1445	30600	<.10	189	15600
21...	1500	27500	.10	53	3940
22...	1230	21800	<.10	25	1470
25...	1615	35500	.10	85	8150
25...	1730	36200	.10	82	8010
26...	1300	44000	.20	141	16800
26...	1630	43300	.30	120	14000
28...	1600	32400	.10	25	2190
MAY					
01...	1730	35400	.20	19	1820
02...	1100	46300	.70	84	10500
02...	1700	50000	1.0	83	11200
03...	1245	50200	.40	98	13300
04...	1715	49900	.30	126	17000
06...	1100	39500	.40	26	2770

## HUDSON RIVER BASIN

01335770 HUDSON RIVER AT WATERFORD, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PCB, TOTAL (UG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
JUN					
01...	1630	21200	.20	19	1090
06...	0740	16400	.20	7	310
15...	0845	8800	.10	6	143
29...	1415	4360	.10	4	47
JUL					
08...	1115	3230	.10	5	44
14...	1615	3230	.10	5	44
15...	0830	3130	.10	5	42
16...	1315	3370	.10	5	45
17...	1300	2870	.10	2	15
18...	1400	2000	.10	2	11
19...	1545	2640	.20	3	21
20...	1545	2770	.20	5	37
21...	1345	2790	.10	5	38
AUG					
01...	1145	1150	.10	5	16
14...	1730	4970	.20	3	40
18...	1700	3860	.10	2	21
23...	1430	3340	.10	4	36
25...	1600	3410	.10	4	37
SEP					
08...	1730	3060	<.10	1	8.3
23...	1645	5050	<.10	12	164

MINOR ELEMENTS DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	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)
APR				
11...	1115	1800	20	110
11...	1415	1000	10	30
20...	1200	2800	5	200
MAY				
02...	1100	2000	10	90
02...	1700	2900	20	110

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
APR									
20...	1115	29600	108	82	89	94	99	100	--
MAY									
02...	1100	46300	84	66	75	81	86	90	100

01335770 HUDSON RIVER AT WATERFORD, NY--Continued  
 SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7	68	4	22	3	47	3	47	4	66	7	120
2	4	38	5	50	3	44	2	26	---	---	5	92
3	4	28	4	39	2	29	1	12	---	---	5	99
4	5	27	4	43	2	28	4	58	---	---	4	82
5	4	36	6	77	2	25	3	38	---	---	3	57
6	6	54	8	138	3	32	1	11	---	---	4	64
7	4	34	10	225	2	29	1	12	---	---	8	132
8	5	46	6	102	6	90	2	25	---	---	9	199
9	4	42	3	49	4	55	4	40	---	---	10	289
10	4	43	4	63	3	36	4	37	---	---	8	222
11	3	26	3	41	2	20	4	57	---	---	8	242
12	2	23	3	39	2	16	3	55	---	---	9	282
13	3	33	4	56	3	23	2	36	---	---	7	195
14	1	10	3	47	12	115	3	44	---	---	6	154
15	1	10	4	52	15	153	6	70	---	---	5	138
16	1	9.7	6	81	6	68	5	55	---	---	8	218
17	1	8.8	2	28	8	133	5	57	---	---	6	160
18	1	7.2	3	38	4	68	---	---	---	---	9	248
19	1	11	2	25	5	68	---	---	3	51	6	178
20	3	32	1	11	3	32	---	---	3	45	18	729
21	4	40	1	9.5	1	14	---	---	1	13	23	975
22	3	32	1	8.8	2	25	---	---	1	16	49	2280
23	2	21	1	14	7	82	---	---	1	17	20	751
24	2	18	3	45	5	58	---	---	6	105	10	294
25	2	16	2	28	4	45	---	---	6	97	8	213
26	1	8.6	4	51	3	36	---	---	6	95	3	67
27	2	19	3	38	5	77	---	---	6	74	4	73
28	3	29	1	11	6	108	---	---	6	72	10	211
29	4	39	2	24	6	112	---	---	---	---	5	109
30	6	61	2	27	5	96	---	---	---	---	6	121
31	4	30	---	---	4	70	---	---	---	---	5	88
TOTAL	---	900.3	---	1482.3	---	1834	---	680	---	651	---	9082

DAY	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4	65	21	1950	19	1090	6	67	4	21	3	34
2	4	58	60	7570	11	597	8	80	5	57	5	50
3	4	63	92	12500	10	494	7	62	5	58	6	52
4	3	54	112	15300	9	420	8	58	4	43	3	22
5	4	73	60	7290	12	564	8	50	3	30	7	46
6	4	72	25	2610	10	432	8	89	2	19	4	28
7	3	53	19	1700	10	421	5	52	1	8.1	4	33
8	3	60	14	1090	8	311	5	45	5	41	1	7.9
9	5	124	17	1330	6	206	6	55	6	67	6	57
10	6	157	12	917	6	186	8	65	4	40	6	46
11	49	2380	10	713	8	222	8	41	5	48	5	38
12	33	1590	35	2340	5	120	7	69	5	64	6	42
13	17	638	74	4660	6	116	6	50	5	67	5	28
14	8	272	15	887	6	144	5	42	6	82	6	48
15	4	123	10	564	5	103	4	36	4	44	8	76
16	5	154	11	630	10	167	5	44	3	32	6	47
17	30	1780	8	346	9	156	4	29	3	31	5	40
18	62	3800	8	274	6	115	4	21	2	21	6	44
19	44	2510	10	294	5	77	6	45	4	41	5	31
20	128	9780	6	186	5	63	5	38	12	122	3	23
21	110	8290	8	294	5	73	8	64	5	42	5	47
22	21	1250	6	209	3	39	7	57	5	34	4	43
23	14	764	9	330	6	85	7	57	4	37	10	129
24	15	806	58	2990	3	33	7	50	4	38	4	52
25	69	6360	19	703	3	32	6	19	4	36	3	29
26	124	14300	20	680	4	33	7	54	7	63	1	7.8
27	50	5180	21	839	6	49	7	57	4	34	4	38
28	26	2300	25	1220	8	80	7	58	6	45	6	56
29	23	1840	18	875	4	46	4	31	5	35	4	38
30	21	1770	18	899	6	73	3	24	5	45	4	39
31	---	---	19	1110	---	---	4	32	5	48	---	---
TOTAL	---	66666	---	73300	---	6547	---	1541	---	1393.1	---	1271.7

## HUDSON RIVER BASIN

01336000 MOHAWK RIVER BELOW DELTA DAM, NEAR ROME, NY

LOCATION.--Lat 43°15'52", long 75°26'12", Oneida County, Hydrologic Unit 02020004, on right bank at Rome Fish Hatchery, 1.0 mi downstream from Delta Dam, and 4.0 mi north of Rome.

DRAINAGE AREA.--150 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 851: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 474.00 ft Barge Canal datum. Prior to Jan. 24, 1937, nonrecording gage at site 200 ft downstream at same datum.

REMARKS.--Records good. During canal navigation season, water is diverted from Black River through Forestport feeder and Black River Canal (flowing south) into basin above Delta Reservoir. Flow regulated by Delta Reservoir (usable capacity, 2,800 mil ft<sup>3</sup>) except for March 20 to June 15, when reservoir spilled. Small quantity of water diverted from Delta Reservoir for fish hatchery use and later returned to river, part above and part below station.

AVERAGE DISCHARGE.--62 years, 377 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,560 ft<sup>3</sup>/s Oct. 2, 1945, gage height, 11.18 ft; minimum, 18 ft<sup>3</sup>/s July 21, 27, 1983, gage height, 0.64 ft; minimum daily, 45 ft<sup>3</sup>/s Jan. 17, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,870 ft<sup>3</sup>/s Apr. 16, gage height, 7.80 ft; minimum, 18 ft<sup>3</sup>/s July 21, 27, gage height, 0.64 ft; minimum daily, 161 ft<sup>3</sup>/s Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	265	251	165	190	191	197	292	1180	489	189	231	224
2	265	254	162	189	193	198	297	1280	417	189	230	221
3	265	253	161	188	292	199	349	1500	322	189	229	221
4	264	258	163	188	225	198	420	1230	294	188	227	221
5	262	277	163	189	204	206	413	918	302	187	226	221
6	262	263	183	189	200	201	367	678	285	186	226	221
7	262	259	186	189	198	242	336	523	325	186	229	221
8	264	256	190	189	196	213	396	585	272	186	227	221
9	270	255	181	187	196	218	388	1160	213	186	227	219
10	268	254	180	187	196	209	488	853	177	186	226	219
11	265	254	180	202	196	220	713	627	282	186	227	219
12	265	260	179	200	196	207	591	489	281	186	230	219
13	263	275	181	193	194	204	463	399	242	186	228	219
14	263	261	176	190	195	203	367	338	237	185	226	219
15	264	259	168	189	194	202	700	319	237	184	226	219
16	263	256	215	189	194	200	3340	386	237	184	226	216
17	262	256	178	189	196	198	2190	352	239	184	224	216
18	262	254	169	189	198	198	1490	295	254	184	224	216
19	251	254	169	189	198	201	1040	359	239	184	224	216
20	259	253	168	191	196	261	768	577	237	183	221	216
21	259	273	169	191	198	352	664	549	236	184	221	221
22	258	290	168	191	200	561	615	415	234	226	221	224
23	256	291	167	196	201	495	784	452	234	356	221	216
24	256	287	192	207	199	394	1300	400	218	322	221	214
25	256	276	205	200	196	327	2100	321	191	277	221	214
26	255	271	218	197	195	273	1590	313	190	277	221	214
27	254	271	196	196	194	259	1090	321	189	213	221	211
28	254	269	231	194	195	268	789	273	190	227	221	211
29	253	297	208	191	---	335	662	235	189	227	221	211
30	251	213	195	191	---	315	987	292	189	227	221	211
31	251	---	190	191	---	297	---	400	---	229	229	---
TOTAL	8067	7900	5656	5951	5626	8051	25989	18019	7641	6483	6973	6531
MEAN	260	263	182	192	201	260	866	581	255	209	225	218
MAX	270	297	231	207	292	561	3340	1500	489	356	231	224
MIN	251	213	161	187	191	197	292	235	177	183	221	211
CAL YR 1982	TOTAL	134451	MEAN	368	MAX	2320	MIN	161				
WTR YR 1983	TOTAL	112887	MEAN	309	MAX	3340	MIN	161				



## HUDSON RIVER BASIN

55

## 01346000 WEST CANADA CREEK AT KAST BRIDGE, NY

LOCATION.--Lat 43°04'08", long 74°59'26", Herkimer County, Hydrologic Unit 02020004, on left bank 600 ft downstream from bridge on old State Highway 28 at Kast Bridge, 1.2 mi downstream from North Creek, 2.2 mi north of Herkimer, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--556 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1907, April to December 1907, March 1908 to December 1909, April 1910 to December 1913, April to December 1914, April 1915 to January 1917, April to November 1917, April to June 1918, October 1920 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage height and discharge measurements only, May 1905 to December 1906.

GAGE.--Water-stage recorder. Datum of gage is 438.99 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 18, 1920, nonrecording gage at former highway bridge 500 ft upstream at different datum.

REMARKS.--Records good, except those for winter periods and those for periods of no gage height record (Aug. 11 to Sept. 30), which are poor. Since March 1914, flow regulated by Hinckley Reservoir, 31 mi above station (usable capacity, 3,320 mil ft<sup>3</sup>). Diurnal fluctuation at low and medium flow caused by powerplants above station. Diversion at Trenton Falls, 26 mi above station, by Ninemile feeder since 1915 during canal navigation season. Diversion from Hinckley Reservoir for Utica water supply returned to Mohawk River.

AVERAGE DISCHARGE.--63 years (1921-83), 1,316 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 ft<sup>3</sup>/s Mar. 26, 1913, from reports of State Engineer and Surveyor; maximum gage height, 10.47 ft probably Feb. 17, 1943, from floodmark in gage well (ice jam); minimum discharge, 20 ft<sup>3</sup>/s Sept. 3, 1929, gage height, 0.90 ft; minimum daily, 59 ft<sup>3</sup>/s Sept. 2, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 ft<sup>3</sup>/s May 2, gage height, 6.56 ft; minimum recorded discharge, 172 ft<sup>3</sup>/s July 31, but may have been less during period of no gage height record (Aug. 11 to Sept. 30); minimum daily discharge, 289 ft<sup>3</sup>/s July 24, 25, but may have been less during period of no gage height record (Aug. 11 to Sept. 30).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	489	558	1140	1320	1190	1090	1570	7460	1820	790	537	670
2	576	716	923	1290	1190	998	1320	10300	1600	630	519	510
3	317	558	884	1400	3500	1170	1400	10200	1520	610	324	440
4	353	728	897	1340	2460	1020	1440	8770	1290	630	404	400
5	540	972	847	1380	1300	1200	1430	6020	1290	670	381	400
6	532	834	947	1270	1200	1060	1380	4050	1280	650	331	390
7	523	762	910	1350	1100	2100	1540	2860	1650	440	338	450
8	694	585	859	1270	1100	1760	1870	2750	1940	380	366	370
9	603	621	810	1270	1000	1820	1540	3060	1600	370	381	390
10	379	694	923	1220	1100	1540	1660	2660	1310	440	345	400
11	353	594	1500	1590	1200	1820	1990	2360	1140	440	440	480
12	532	621	1500	1590	1150	1500	1660	2030	721	400	560	360
13	603	810	1300	1270	1090	1170	1650	1730	711	346	970	440
14	661	640	1300	1340	1070	1210	1380	1490	753	330	620	520
15	683	661	1200	1240	1060	1170	2050	1600	743	351	480	330
16	576	798	1200	1290	1060	1130	5820	1750	711	466	410	320
17	405	640	1100	1180	1210	1220	3020	1400	732	510	400	420
18	498	498	1100	1180	1210	1210	2440	1320	690	426	450	460
19	651	338	1200	1240	1200	1340	2100	1340	660	448	590	450
20	612	405	1300	1380	1150	1280	1980	1900	740	552	490	570
21	661	705	1050	1230	1220	1430	1650	1650	770	389	440	630
22	651	1170	984	1240	1240	1960	1700	1400	720	461	440	1100
23	549	1560	1060	1460	1070	1570	2260	1820	730	565	560	890
24	405	1120	1400	1980	1140	1360	3180	1520	750	289	520	600
25	362	972	2160	1510	1140	1600	4190	1440	740	289	430	530
26	640	984	2910	1320	1020	1370	4630	1730	660	446	450	490
27	694	751	1730	1280	912	1270	4110	1550	580	387	400	470
28	716	594	2660	1240	1040	1410	3460	1010	740	427	420	460
29	631	972	2310	1230	---	1660	3340	1040	750	411	390	470
30	549	1480	1710	1190	---	1700	4380	1150	740	435	410	570
31	506	---	1350	1190	---	1600	---	1460	---	366	670	---
TOTAL	16944	23341	41164	41280	35322	43738	72140	90820	30081	14344	14466	14980
MEAN	547	778	1328	1332	1262	1411	2405	2930	1003	463	467	499
MAX	716	1560	2910	1980	3500	2100	5820	10300	1940	790	970	1100
MIN	317	338	810	1180	912	998	1320	1010	580	289	324	320

CAL YR 1982 TOTAL 455923 MEAN 1249 MAX 7080 MIN 245  
WTR YR 1983 TOTAL 438620 MEAN 1202 MAX 10300 MIN 289

NOTE.--No gage height record Aug. 11 to Sept. 30.

## 01347000 MOHAWK RIVER NEAR LITTLE FALLS, NY

LOCATION.--Lat 43°00'52", long 74°46'48", Herkimer County, Hydrologic Unit 02020004, on left bank 1,800 ft downstream from Rocky Rift Dam, 2.1 mi upstream from East Canada Creek, and 4.5 mi southeast of city of Little Falls.

DRAINAGE AREA.--1,348 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1927 to current year.

REVISED RECORDS.--WSP 741: 1929(M), Drainage area. WSP 1302: 1901, 1932(M). WSP 1432: 1928-30.

GAGE.--Water-stage recorder. Datum of gage is 308.84 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter periods, which are fair. Records of daily discharge do not include diversion at Rocky Rift Dam into Erie (Barge) Canal for lockages at lock 16, near St. Johnsville. Monthly and annual figures of diversion at Rocky Rift Dam are published separately below. During canal navigation season, water is received from Black River basin through Black River Canal flowing south, and from Chenango River basin through Oriskany Creek feeder. Water is diverted into (or may occasionally be received from) Oswego River basin through summit level of Erie (Barge) Canal between New London and Utica. Diurnal fluctuation caused by powerplants and locks and dams on Erie (Barge) Canal. Regulation by Delta and Hinckley Reservoirs (combined usable capacity, 6,120 mil ft<sup>3</sup>) (see Reservoirs in Hudson River Basin).

COOPERATION.--Figures of diversions at Rocky Rift Dam into Erie (Barge) Canal furnished by New York State Department of Transportation.

AVERAGE DISCHARGE.--56 years, 2,795 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (river channel only), 33,100 ft<sup>3</sup>/s Mar. 14, 1977, gage height, 19.17 ft, from high-water mark in gage house; minimum (river channel only), 214 ft<sup>3</sup>/s Aug. 18, 1949, gage height, 3.75 ft; minimum daily (including canal), probably not less than 463 ft<sup>3</sup>/s Sept. 2, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 16,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 16	0845	18,100	14.27	May 3	0800	*19,600	*14.81
Apr. 25	0915	17,100	13.89				

Minimum discharge recorded (river channel only), 578 ft<sup>3</sup>/s July 14, gage height, 4.61 ft; minimum daily (river channel only), 694 ft<sup>3</sup>/s Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	912	1130	3010	2440	1920	2140	2970	15900	3560	1380	1110	1260
2	944	1340	2630	2270	1870	2210	2730	18400	3400	1140	1390	992
3	783	1230	2390	2220	6150	2600	2870	18500	2870	1110	1140	892
4	694	1270	1790	2020	6800	2410	3320	17200	2540	1130	918	824
5	951	2540	1720	1900	4100	2910	3280	13000	2520	1190	886	824
6	925	2290	1650	2010	2800	3150	2970	9300	2280	1160	978	818
7	944	1740	1770	1980	2300	5400	2840	6430	3150	848	892	899
8	1150	1450	1610	1950	2100	5830	3530	5240	3600	771	830	783
9	1360	1210	1530	1860	1900	5430	3460	6470	2740	748	964	806
10	1100	1340	1480	1740	1800	4460	3470	6080	2190	848	944	824
11	794	1390	1720	2170	1800	5200	5450	5490	1990	848	912	938
12	985	1240	1570	3000	1900	5060	4770	4550	1560	783	1320	771
13	1090	1580	1310	2290	1800	3820	3960	3910	1540	765	1790	880
14	1090	1370	1350	1980	1800	3540	3140	2970	1450	743	1190	992
15	1170	1270	1330	1830	1900	3430	3350	3280	1450	754	978	715
16	1130	1350	1990	1790	1910	3180	14800	3280	1440	830	861	704
17	1040	1280	2970	1790	2030	2850	12100	3210	1480	938	842	842
18	824	992	2030	1630	2390	2700	12000	2800	1720	788	951	899
19	1100	873	1740	1500	2590	3070	9910	2550	1650	867	1150	886
20	1080	944	1660	1400	2470	3170	8170	3400	1450	1010	971	1070
21	1150	1110	1690	1500	2500	3200	6560	4080	1460	765	899	1200
22	1170	2670	1600	1700	2780	4520	6540	3240	1370	848	892	2010
23	1060	3570	1620	2500	2850	4010	8220	3280	1380	938	1080	1570
24	971	3340	1930	3100	2840	3180	11100	4260	1370	999	1010	1110
25	830	2550	3650	3560	2590	3010	16300	3320	1320	818	873	1010
26	1080	1930	6600	3040	2260	2540	15900	3210	1190	1010	899	951
27	1080	1750	4860	2500	1970	2510	14200	2870	1090	873	824	905
28	1140	1550	5890	2100	1980	2710	11200	2440	1370	938	855	899
29	1130	1700	6370	2020	---	4030	8630	2190	1360	899	812	912
30	992	4030	4820	1940	---	4080	9260	2080	1310	951	848	1060
31	1030	---	3150	1920	---	3210	---	2740	---	985	1310	---
TOTAL	31699	52029	79430	65650	72100	109560	217000	185670	57800	28675	31319	29246
MEAN	1023	1734	2562	2118	2575	3534	7233	5989	1927	925	1010	975
MAX	1360	4030	6600	3560	6800	5830	16300	18500	3600	1380	1790	2010
MIN	694	873	1310	1400	1800	2140	2730	2080	1090	743	812	704
#	16.2	3.8	0.2	0	0	0	0	12.6	16.7	26.3	19.5	17.3

CAL YR 1982 TOTAL 984110 MEAN 2696 MAX 18300 MIN 625 # 8.7  
WTR YR 1983 TOTAL 960178 MEAN 2631 MAX 18500 MIN 694 # 9.5

# Diversion, equivalent in cubic feet per second, at Rocky Rift Dam into Erie (Barge) Canal for lockages at Lock 16.

## HUDSON RIVER BASIN

57

01348000 EAST CANADA CREEK AT EAST CREEK, NY

LOCATION.--Lat 43°01'00", long 74°44'28", Herkimer County, Hydrologic Unit 0202004, on right bank at village of East Creek, 0.2 mi downstream from Niagara Mohawk Power Corp. Beardslee powerplant, 1.2 mi upstream from mouth, and 3.5 mi northwest of St. Johnsville.

DRAINAGE AREA.--291 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 335.70 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Extensive diurnal fluctuation and slight regulation caused by powerplants above station. City of Little Falls diverts about 5 ft<sup>3</sup>/s for municipal supply.

AVERAGE DISCHARGE.--37 years (1947-83), 681 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft<sup>3</sup>/s Mar. 14, 1977, gage height, 7.42 ft; minimum, 0.05 ft<sup>3</sup>/s July 9, 1978, gage height 0.47 ft; minimum gage height, 0.44 ft July 29, 1977; minimum daily, 0.22 ft<sup>3</sup>/s July 9, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1945, reached a stage of 9.0 ft, from floodmarks (discharge, 24,000 ft<sup>3</sup>/s, from slope-area measurement of peak flow).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,250 ft<sup>3</sup>/s April 25, gage height, 5.98 ft; minimum, 10 ft<sup>3</sup>/s Jan. 7, gage height, 0.91 ft; minimum daily, 12 ft<sup>3</sup>/s Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	258	166	822	813	468	745	414	5540	804	136	40	391
2	58	146	923	561	547	704	589	5480	933	74	258	217
3	60	289	753	506	1030	649	649	5890	761	40	163	143
4	237	386	712	353	2160	720	745	4730	696	45	225	107
5	170	611	386	380	1870	760	1020	3190	500	102	166	46
6	25	745	450	500	982	1000	895	1710	867	99	46	69
7	173	736	611	414	991	1800	533	1280	672	92	51	38
8	115	353	547	402	1050	1700	1150	1020	618	94	159	43
9	16	443	386	408	778	1800	1380	1600	611	40	194	74
10	53	198	328	437	431	1600	1240	1690	604	49	143	72
11	43	343	348	540	241	1800	2310	1580	487	43	163	42
12	136	420	49	656	318	1400	2020	962	16	40	426	194
13	139	456	380	456	348	1100	1620	596	266	48	664	245
14	143	318	97	462	397	800	933	688	146	39	133	249
15	146	391	187	375	596	700	982	649	82	69	163	156
16	173	289	474	343	62	660	3000	1010	318	48	225	156
17	51	380	867	391	328	700	3960	633	112	64	159	67
18	177	298	876	308	420	660	2340	736	184	62	76	65
19	233	233	568	275	493	720	1640	568	343	42	74	97
20	139	229	313	245	397	700	1360	895	202	46	72	133
21	369	14	323	166	275	1200	1270	972	245	45	12	136
22	397	796	456	202	343	1900	1030	952	241	78	67	736
23	143	1020	275	443	414	1600	1380	1050	191	42	221	745
24	152	1390	533	796	408	991	2140	596	118	39	194	298
25	78	1530	649	796	318	1080	5830	840	72	74	280	102
26	130	867	2090	704	474	672	5220	1020	74	152	225	241
27	143	688	2110	618	209	849	3480	618	102	104	35	241
28	143	626	1780	604	284	991	2340	170	152	80	46	191
29	133	753	2240	450	---	462	1780	554	146	43	166	133
30	133	886	1750	391	---	895	2140	554	159	127	136	65
31	112	---	895	568	---	456	---	736	---	46	493	---
TOTAL	4478	16000	23178	14563	16632	31814	55390	48509	10722	2102	5475	5492
MEAN	144	533	748	470	594	1026	1846	1565	357	67.8	177	183
MAX	397	1530	2240	813	2160	1900	5830	5890	933	152	664	745
MIN	16	14	49	166	62	456	414	170	16	39	12	38

CAL YR 1982 TOTAL 243164 MEAN 666 MAX 10000 MIN 12  
WTR YR 1983 TOTAL 234355 MEAN 642 MAX 5890 MIN 12

## HUDSON RIVER BASIN

01349000 OTSQUAGO CREEK AT FORT PLAIN, NY

LOCATION.--Lat 42°55'46", long 74°37'35", Montgomery County, Hydrologic Unit 02020004, on left bank 25 ft downstream from bridge on State Highway 163 in Fort Plain, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--59.2 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 302.16 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1973, at datum 1.00 ft higher.

REMARKS.--Records poor. Occasional diurnal fluctuation at low flow.

AVERAGE DISCHARGE.--34 years, 85.8 ft<sup>3</sup>/s, 19.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft<sup>3</sup>/s Oct. 28, 1981, gage height, 11.44 ft in gage well, 12.0 ft from floodmarks, from rating curve extended above 3,200 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow at gage height 11.44 ft in gage well, 12.0 ft from floodmarks; minimum, 0.6 ft<sup>3</sup>/s Nov. 30, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 16	0745	*3,030	*6.29	May 2	0345	2,800	6.08
Apr. 24	2230	2,820	6.10				

Minimum discharge, 2.1 ft<sup>3</sup>/s Oct. 21, 22; minimum gage height, 0.62 ft July 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	8.0	22	28	90	60	64	1050	56	11	7.7	17
2	3.3	7.8	17	23	110	130	61	1170	34	12	13	9.2
3	3.3	5.2	14	18	654	202	97	608	25	11	6.3	7.2
4	3.3	7.2	12	16	373	126	144	464	100	10	5.0	6.3
5	2.8	30	11	19	90	255	107	220	74	9.2	6.7	6.3
6	2.8	14	9.6	18	60	186	85	150	43	8.4	11	6.0
7	2.8	9.3	8.8	16	42	418	78	114	48	7.6	6.6	5.5
8	5.9	7.8	8.0	15	38	258	124	116	33	7.0	5.5	5.0
9	6.4	7.2	7.6	15	36	446	88	178	24	6.4	8.9	5.0
10	4.8	6.7	7.0	23	35	245	326	107	21	6.0	5.8	5.0
11	3.6	6.4	6.6	50	33	370	341	87	18	5.6	7.5	5.2
12	3.6	6.7	6.4	60	32	248	150	73	16	5.4	42	5.0
13	4.2	8.6	6.2	32	31	170	107	62	14	5.2	25	4.8
14	4.2	8.0	6.0	25	30	150	85	54	13	4.9	11	4.5
15	4.2	7.5	6.0	20	30	140	81	50	12	4.7	7.5	4.5
16	4.8	6.7	15	18	30	129	1460	51	16	5.0	6.3	4.3
17	4.8	6.7	35	17	35	122	478	42	83	4.8	5.8	4.5
18	4.2	6.4	22	16	70	119	241	36	235	4.3	22	4.8
19	6.4	5.7	20	15	120	235	159	32	83	4.5	20	4.8
20	5.2	5.7	19	14	130	261	244	50	36	4.5	11	4.5
21	3.6	7.5	17	14	130	223	356	51	26	4.8	7.5	8.9
22	3.6	11	16	15	230	277	848	38	21	5.5	7.2	24
23	4.2	24	15	25	223	114	921	56	17	4.5	8.5	8.9
24	4.2	19	17	60	110	86	1300	45	15	5.8	6.6	6.6
25	4.8	15	50	130	80	69	1730	34	13	5.8	5.8	5.8
26	4.2	12	182	110	60	56	597	28	12	4.8	5.5	5.5
27	4.2	10	62	100	42	50	268	27	12	4.3	5.2	5.2
28	4.2	10	120	100	47	69	181	23	23	3.9	5.0	5.2
29	3.8	13	117	130	---	127	138	23	22	3.9	4.8	4.9
30	4.6	35	50	120	---	78	722	28	14	6.1	6.2	4.7
31	4.0	---	35	100	---	65	---	38	---	4.9	37	---
TOTAL	129.6	328.1	940.2	1362	2991	5484	11581	5105	1159	191.8	333.9	199.1
MEAN	4.18	10.9	30.3	43.9	107	177	386	165	38.6	6.19	10.8	6.64
MAX	6.4	35	182	130	654	446	1730	1170	235	12	42	24
MIN	2.8	5.2	6.0	14	30	50	61	23	12	3.9	4.8	4.3
CFSM	.07	.18	.51	.74	1.81	2.99	6.52	2.79	.65	.11	.18	.11
IN.	.08	.21	.59	.86	1.88	3.45	7.28	3.21	.73	.12	.21	.13

CAL YR 1982	TOTAL	33647.2	MEAN	92.2	MAX	1830	MIN	2.0	CFSM	1.56	IN	21.14
WTR YR 1983	TOTAL	29804.7	MEAN	81.7	MAX	1730	MIN	2.8	CFSM	1.38	IN	18.73



## 01350000 SCHOHARIE CREEK AT PRATTSVILLE, NY

LOCATION.--Lat 42°19'15", long 74°26'10", Greene County, Hydrologic Unit 02020005, on left bank 100 ft upstream from bridge on State Highway 23 in Prattsville, 0.2 mi upstream from Schoharie Reservoir, 0.2 mi downstream from Huntersfield, and 1.6 mi downstream from Batavia Kill.

DRAINAGE AREA.--236 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1902 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 351: Drainage area. WSP 1432: 1937-38.

GAGE.--Water-stage recorder. Datum of gage is 1,134.98 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1915, nonrecording gage, and Oct. 1, 1915 to July 17, 1936, water-stage recorder, at old highway bridge 80 ft upstream, and July 18, 1936 to July 15, 1954, water-stage recorder at site 0.2 mi downstream, all at datum 1.56 ft lower than present datum.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--80 years, 462 ft<sup>3</sup>/s, 26.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft<sup>3</sup>/s Oct. 16, 1955, gage height, 19.14 ft, from rating curve extended above 16,000 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; maximum gage height, 19.57 ft Mar. 5, 1979 (ice jam); minimum daily discharge, 4.8 ft<sup>3</sup>/s Sept. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 23	2330	ice jam	*9.81	Apr. 16	1345	6,900	7.81
Feb. 2	1115	7,890	8.24	Apr. 24	2030	9,070	8.72
Mar. 19	1315	*10,400	9.21	Apr. 28	2145	4,820	6.78
Mar. 21	1915	7,910	8.25				

Minimum discharge, 7.9 ft<sup>3</sup>/s Sept. 21, gage height, 1.55 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	15	206	190	287	243	539	2190	581	113	20	26
2	20	15	188	180	279	709	499	2240	460	96	25	23
3	17	14	178	160	4500	815	765	1640	383	84	24	20
4	15	17	172	150	2430	581	959	1500	516	73	20	18
5	14	388	162	160	1220	504	829	1160	471	82	19	17
6	14	287	159	170	859	522	696	935	388	119	18	15
7	13	172	153	150	709	1380	696	779	499	91	17	15
8	13	130	138	130	618	1420	1120	723	388	71	15	14
9	14	103	127	120	500	1800	1280	920	313	61	15	14
10	17	87	113	140	400	1430	1820	730	275	55	14	13
11	14	76	110	967	340	1360	2740	624	247	48	15	13
12	14	67	120	644	300	1190	1530	557	216	44	30	13
13	14	266	110	370	280	951	1130	493	192	41	96	15
14	20	322	110	300	270	829	920	439	175	38	65	14
15	22	227	153	260	270	874	829	444	168	34	41	11
16	25	172	460	230	280	882	3800	593	195	33	31	10
17	23	144	650	210	290	889	2750	482	185	33	26	10
18	20	127	373	190	290	959	2060	408	150	30	31	10
19	19	116	317	180	320	8010	1690	364	130	27	48	9.3
20	17	106	262	170	400	4530	1450	393	116	26	38	9.3
21	18	98	235	170	1300	4280	1210	423	103	26	27	11
22	17	103	206	170	716	3640	1190	368	94	29	23	182
23	15	216	192	600	455	1890	1590	466	84	27	22	111
24	15	239	195	1320	378	1310	4490	466	78	26	19	59
25	15	202	239	800	291	1010	7720	373	71	26	15	41
26	14	182	336	575	240	808	4390	336	61	25	15	33
27	14	172	287	450	220	716	3640	644	57	22	19	27
28	14	147	266	370	243	1080	4160	631	243	21	17	25
29	14	209	271	350	---	943	3750	488	326	19	21	21
30	14	231	243	330	---	689	3280	569	162	15	39	20
31	13	---	213	317	---	599	---	612	---	17	29	---
TOTAL	510	4650	6944	10523	18685	46843	63522	22990	7327	1452	854	819.6
MEAN	16.5	155	224	339	667	1511	2117	742	244	46.8	27.5	27.3
MAX	25	388	650	1320	4500	8010	7720	2240	581	119	96	182
MIN	13	14	110	120	220	243	499	336	57	15	14	9.3
CFSM	.07	.66	.95	1.44	2.83	6.40	8.97	3.14	1.03	.20	.12	.12
IN.	.08	.73	1.09	1.66	2.95	7.38	10.01	3.62	1.15	.23	.13	.13
CAL YR 1982	TOTAL	130378.6	MEAN	357	MAX	6930	MIN	9.3	CFSM	1.51	IN	20.55
WTR YR 1983	TOTAL	185119.6	MEAN	507	MAX	8010	MIN	9.3	CFSM	2.15	IN	29.18

## HUDSON RIVER BASIN

01350100 SCHOHARIE RESERVOIR NEAR GRAND GORGE, NY

LOCATION.--Lat 42°21'21", long 74°26'42", Schoharie County, Hydrologic Unit 02020005, in Shandaken Tunnel intake house on Intake Road, 1.6 mi north of junction of Intake Road and State Highway 23, 2.5 mi upstream from Gilboa Dam, and 2.6 mi east of Grand Gorge.

DRAINAGE AREA.--314 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1973 to current year. Monthly contents only published as "at Gilboa" for September 1928 to December 1972.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

REMARKS.--Reservoir is formed by masonry and earth dam. Storage began July 24, 1926. Usable capacity 19,583 mil gal between minimum operating level, elevation, 1,050.00 ft, and crest of spillway, elevation, 1,130.00 ft. Dead storage below elevation 1,050.00, 1,968 mil gal. Figures given herein represent usable contents. Reservoir impounds water except for periods of spilling, for diversion through Shandaken Tunnel into Esopus Creek to Ashokan Reservoir, for New York City water supply.

COOPERATION.--Capacity table furnished by Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 1,135.17 ft Oct. 16, 1955, contents, 23,566 mil gal; minimum observed (after initial filling), 1,062.00 ft Aug. 20, 1970, contents, 1,520 mil gal.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,132.17 ft Apr. 25, contents, 20,426 mil gal; minimum observed, 1,078.69 ft Nov. 4, contents, 4,678 mil gal.

Capacity table (elevation, in feet, and usable contents in million gallons).

1,063.0	1,672	1,120.0	16,100
1,080.0	4,969	1,133.0	20,700

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1093.01	1079.79	1082.18	1088.41	1088.07	1093.37	1130.38	1131.04	1130.56	1129.06	1115.76	1100.98
2	1092.56	1079.45	1082.35	1088.49	1088.13	1092.67	1130.38	1131.09	1130.50	1128.94	1115.38	1100.53
3	1092.10	1079.11	1082.48	1088.55	1092.33	1093.49	1130.49	1130.93	1130.41	1128.78	1114.92	1100.07
4	1091.64	1078.79	1082.58	1088.52	1103.77	1093.69	1130.68	1130.91	1130.28	1128.58	1114.48	1099.62
5	1091.17	1079.03	1082.64	1088.33	1107.03	1093.49	1130.64	1130.77	1130.30	1128.36	1114.04	1099.18
6	1090.72	1079.88	1082.70	1088.31	1108.42	1093.24	1130.56	1130.66	1130.24	1128.13	1113.59	1098.74
7	1090.27	1080.13	1082.72	1088.28	1109.38	1093.88	1130.56	1130.58	1130.42	1127.74	1113.14	1098.30
8	1089.82	1080.15	1082.70	1088.19	1110.03	1096.52	1130.67	1130.58	1130.47	1127.28	1112.70	1097.84
9	1089.40	1080.07	1082.65	1088.00	1110.35	1099.53	1130.80	1130.68	1130.40	1126.79	1112.25	1097.37
10	1088.97	1079.92	1082.47	1087.81	1110.22	1102.03	1130.76	1130.64	1130.36	1126.28	1111.79	1096.92
11	1088.54	1079.74	1082.35	1088.53	1109.53	1104.31	1131.08	1130.57	1130.28	1125.75	1111.35	1096.49
12	1088.11	1079.55	1082.23	1090.09	1108.73	1106.28	1130.75	1130.52	1130.22	1125.23	1110.94	1096.03
13	1087.70	1079.62	1082.02	1090.34	1107.86	1107.56	1130.62	1130.47	1130.19	1124.72	1110.25	1095.57
14	1087.33	1080.29	1081.77	1089.86	1107.06	1108.33	1130.52	1130.45	1130.17	1124.17	1109.53	1095.10
15	1086.95	1080.69	1081.65	1089.37	1106.21	1109.06	1130.51	1130.43	1130.18	1123.63	1108.78	1094.57
16	1086.58	1080.85	1081.77	1088.79	1105.32	1109.84	1131.11	1130.55	1130.08	1123.11	1108.26	1093.98
17	1086.20	1080.88	1083.47	1088.17	1104.40	1110.64	1131.08	1130.47	1130.06	1122.55	1107.80	1092.66
18	1085.82	1080.85	1084.46	1087.48	1103.54	1111.47	1130.91	1130.42	1130.04	1121.99	1107.36	1091.22
19	1085.44	1080.79	1084.95	1086.67	1102.66	1120.71	1130.85	1130.39	1129.97	1121.46	1106.95	1089.94
20	1085.06	1080.69	1085.36	1085.82	1101.69	1131.30	1130.79	1130.41	1129.85	1121.01	1106.52	1089.26
21	1084.68	1080.58	1085.63	1085.06	1100.72	1131.24	1130.72	1130.45	1129.68	1120.58	1106.05	1088.68
22	1084.19	1080.47	1085.79	1084.40	1099.85	1131.25	1130.67	1130.42	1129.48	1120.14	1105.56	1088.39
23	1083.71	1080.57	1085.90	1083.90	1099.12	1130.79	1130.79	1130.47	1129.26	1119.71	1105.10	1088.23
24	1083.23	1080.93	1085.99	1085.95	1098.42	1130.59	1131.26	1130.51	1129.04	1119.27	1104.60	1087.83
25	1082.76	1081.18	1086.17	1088.05	1097.58	1130.48	1132.01	1130.45	1128.77	1118.84	1104.11	1087.36
26	1082.32	1081.34	1086.59	1088.86	1096.63	1130.42	1131.43	1130.41	1128.47	1118.40	1103.63	1086.85
27	1081.86	1081.45	1087.12	1089.11	1095.49	1130.38	1131.26	1130.53	1128.20	1117.95	1103.15	1086.35
28	1081.42	1081.47	1087.49	1089.12	1094.44	1130.47	1131.34	1130.60	1128.21	1117.50	1102.67	1085.85
29	1080.98	1081.61	1087.83	1088.87	---	1130.50	1131.39	1130.51	1128.97	1117.06	1102.22	1085.33
30	1080.58	1081.92	1088.13	1088.65	---	1130.43	1131.28	1130.52	1129.13	1116.63	1101.83	1084.82
31	1080.17	---	1088.29	1088.40	---	1130.40	---	1130.57	---	1116.18	1101.40	---
MEAN	1086.56	1080.39	1084.21	1088.01	1102.39	1113.17	1130.88	1130.58	1129.81	1123.09	1108.58	1093.14
MAX	1093.01	1081.92	1088.29	1090.34	1110.35	1131.30	1132.01	1131.09	1130.56	1129.06	1115.76	1100.98
MIN	1080.17	1078.79	1081.65	1083.90	1088.07	1092.67	1130.38	1130.39	1128.20	1116.18	1101.40	1084.82
*	4,963	5,461	6,994	6,967	8,428	19,734	20,022	19,796	19,271	14,799	10,417	6,055
**	-164	+25.7	+76.5	-1.35	+80.7	+564	+14.9	-11.3	-27.1	-223	-219	-225
CAL YR 1982	MEAN	1108.62	MAX	1131.37	MIN	1078.52	**	-6.71				
WTR YR 1983	MEAN	1105.90	MAX	1132.01	MIN	1078.79	**	-9.30				

\* Contents, in million gallons, at 2400 hours on last day of month.

\*\* Change in contents, equivalent in cubic feet per second.

Note.--Elevations for Jan. 31 to Feb. 3 are based on readings furnished by Department of Environmental Protection, City of New York.

## HUDSON RIVER BASIN

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## 01350101 SCHOHARIE CREEK AT GILBOA, NY

LOCATION.--Lat 42°23'50", long 74°27'03", Schoharie County, Hydrologic Unit 02020005, on left bank, 200 ft upstream from bridge on County Highway 322, 0.2 mi west of village of Gilboa, 0.4 mi downstream from dam on Schoharie Reservoir, and 0.8 mi upstream from the Platter Kill.

DRAINAGE AREA.--314 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 939.56 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except those under 20 ft<sup>3</sup>/s, which are poor. Entire flow, runoff from 314 mi<sup>2</sup>, except for periods of spill, Mar. 19 to June 18, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of city of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,500 ft<sup>3</sup>/s Mar. 21, 1980 determined by flow over dam computations at Schoharie Reservoir dam, gage height, 28.6 ft from floodmarks; minimum daily, 0.04 ft<sup>3</sup>/s on many days, June to October 1976, and Sept. 11-13, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 32,000 ft<sup>3</sup>/s Mar. 18, 1936, from information furnished by Bureau of Water Resources Development, City of New York.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,900 ft<sup>3</sup>/s Apr. 25, gage height, 18.17 ft; minimum daily, 0.06 ft<sup>3</sup>/s Oct. 7, 29-31, Dec. 13-14, but may have been less during periods of ice effect Jan. 6-23 and Feb. 7-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.15	.24	.22	.24	.36	657	3010	699	.90	.69	.38
2	.13	.15	.22	.20	.24	.45	586	3170	557	1.1	.69	.31
3	.10	.15	.20	.18	2.3	.59	779	3210	393	.90	.41	.28
4	.10	.69	.20	.15	1.5	.54	1120	2080	223	.90	.38	.28
5	.10	1.0	.18	.15	.74	.50	974	1560	250	.85	.38	.22
6	.10	.41	.20	.15	.64	.50	816	1250	184	.74	.38	.22
7	.06	.26	.18	.14	.62	.90	816	1020	427	.69	.38	.22
8	.10	.20	.15	.13	.60	.90	1240	904	474	.69	.33	.22
9	.18	.15	.15	.13	.60	1.2	1520	1170	390	.64	.33	.22
10	.18	.13	.10	.12	.60	1.1	2360	944	316	.64	.33	.22
11	.15	.10	.10	.12	.56	1.5	3410	800	186	.54	.64	.22
12	.13	.10	.10	.12	.56	1.5	1910	714	134	.54	.90	.24
13	.13	.59	.06	.11	.54	1.3	1410	625	103	.54	.54	.24
14	.18	.41	.06	.11	.52	1.3	1160	552	84	.50	.33	.24
15	.18	.31	.10	.11	.50	1.5	998	532	78	.41	.33	.24
16	.18	.24	.38	.10	.50	1.5	4560	774	18	.50	.31	.28
17	.15	.18	.54	.10	.50	1.4	3620	621	12	.41	.31	.31
18	.13	.13	.33	.10	.48	1.2	2680	512	3.3	.41	.64	.31
19	.10	.13	.26	.10	.45	2.0	2280	470	1.1	.41	.50	.33
20	.10	.13	.22	.09	.45	5600	1940	474	.85	.41	.33	.33
21	.10	.13	.20	.09	.50	5290	1590	520	.74	.54	.31	.50
22	.10	.18	.18	.09	.79	5500	1510	474	.69	.69	.28	1.3
23	.10	.33	.15	.70	.79	2430	2100	528	.69	.54	.31	.50
24	.10	.33	.15	1.7	.69	1380	5560	569	.64	.64	.31	.28
25	.10	.31	.26	1.2	.54	962	10000	485	.64	.64	.28	.24
26	.10	.28	.36	.74	.45	704	6220	417	.54	.54	.31	.22
27	.10	.26	.36	.50	.38	586	4970	630	.64	.50	.31	.18
28	.10	.22	.31	.36	.36	956	5670	784	2.0	.41	.31	.18
29	.06	.26	.33	.31	---	1060	5180	603	1.6	.41	.33	.18
30	.06	.26	.31	.26	---	848	4520	621	1.1	.41	.41	.18
31	.06	---	.26	.26	---	734	---	719	---	.41	.38	---
TOTAL	3.61	8.17	6.84	3.84	17.64	26070.24	82156	30742	4542.53	18.45	12.67	9.07
MEAN	.12	.27	.22	.29	.63	841	2739	992	151	.60	.41	.30
MAX	.18	1.0	.54	1.7	2.3	5600	10000	3210	699	1.1	.90	1.3
MIN	.06	.10	.06	.09	.24	.36	586	417	.54	.41	.28	.18
CAL YR 1982	TOTAL	72657.79	MEAN 199	MAX 7370	MIN .06							
WTR YR 1983	TOTAL	143596.06	MEAN 393	MAX 10000	MIN .06							

## HUDSON RIVER BASIN

01350120 PLATTER KILL AT GILBOA, NY

LOCATION.--Lat 42°24'18", long 74°26'36", Schoharie County, Hydrologic Unit 02020005, on right bank, 190 ft upstream from culvert on County Highway 17, 0.5 mi upstream from mouth, and 0.6 mi northeast of Gilboa.

DRAINAGE AREA.--11.1 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1975 to current year. Occasional discharge measurements, water years 1969-73.

GAGE.--Water-stage recorder. Concrete control since Nov. 12, 1976. Altitude of gage is 1,110 ft, from topographic map.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--8 years, 16.2 ft<sup>3</sup>/s, 19.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 690 ft<sup>3</sup>/s Oct. 17, 1977, gage height, 4.54 ft; maximum gage height, 4.84 ft Feb. 12, 1982 (ice jam); minimum discharge, 0.32 ft<sup>3</sup>/s Nov. 18, 1980 (result of freezeup); minimum gage height (subsequent to concrete control installation), 0.76 ft Nov. 18, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 21	2015	153	2.94	Apr. 25	1045	*306	*3.61

Minimum discharge, 1.0 ft<sup>3</sup>/s Dec. 13, 14, gage height 0.83 ft, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.6	2.3	2.2	5.5	8.8	20	79	11	7.3	2.7	1.7
2	1.5	1.5	2.0	2.2	5.8	12	17	96	9.8	9.1	2.5	1.5
3	1.5	1.5	1.9	2.2	23	14	24	72	8.5	7.6	2.2	1.5
4	1.4	2.4	1.8	2.3	25	14	25	71	11	6.5	2.1	1.5
5	1.4	6.2	1.8	3.2	18	14	22	60	9.5	6.0	2.1	1.5
6	1.4	2.3	2.0	2.7	14	16	20	50	8.5	5.5	2.0	1.6
7	1.4	1.9	2.0	2.4	12	31	20	42	8.8	5.1	2.0	1.5
8	1.5	1.8	1.8	2.3	11	32	26	39	8.2	4.9	1.9	1.3
9	1.5	1.7	1.7	2.3	10	34	24	45	6.7	4.5	1.7	1.3
10	1.5	1.5	1.6	2.5	9.6	34	39	36	6.7	4.3	1.7	1.5
11	1.4	1.5	1.6	3.3	9.2	38	53	31	6.5	4.1	2.3	1.4
12	1.5	1.5	1.5	2.7	9.0	37	39	29	5.8	3.9	2.9	1.4
13	1.6	4.1	1.4	2.2	8.6	35	33	25	5.5	3.6	2.2	1.4
14	1.7	2.3	1.5	2.1	8.4	34	29	23	5.1	3.6	1.8	1.3
15	1.5	2.0	2.0	2.0	8.4	34	27	27	4.9	3.4	1.7	1.3
16	1.5	1.7	5.3	1.9	8.2	33	63	31	4.9	3.4	1.7	1.3
17	1.5	1.7	3.5	1.9	8.2	36	63	25	5.1	3.2	1.6	1.4
18	1.5	1.6	3.0	1.8	8.5	39	57	20	6.7	3.2	3.0	1.3
19	1.5	1.7	2.2	1.8	8.2	95	50	17	6.7	3.1	2.4	1.3
20	1.5	1.6	2.0	1.8	7.9	107	48	17	5.5	2.9	2.2	1.5
21	1.5	1.7	1.9	1.7	8.5	112	45	19	4.9	3.4	2.1	2.4
22	1.5	2.0	2.0	1.7	9.1	110	49	16	4.3	3.2	2.0	3.1
23	1.5	3.4	2.1	15	10	68	64	16	3.9	2.8	1.9	1.6
24	1.4	2.5	2.7	22	10	51	140	16	3.8	3.0	1.7	1.5
25	1.5	2.2	3.3	14	9.5	41	278	13	3.5	2.8	1.7	1.4
26	1.5	2.1	3.6	9.0	8.8	33	187	13	3.5	2.7	1.7	1.4
27	1.4	2.0	2.9	7.0	8.5	30	153	13	3.8	2.5	1.6	1.4
28	1.5	2.4	2.8	6.4	8.5	33	151	13	17	2.3	1.6	1.4
29	1.4	3.3	2.6	6.2	---	31	117	12	16	2.3	1.7	1.3
30	1.4	2.6	2.4	6.0	---	25	120	12	9.1	2.4	1.6	1.4
31	1.5	---	2.3	5.8	---	22	---	12	---	2.3	1.8	---
TOTAL	45.9	66.3	71.5	140.6	291.4	1253.8	2003	990	215.2	124.9	62.1	45.4
MEAN	1.48	2.21	2.31	4.54	10.4	40.4	66.8	31.9	7.17	4.03	2.00	1.51
MAX	1.7	6.2	5.3	22	25	112	278	96	17	9.1	3.0	3.1
MIN	1.4	1.5	1.4	1.7	5.5	8.8	17	12	3.5	2.3	1.6	1.3
CFSM	.13	.20	.21	.41	.94	3.64	6.02	2.87	.65	.36	.18	.14
IN.	.15	.22	.24	.47	.98	4.20	6.71	3.32	.72	.42	.21	.15

CAL YR 1982	TOTAL	3964.60	MEAN	10.9	MAX	63	MIN	.90	CFSM	.98	IN	13.29
WTR YR 1983	TOTAL	5310.10	MEAN	14.5	MAX	278	MIN	1.3	CFSM	1.31	IN	17.79



## HUDSON RIVER BASIN

63

01350140 MINE KILL NEAR NORTH BLENHEIM, NY

LOCATION.--Lat 42°25'44", long 74°28'24", Schoharie County, Hydrologic Unit 02020005, on left bank 200 ft upstream from bridge on State Highway 30, 0.6 mi upstream from mouth, and 3.0 mi (4.8 km) southwest of North Blenheim.

DRAINAGE AREA.--16.3 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1974 to current year. Occasional discharge measurements, water years 1969-74.

GAGE.--Water-stage recorder. Concrete control since Sept. 23, 1975. Altitude of gage is 1,060 ft, from topographic map.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--8 years (1976-83), 26.1 ft<sup>3</sup>/s, 21.74 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft<sup>3</sup>/s Mar. 14, 1977, gage height, 3.41 ft; maximum gage height, 3.60 ft Feb. 2, 1981 (ice jam); minimum discharge, 0.10 ft<sup>3</sup>/s Aug. 27-30, 1980, gage height, 0.49 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 576 ft<sup>3</sup>/s Apr. 24, gage height, 2.95 ft, only peak above base of 550 ft<sup>3</sup>/s; minimum discharge, 0.15 ft<sup>3</sup>/s Oct. 5, 6-8, 9, gage height, 0.60 ft; minimum gage height, 0.54 ft Sept. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.19	6.3	3.5	4.1	15	29	109	33	14	.89	1.6
2	.25	.38	4.5	3.3	6.0	23	26	181	28	17	2.4	.99
3	.19	.38	3.1	3.2	147	26	40	109	23	14	1.8	.70
4	.19	.88	2.3	4.5	78	22	45	115	33	12	1.2	.53
5	.15	12	1.9	10	48	23	36	76	26	10	1.1	.46
6	.15	4.5	1.4	8.0	45	25	31	58	27	10	.89	.40
7	.15	2.2	1.3	4.9	40	59	34	47	41	8.7	.80	.30
8	.15	1.6	1.2	3.3	35	53	48	47	24	7.4	.70	.25
9	.31	1.3	1.1	3.0	31	65	40	53	20	6.3	.53	.20
10	.55	1.0	1.0	4.0	27	60	104	38	18	5.7	.40	.25
11	.38	.88	1.0	10	24	65	107	34	16	3.5	2.1	.25
12	.31	.88	1.0	7.0	22	62	69	33	18	3.3	3.5	.25
13	.31	12	1.0	5.0	20	51	55	30	18	3.3	2.8	.20
14	.88	6.3	1.0	3.8	19	49	48	26	13	2.8	1.6	.20
15	.88	3.7	2.0	3.4	18	55	43	43	12	2.4	.99	.20
16	.88	2.5	22	3.1	18	59	184	50	11	2.4	.80	.20
17	.88	2.2	20	2.9	17	65	134	34	10	1.9	.70	.20
18	.75	1.8	11	2.8	17	62	109	29	10	1.4	1.9	.20
19	.46	1.8	7.0	2.7	16	202	87	26	21	1.4	1.6	.20
20	.38	1.6	4.5	2.5	15	134	80	25	12	1.2	.99	.46
21	.38	1.2	3.5	2.4	15	173	76	30	9.6	1.2	.80	1.1
22	.31	1.3	3.2	2.4	19	147	87	25	8.2	1.8	.61	5.2
23	.31	7.6	3.1	6.0	18	80	143	28	7.0	1.5	.70	1.5
24	.25	5.6	4.5	40	16	60	265	37	5.7	1.5	.61	.89
25	.25	5.6	15	23	15	51	351	26	4.7	1.8	.46	.61
26	.25	5.0	19	12	14	45	214	33	3.5	1.6	.40	.53
27	.25	3.7	13	7.8	14	31	172	57	3.3	1.2	.35	.46
28	.25	2.0	9.0	5.6	14	40	159	40	87	.89	.30	.46
29	.19	9.6	6.2	4.7	---	40	121	33	43	.89	.30	.46
30	.19	8.9	4.5	4.3	---	38	181	33	19	.89	1.1	.46
31	.19	---	3.9	4.2	---	32	---	34	---	.89	.89	---
TOTAL	11.27	108.59	179.5	203.3	772.1	1912	3118	1539	605.0	142.86	34.21	19.71
MEAN	.36	3.62	5.79	6.56	27.6	61.7	104	49.6	20.2	4.61	1.10	.66
MAX	.88	12	22	40	147	202	351	181	87	17	3.5	5.2
MIN	.15	.19	1.0	2.4	4.1	15	26	25	3.3	.89	.30	.20
CFSM	.02	.22	.36	.40	1.69	3.79	6.38	3.04	1.24	.28	.07	.04
IN.	.03	.25	.41	.46	1.76	4.36	7.12	3.51	1.38	.33	.08	.04

CAL YR 1982 TOTAL 6809.35 MEAN 18.7 MAX 170 MIN .12 CFSM 1.15 IN 15.54  
WTR YR 1983 TOTAL 8645.54 MEAN 23.7 MAX 351 MIN .15 CFSM 1.45 IN 19.73

## HUDSON RIVER BASIN

01350180 SCHOHARIE CREEK AT NORTH BLENHEIM, NY

LOCATION.--Lat 42°27'57", long 74°27'45", Schoharie County, Hydrologic Unit 02020005, on left bank 2300 ft upstream from West Kill, and 1.2 mi upstream from bridge on State Highway 30 in North Blenheim. Water-quality sampling site at discharge station.

DRAINAGE AREA.--359 mi<sup>3</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year. Occasional measurements, water years 1969-70.

GAGE.--Water-stage recorder. Altitude of gage is 800 ft, from topographic map. Prior to Oct. 1, 1971, at datum 1.00 ft higher.

REMARKS.--Records fair except those during winter periods and those below 20 ft<sup>3</sup>/s, which are poor. Regulation of flow by Blenheim-Gilboa Pumped Storage Project immediately upstream from gage. Entire flow, runoff from 314 mi<sup>2</sup>, except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York. For periods of spill see station 01350101.

AVERAGE DISCHARGE.--13 years, 486 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,900 ft<sup>3</sup>/s Mar. 21, 1980, gage height, 14.72 ft from floodmark, from rating curve extended above 14,000 ft<sup>3</sup>/s; minimum, no flow Oct. 21-28, 1972, Sept. 12-14, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,200 ft<sup>3</sup>/s Apr. 25, gage height, 11.00 ft; minimum, 3.4 ft<sup>3</sup>/s Oct. 3, 11, gage height, 0.99 ft; minimum gage height, 0.94 ft Sept. 23; minimum daily discharge, 3.8 ft<sup>3</sup>/s Oct. 2-3, 6-8, 15-16, 19-21, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.4	5.1	4.7	23	34	823	2910	730	8.5	8.2	7.8
2	3.8	4.0	4.9	4.4	49	73	667	3590	587	9.7	8.5	7.8
3	3.8	4.0	4.9	5.1	282	68	851	2500	519	10	7.8	7.8
4	4.2	4.9	4.9	4.9	142	57	1310	2310	255	24	7.8	7.8
5	4.2	5.4	5.1	4.7	57	60	1070	1690	308	45	7.8	7.5
6	3.8	4.4	5.4	4.7	49	60	995	1420	200	25	8.2	8.2
7	3.8	4.4	4.9	8.2	44	138	970	1100	442	7.8	7.8	7.5
8	3.8	4.7	4.7	5.1	40	127	1210	1030	530	7.8	7.8	11
9	4.2	4.4	4.7	4.7	38	189	1710	1380	423	7.8	7.5	7.8
10	4.0	4.2	4.7	4.7	35	111	2230	1050	336	7.1	7.8	7.8
11	4.0	4.2	4.9	4.9	33	194	3860	868	252	7.8	9.3	7.5
12	4.0	4.4	4.7	4.7	32	168	2200	741	161	7.1	9.3	7.8
13	4.0	5.7	4.9	4.7	31	156	1600	795	103	7.1	8.5	7.1
14	4.0	4.4	4.4	4.7	30	119	1290	552	165	7.5	7.8	7.1
15	3.8	4.4	4.4	4.6	29	115	1120	736	109	7.8	8.5	7.1
16	3.8	4.0	5.9	4.6	29	163	4380	940	51	7.8	7.8	7.1
17	4.0	4.2	5.4	4.6	30	158	4010	648	19	7.5	7.5	5.1
18	4.0	4.2	4.9	4.6	35	149	2920	654	19	7.5	8.2	4.4
19	3.8	4.4	4.9	4.6	35	482	2530	524	40	7.8	7.8	5.1
20	3.8	4.4	4.4	4.6	33	5580	2210	611	95	7.8	7.8	5.1
21	3.8	4.4	4.4	5.0	35	5470	1790	593	8.5	8.5	7.8	5.1
22	4.0	5.1	4.4	6.0	41	6080	1760	524	8.2	7.5	7.8	4.9
23	4.0	5.1	4.7	10	52	2580	2360	617	8.2	8.2	7.5	4.2
24	4.2	4.7	4.9	17	38	1570	5600	700	6.8	7.8	7.5	4.4
25	4.4	4.4	4.9	9.3	27	1090	10600	541	6.2	7.5	7.8	4.7
26	4.0	4.7	5.4	6.5	20	823	7200	472	7.5	7.5	7.8	4.9
27	4.2	4.7	4.9	5.9	15	762	5760	648	7.8	7.5	8.2	4.2
28	4.4	4.7	5.1	5.9	9.7	1150	5760	874	14	7.5	7.5	4.2
29	4.0	5.1	4.9	7.0	---	1040	5360	687	84	7.5	7.5	4.2
30	3.8	4.9	4.7	8.9	---	989	4810	642	12	6.8	7.5	4.2
31	4.2	---	4.9	12	---	880	---	811	---	6.5	7.5	---
TOTAL	124.0	36.9	151.3	191.3	1313.7	30635	88956	33158	5507.2	311.2	246.1	189.4
MEAN	4.00	4.56	4.88	6.17	46.9	988	2965	1070	184	10.0	7.94	6.31
MAX	4.4	5.7	5.9	17	282	6080	10600	3590	730	45	9.3	11
MIN	3.8	4.0	4.4	4.4	9.7	34	667	472	6.2	6.5	7.5	4.2
CAL YR 1982	TOTAL	84750.1	MEAN	232	MAX	7180	MIN	3.8				
WTR YR 1983	TOTAL	160920.1	MEAN	441	MAX	10600	MIN	3.8				

## HUDSON RIVER BASIN

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01350180 SCHOHARIE CREEK AT NORTH BLENHEIM, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

CHEMICAL DATA: 1971-72 (a), 1975-76 (d).

NUTRIENT DATA: 1971 (a), 1975-76 (d).

BIOLOGICAL DATA:

Bacteria--1975-76 (d).

SEDIMENT DATA: 1975-76 (a).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1971 to current year.

REMARKS.--No record Oct. 1-7 and Nov. 30-Dec. 1, 1982, due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1973-76, 80-81, 83), 33.5°C Aug. 7, 1973; minimum, freezing point on many days during winter periods, except water years 1978-80, 83.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 30.0°C Aug. 8; minimum, 0.5°C on many days during Dec. to Feb.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

## HUDSON RIVER BASIN

01350180 SCHOHARIE CREEK AT NORTH BLENHEIM, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	1.0	1.5	5.0	2.5	4.0	4.0	3.5	3.5	8.5	7.5	8.0
2	1.5	1.0	1.5	4.5	3.5	3.5	4.5	3.5	4.0	9.5	8.5	9.0
3	2.0	1.5	1.5	5.5	3.0	4.0	4.0	4.0	4.0	10.0	9.5	9.5
4	2.5	.5	2.0	4.5	2.5	3.5	4.0	4.0	4.0	10.0	10.0	10.0
5	2.0	.5	1.0	5.5	3.0	4.0	4.0	4.0	4.0	10.0	9.5	10.0
6	2.0	.5	1.0	6.0	2.5	4.0	4.5	4.0	4.5	10.0	9.5	10.0
7	1.5	.5	1.0	4.0	3.5	4.0	5.0	4.5	4.5	11.0	10.0	10.5
8	2.0	1.0	1.5	4.0	3.5	3.5	5.0	5.0	5.0	11.0	10.5	10.5
9	2.0	.5	1.0	4.0	3.5	4.0	5.5	5.0	5.0	10.5	10.0	10.5
10	1.5	.5	1.0	4.0	3.5	4.0	5.0	5.0	5.0	10.0	10.0	10.0
11	.5	.5	.5	4.0	3.5	3.5	5.0	5.0	5.0	10.0	9.5	10.0
12	1.5	.5	1.0	3.5	2.5	3.0	5.0	5.0	5.0	10.0	9.5	9.5
13	1.0	.5	.5	5.0	3.0	3.5	5.5	5.0	5.5	10.5	9.5	10.0
14	2.0	.5	1.0	5.5	3.0	4.0	6.0	5.5	5.5	11.5	10.0	11.0
15	2.0	1.0	1.5	4.5	3.5	4.0	6.0	6.0	6.0	11.5	11.0	11.0
16	4.0	1.5	2.5	5.5	3.5	4.0	6.0	5.5	6.0	11.0	10.5	11.0
17	3.0	2.0	2.5	6.0	3.5	4.5	6.0	5.5	5.5	11.5	10.5	11.0
18	4.5	1.5	2.5	4.5	4.0	4.0	6.0	5.5	5.5	12.0	10.5	11.0
19	4.5	1.0	2.5	4.5	4.5	4.5	5.5	5.0	5.5	12.0	11.0	11.5
20	4.5	1.0	2.5	4.5	3.5	4.0	5.0	5.0	5.0	12.0	11.0	11.5
21	4.5	1.5	3.0	4.0	3.5	4.0	5.0	5.0	5.0	13.0	11.5	12.0
22	5.0	1.5	3.0	4.0	3.5	4.0	5.5	5.0	5.0	13.5	12.0	12.5
23	3.5	2.5	3.0	4.0	3.5	3.5	6.0	5.5	5.5	14.0	12.5	13.0
24	3.5	2.5	2.5	3.5	3.5	3.5	6.0	5.5	5.5	13.5	13.0	13.0
25	5.0	2.0	3.0	3.5	3.0	3.5	5.5	5.0	5.0	14.5	13.0	13.5
26	3.5	1.5	2.0	3.5	3.0	3.5	5.0	5.0	5.0	14.0	13.5	13.5
27	6.0	1.0	3.0	3.5	3.5	3.5	5.5	5.0	5.5	14.0	13.5	13.5
28	7.0	2.0	4.0	3.5	3.5	3.5	6.0	5.5	6.0	14.0	13.5	14.0
29	---	---	---	3.5	3.5	3.5	6.5	6.0	6.5	14.0	14.0	14.0
30	---	---	---	4.0	3.5	3.5	7.5	6.5	7.0	14.5	14.0	14.0
31	---	---	---	4.0	3.5	3.5	---	---	---	14.5	14.0	14.0
MONTH	7.0	.5	2.0	6.0	2.5	4.0	7.5	3.5	5.0	14.5	7.5	11.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.5	14.0	14.5	23.5	19.5	21.5	27.5	23.5	25.5	27.0	20.5	23.0
2	15.0	14.0	14.5	27.5	20.0	23.5	25.5	22.0	23.5	26.5	19.0	22.0
3	16.0	14.0	15.0	29.5	21.0	25.0	29.5	21.0	24.5	27.5	20.0	23.0
4	15.5	14.5	15.0	26.0	21.0	23.0	25.0	22.5	23.5	24.0	20.5	22.5
5	16.5	14.5	15.5	20.5	19.0	19.5	28.5	22.0	24.5	27.5	20.0	23.5
6	18.0	13.5	15.5	22.0	18.0	20.0	28.5	22.5	25.0	28.0	22.0	24.5
7	15.5	13.5	14.5	25.5	17.5	21.0	29.5	23.0	25.5	27.0	21.5	24.0
8	16.0	15.0	15.5	26.5	18.5	22.0	30.0	22.0	25.5	25.0	19.5	21.5
9	17.0	15.0	16.0	26.0	20.0	22.0	29.0	23.0	25.0	26.5	19.0	22.0
10	18.0	15.5	16.5	25.5	18.0	21.5	27.5	20.0	23.5	27.5	20.5	23.5
11	17.5	15.5	16.5	24.5	18.0	21.5	22.5	19.5	20.5	28.0	22.5	24.5
12	18.5	15.5	16.5	27.0	19.5	23.5	19.5	18.0	19.0	23.5	20.0	22.0
13	20.5	15.5	17.5	26.5	20.5	23.5	24.5	17.5	20.5	22.0	18.5	19.5
14	19.0	16.0	17.0	28.0	20.0	23.5	26.5	18.5	21.5	22.5	17.0	18.5
15	20.5	16.5	18.0	28.0	21.5	24.5	26.5	19.0	22.5	22.0	15.5	18.0
16	22.5	16.5	19.0	29.0	22.5	25.5	27.0	19.5	23.0	19.5	16.0	17.5
17	24.0	17.0	20.5	28.5	21.5	24.5	28.0	20.5	24.0	21.0	17.0	18.5
18	23.5	18.0	20.5	29.0	22.5	25.0	24.5	22.5	23.0	23.0	17.0	19.5
19	23.5	18.5	20.5	27.0	22.5	24.5	28.5	21.5	24.5	25.5	18.5	21.5
20	20.5	17.0	18.5	28.5	21.5	24.5	28.5	22.5	25.0	25.5	20.0	22.5
21	25.5	17.5	21.0	27.5	21.5	24.0	27.0	20.5	23.0	22.0	18.5	21.0
22	28.5	19.0	23.5	26.0	20.0	22.5	24.5	20.0	21.5	20.0	15.5	18.0
23	28.0	19.5	23.5	26.5	19.5	23.0	27.5	20.5	23.0	19.5	14.0	16.0
24	27.5	21.0	24.0	25.5	21.0	22.5	28.0	20.0	23.0	19.5	13.5	15.5
25	26.0	20.0	22.5	26.5	21.0	23.5	27.0	19.5	23.0	20.5	12.5	15.5
26	23.0	18.0	20.0	27.0	20.0	23.0	28.0	21.0	24.0	19.5	13.5	15.5
27	26.5	19.0	22.5	27.0	19.5	23.0	28.0	22.5	25.0	21.5	14.0	17.0
28	23.5	17.0	19.5	28.0	20.5	24.0	29.0	23.5	25.5	22.0	15.5	17.5
29	21.0	17.0	18.5	26.0	23.0	24.0	28.0	23.0	25.0	21.5	14.0	16.5
30	26.0	16.0	20.5	28.0	22.0	24.5	27.5	21.5	24.0	18.0	14.0	16.0
31	---	---	---	28.5	23.0	26.0	23.5	22.0	22.5	---	---	---
MONTH	28.5	13.5	18.5	29.5	17.5	23.0	30.0	17.5	23.5	28.0	12.5	20.0



## HUDSON RIVER BASIN

67

01350200 WEST KILL AT NORTH BLENHEIM, NY

LOCATION.--Lat 42°28'07", long 74°27'34", Schoharie County, Hydrologic Unit 02020005, on left bank 75 ft upstream from highway bridge on State Highway 30, in North Blenheim, 100 ft downstream from Mill Creek and 0.2 mi upstream from mouth.

DRAINAGE AREA.--44.6 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1975 to current year. Occasional discharge measurements, water years 1970-72.

GAGE.--Water-stage recorder. Altitude of gage is 810 ft, from topographic map.

REMARKS.--Records fair, except those for winter periods, which are poor.

AVERAGE DISCHARGE.--8 years, 87.3 ft<sup>3</sup>/s, 26.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft<sup>3</sup>/s Oct. 18, 1975, gage height, 5.91 ft from rating curve extended above 2,700 ft<sup>3</sup>/s; maximum gage height, 7.82 ft Oct. 17, 1977; minimum discharge, 0.37 ft<sup>3</sup>/s several days during Sept. 1983; minimum gage height, 0.68 ft July 25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge about 3,800 ft<sup>3</sup>/s Apr. 24, gage height unknown, only peak above base of 2,000 ft<sup>3</sup>/s; minimum discharge, 0.37 ft<sup>3</sup>/s several days during Sept., gage height 1.81 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.4	22	19	25	50	80	479	101	29	4.7	1.4
2	1.5	2.9	19	17	60	70	73	811	80	36	13	1.1
3	1.3	2.4	17	16	250	81	101	503	67	27	6.3	.80
4	1.3	3.5	16	15	221	74	116	497	97	20	4.1	.67
5	1.3	25	16	14	116	74	95	308	77	18	3.6	.67
6	1.3	14	15	13	92	93	85	232	69	16	3.2	.60
7	1.3	9.8	14	12	84	245	97	182	99	13	2.8	.49
8	1.5	7.4	12	11	78	229	142	182	66	11	2.2	.45
9	2.2	5.6	10	11	72	276	99	188	53	10	1.6	.40
10	2.9	4.7	9.0	15	66	250	285	137	46	8.9	1.4	.40
11	2.2	3.9	8.0	32	62	272	352	118	40	7.7	5.6	.45
12	1.8	3.9	7.0	26	60	254	233	105	35	7.4	15	.40
13	2.2	17	6.0	23	58	221	185	91	31	6.3	14	.45
14	3.2	14	6.0	21	56	210	175	79	32	5.3	7.0	.49
15	3.2	10	11	19	54	221	162	103	41	5.0	4.1	.45
16	5.1	9.1	35	17	52	217	655	116	32	4.7	3.2	.40
17	4.7	7.4	30	16	50	237	538	84	37	3.9	2.6	.40
18	3.5	6.2	18	15	50	237	412	72	32	3.4	3.2	.45
19	2.9	5.6	16	14	50	486	320	66	77	3.2	3.6	.45
20	2.7	5.1	14	13	51	444	310	72	36	3.0	2.8	.45
21	2.2	5.1	13	13	53	562	276	72	28	3.6	1.9	.73
22	2.0	6.7	12	15	59	500	315	61	23	6.3	1.8	8.5
23	2.0	23	12	50	62	320	493	77	18	3.6	2.0	3.6
24	2.0	19	15	220	56	241	1390	72	15	6.6	1.5	2.0
25	1.8	16	30	170	50	181	1580	57	13	7.4	1.2	1.5
26	2.0	13	50	120	46	139	952	77	11	4.4	1.1	1.3
27	1.8	13	40	90	43	119	788	137	10	3.2	1.0	1.1
28	1.8	11	35	50	44	142	638	91	167	2.6	1.1	1.0
29	2.0	30	30	40	---	134	421	82	84	2.4	.95	1.0
30	2.0	32	25	30	---	97	795	105	40	2.8	1.1	.95
31	2.0	---	22	25	---	85	---	114	---	3.4	1.3	---
TOTAL	69.5	328.7	585.0	1162	2020	6761	12163	5370	1557	285.1	118.95	33.05
MEAN	2.24	11.0	18.9	37.5	72.1	218	405	173	51.9	9.20	3.84	1.10
MAX	5.1	32	50	220	250	562	1580	811	167	36	15	8.5
MIN	1.3	2.4	6.0	11	25	50	73	57	10	2.4	.95	.40
CFSM	.05	.25	.42	.84	1.62	4.89	9.08	3.88	1.16	.21	.09	.03
IN.	.06	.27	.49	.97	1.68	5.64	10.14	4.48	1.30	.24	.10	.03
CAL YR 1982	TOTAL	21452.35	MEAN	58.8	MAX	696	MIN	.54	CFSM	1.32	IN	17.89
WTR YR 1983	TOTAL	30453.30	MEAN	83.4	MAX	1580	MIN	.40	CFSM	1.87	IN	25.40

## HUDSON RIVER BASIN

01350355 SCHOHARIE CREEK AT BREAKABEEN, NY

LOCATION.--Lat 42°32'10", long 74°24'40", Schoharie County, Hydrologic Unit 02020005, on left bank 100 ft downstream from bridge on State Highway 30, 0.9 mi north of Breakabeen, and 1.1 mi downstream from Keyser Kill.

DRAINAGE AREA.--443 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1975 to current year.

REVISED RECORDS.--WDR NY-79-1: Drainage area. WDR NY-81-1: 1980(M).

GAGE.--Water-stage recorder. Datum of gage is 686.79 ft National Geodetic Vertical Datum of 1929. (Soil Conservation Service Benchmark.)

REMARKS.--Records fair except those for winter periods, which are poor. Regulation of flow by Blenheim-Gilboa Pumped Storage Project. Entire flow, runoff from 314 mi<sup>2</sup>, except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York. For periods of spill see station 01350101.

AVERAGE DISCHARGE.--8 years, 605 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,000 ft<sup>3</sup>/s Mar. 21, 1980, gage height, 18.34 ft from floodmarks from rating curve extended above 11,000 ft<sup>3</sup>/s; minimum, 1.7 ft<sup>3</sup>/s Oct. 14, 1980; minimum gage height, 1.32 ft Sept. 22, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 18,000 ft<sup>3</sup>/s April 25, gage height, 10.9 ft from floodmarks; minimum, 7.8 ft<sup>3</sup>/s Sept. 19, gage height, 1.69 ft; minimum gage height, 1.40 ft, Aug. 10; minimum daily discharge, 8.1 ft<sup>3</sup>/s Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	12	38	34	69	88	872	3900	964	61	19	13
2	9.4	12	31	30	80	150	786	4700	803	64	29	14
3	9.4	11	28	27	601	170	955	3400	705	59	24	14
4	9.7	12	26	24	452	150	1500	2900	464	54	18	13
5	10	42	24	21	210	160	1270	2100	495	72	15	11
6	9.7	30	25	22	189	230	1150	1700	343	61	15	10
7	9.4	20	24	25	166	420	1110	1400	630	39	14	10
8	9.7	17	21	22	160	450	1430	1300	713	34	12	10
9	10	16	20	20	142	560	1910	1700	580	31	11	13
10	10	14	16	19	140	450	2450	1350	476	29	10	11
11	10	13	15	41	130	507	5040	1100	359	27	16	11
12	10	13	14	45	120	464	2730	950	241	26	32	10
13	10	24	14	35	110	406	1950	1000	166	24	35	11
14	11	28	14	28	123	364	1610	740	218	23	24	10
15	12	20	18	26	118	369	1500	964	189	22	18	10
16	14	18	38	24	106	401	5600	1240	115	27	16	10
17	14	15	64	23	101	417	5000	872	85	23	14	12
18	13	14	36	22	103	412	3570	854	88	20	15	9.4
19	12	14	26	22	110	1100	2880	721	123	20	17	8.1
20	11	14	25	22	110	6600	2470	803	154	19	14	9.7
21	11	14	24	23	106	7000	2150	786	67	20	13	9.7
22	11	14	23	29	126	8000	2270	705	50	24	13	17
23	11	28	23	36	131	5000	3030	803	42	23	13	13
24	11	34	29	270	151	2500	7000	908	38	24	12	10
25	11	27	45	350	123	1500	12500	721	34	26	11	10
26	11	24	72	200	103	1020	8500	637	32	23	11	9.4
27	11	23	59	140	85	927	7500	918	31	19	11	9.0
28	11	20	54	100	75	1380	6800	1150	200	18	11	9.4
29	11	31	56	77	---	1290	6400	890	245	18	9.4	9.0
30	11	54	47	69	---	1030	6200	872	85	17	10	9.4
31	11	---	35	67	---	927	---	1060	---	16	12	---
TOTAL	334.7	628	984	1893	4240	44442	108133	43144	8735	963	494.4	326.1
MEAN	10.8	20.9	31.7	61.1	151	1434	3604	1392	291	31.1	15.9	10.9
MAX	14	54	72	350	601	8000	12500	4700	964	72	35	17
MIN	9.4	11	14	19	69	88	786	637	31	16	9.4	8.1
CAL YR 1982	TOTAL	127733.4	MEAN	350	MAX	8050	MIN	7.8				
WTR YR 1983	TOTAL	214317.2	MEAN	587	MAX	12500	MIN	8.1				

## HUDSON RIVER BASIN

69

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY

LOCATION.--Lat 42°48'00", long 74°15'48", Schenectady County, Hydrologic Unit 02020005, on right bank 0.4 mi south of Burtonsville, 2.7 mi north of Esperance, and 13.5 mi upstream from mouth.

DRAINAGE AREA.--883 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 507.98 ft National Geodetic Vertical Datum of 1929, unadjusted.

REMARKS.--Records good except those for winter periods, which are poor. Regulation of flow by Blenheim-Gilboa Pumped Storage Project. Entire flow, runoff from 314 mi<sup>2</sup>, except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York. For periods of spill see station 01350101.

AVERAGE DISCHARGE.--44 years, 1,007 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,500 ft<sup>3</sup>/s Oct. 16, 1955, gage height, 12.39 ft; minimum, 2.4 ft<sup>3</sup>/s Sept. 24, 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of March 1936 and September 1938 reached stages of 10.5 and 10.2 ft, respectively, from information furnished by local resident. However, flood of October 1903 is known to have reached a higher stage than the 1936 or 1938 flood.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,000 ft<sup>3</sup>/s Apr. 25, gage height, 7.33 ft; minimum, 14 ft<sup>3</sup>/s Sept. 16, 17, gage height, 0.53 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	23	123	90	450	498	1640	9090	1870	195	47	26
2	26	21	108	86	490	759	1560	11800	1530	154	61	25
3	22	20	93	82	1200	1240	1560	8120	1140	138	51	24
4	20	22	84	80	3190	1060	2620	7060	1150	127	48	23
5	19	45	77	90	1350	1170	2420	5190	1100	112	46	22
6	18	82	74	96	905	1310	2100	4070	882	120	40	21
7	17	82	69	99	760	2900	1870	3180	1220	114	35	20
8	17	62	67	90	680	3180	2330	2660	1210	93	32	19
9	17	50	61	80	600	4220	2860	3750	998	82	29	17
10	17	43	52	75	560	2940	3510	2930	802	73	27	16
11	16	39	48	85	520	3420	8490	2390	656	66	28	16
12	17	37	45	127	490	3000	5230	2050	518	62	44	16
13	18	39	43	130	470	2290	3750	1730	393	58	193	16
14	19	47	41	94	450	2170	3020	1630	314	54	130	16
15	21	62	45	85	440	2480	2540	1400	386	51	89	15
16	20	58	58	78	420	2420	5450	1890	315	50	66	15
17	20	50	107	76	438	2470	9930	1660	303	45	54	15
18	20	47	115	75	443	2220	7350	1330	294	47	63	15
19	21	43	86	74	450	4480	5610	1160	270	44	77	19
20	22	40	76	73	430	8770	5800	1150	291	39	71	25
21	22	39	72	74	440	8470	5580	1300	269	39	60	26
22	21	41	69	75	500	12500	5610	1140	186	41	49	52
23	19	59	68	82	700	6310	7710	1120	150	36	43	66
24	19	79	70	341	660	3960	12600	1290	130	40	37	46
25	19	93	89	1000	540	3010	28500	1180	113	46	34	37
26	19	84	160	869	490	2220	19600	999	100	46	31	31
27	19	76	196	540	450	1920	12700	1810	94	42	29	28
28	19	67	146	460	440	2100	10300	1860	113	38	28	24
29	19	71	130	430	---	2840	9410	1520	534	34	29	22
30	19	85	110	420	---	2250	12000	1500	331	33	28	21
31	19	---	98	420	---	1890	---	1710	---	35	27	---
TOTAL	612	1606	2680	6476	18956	100467	203650	89669	17662	2154	1626	734
MEAN	19.7	53.5	86.5	209	677	3241	6788	2893	589	69.5	52.5	24.5
MAX	31	93	196	1000	3190	12500	28500	11800	1870	195	193	66
MIN	16	20	41	73	420	498	1560	999	94	33	27	15
CAL YR 1982	TOTAL	299965	MEAN	822	MAX	12400	MIN	16				
WTR YR 1983	TOTAL	446292	MEAN	1223	MAX	28500	MIN	15				

## HUDSON RIVER BASIN

01357500 MOHAWK RIVER AT COHOES, NY

LOCATION.--Lat 42°47'07", long 73°42'29", Albany County, Hydrologic Unit 02020004, on right bank at Niagara Mohawk Power Corp. School Street powerplant in Cohoes, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--3,456 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1917 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to July 17, 1925, published as "at Crescent Dam".

REVISED RECORDS.--WSP 741: Drainage area. WSP 1302: 1919-23 (M).

GAGE.--Water-stage recorder. Datum of gage is 49.13 ft National Geodetic Vertical Datum of 1929. Dec. 1, 1917, to July 16, 1925, water-stage recorder at site 1.7 mi upstream at Crescent Dam at datum 130.87 ft higher. July 17 to Oct. 19, 1925, powerplant gage at present site.

REMARKS.--Records good. Total flow of Mohawk River equals flow published at Cohoes which includes small diversion for Cohoes water supply plus flow diverted at Crescent Dam to Barge Canal through Lock 6. Prior to 1925 records published as total flow. See Diversions in Hudson River Basin for regulation and diversions upstream from this station.

COOPERATION.--Diversions through Barge Canal at Lock 6 furnished by New York State Department of Transportation.

AVERAGE DISCHARGE.--7 years (1919-25), 5,820 ft<sup>3</sup>/s, includes diversion at Lock 6; 58 years (1926-83), 5,703 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143,000 ft<sup>3</sup>/s Mar. 6, 1964, result of release from ice jam, gage height, 23.15 ft, from rating curve extended above 100,000 ft<sup>3</sup>/s; minimum, 6 ft<sup>3</sup>/s Sept. 18, 1941, gage height, 3.40 ft; minimum daily, 23 ft<sup>3</sup>/s Aug. 24, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 41,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 25	2230	*71,800	*19.42	May 2	1700	53,400	18.11

Minimum discharge, 143 ft<sup>3</sup>/s Sept. 18, gage height, 4.70 ft; minimum daily, 511 ft<sup>3</sup>/s July 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1310	1220	10100	5090	3040	3910	6600	34800	7870	1980	1230	2140
2	1290	1370	7750	4060	3230	4510	5940	46100	7750	1710	1700	2170
3	959	1450	6070	3560	3940	6190	5850	43500	6500	1620	1320	1280
4	883	1490	4620	2830	15600	6620	7030	37800	5510	1370	1440	949
5	876	2640	3830	2660	13400	5930	8160	30400	6900	1100	1240	1270
6	926	3210	3280	2390	9300	7070	7590	21600	5190	1230	1260	773
7	962	3170	2440	2940	6920	9030	6860	15700	6190	1560	1180	1100
8	940	2950	2900	2590	5260	15000	7020	12100	6680	1500	804	1040
9	1330	1660	2220	2450	4310	16300	8600	12700	5900	732	945	828
10	1340	1350	2140	2320	3880	14600	8960	13500	4360	511	1100	688
11	1260	1380	2270	3030	3500	13200	19000	8950	4440	813	1650	623
12	1000	1880	2070	3330	2400	14500	17300	5590	4050	758	1900	820
13	915	2360	1750	3210	3150	11800	12600	2460	2700	689	1850	835
14	913	2090	1110	3180	3620	10200	9780	6300	1860	673	2790	799
15	1220	2310	2240	2910	3450	9780	7980	5580	2090	854	1470	1220
16	1210	1760	1830	2210	3290	9100	13300	7280	2280	879	1390	1060
17	1210	1400	2540	1920	3270	8570	35400	6840	2230	562	1260	848
18	1000	1290	3820	1950	3240	7840	29000	5350	2190	671	1180	592
19	1090	1330	3320	1540	3450	9450	22000	5400	3190	804	1100	988
20	1080	1240	2520	1540	4380	14600	24200	5200	2140	844	1340	857
21	1240	1280	2430	1830	4570	16600	22000	7490	2060	857	1150	1050
22	1380	1840	2430	2450	4390	19600	18600	6900	2160	982	1030	2180
23	1400	4710	2350	2400	4840	16900	22000	6620	2140	806	1170	2940
24	1560	5330	2090	2660	5300	11200	27000	8400	1850	880	1630	2160
25	1290	4950	2810	4740	5600	8550	55100	8140	1480	985	1300	1290
26	1110	4220	5070	6690	4840	7650	59300	5320	1130	853	1110	1260
27	1140	3330	9290	5820	4360	6320	37900	7380	1750	992	1340	1340
28	1080	2780	8010	4770	4220	6550	29600	7050	1700	1010	1840	1010
29	1140	3350	9400	4380	---	7980	23900	5330	1870	1000	725	861
30	1230	7730	9330	3620	---	8540	24700	5420	1980	1130	1110	846
31	1100	---	6920	3180	---	7940	---	6010	---	615	1350	---
TOTAL	35384	77070	128950	98250	140750	316030	583270	401210	108140	30970	41904	35817
MEAN	1141	2569	4160	3169	5027	10190	19440	12940	3605	999	1352	1194
MAX	1560	7730	10100	6690	15600	19600	59300	46100	7870	1980	2790	2940
MIN	876	1220	1110	1540	2400	3910	5850	2460	1130	511	725	592
CAL YR 1982	TOTAL	1886398	MEAN	5168	MAX	45400	MIN	196				
WTR YR 1983	TOTAL	1997745	MEAN	5473	MAX	59300	MIN	511				



## HUDSON RIVER BASIN

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## 01357500 MOHAWK RIVER AT COHOES, NY--Continued

(01357499) Diversion, in cubic feet per second, from Mohawk River at Crescent Dam, NY, through Barge Canal at lock 6, water year October 1982 to September 1983

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	102	114	3.0	3.0	3.0	3.0	102	126	144	144	126
2	138	120	108	3.0	3.0	3.0	3.0	102	132	162	174	162
3	150	126	108	3.0	3.0	3.0	3.0	102	138	162	150	150
4	144	108	102	3.0	3.0	3.0	3.0	102	120	156	180	132
5	162	114	102	3.0	3.0	3.0	3.0	108	144	150	174	174
6	150	114	108	3.0	3.0	3.0	3.0	108	132	132	156	126
7	120	108	3.0	3.0	3.0	3.0	3.0	108	162	150	156	120
8	150	114	3.0	3.0	3.0	3.0	3.0	102	138	162	156	120
9	162	114	3.0	3.0	3.0	3.0	3.0	108	138	180	138	156
10	144	114	3.0	3.0	3.0	3.0	3.0	132	156	168	156	132
11	138	108	3.0	3.0	3.0	3.0	3.0	132	138	168	126	138
12	144	126	3.0	3.0	3.0	3.0	3.0	132	126	156	156	156
13	126	120	3.0	3.0	3.0	3.0	3.0	162	144	150	150	144
14	108	114	3.0	3.0	3.0	3.0	3.0	144	120	144	156	126
15	132	108	3.0	3.0	3.0	3.0	3.0	150	120	156	138	120
16	144	114	3.0	3.0	3.0	3.0	102	132	156	168	156	120
17	150	108	3.0	3.0	3.0	3.0	102	138	150	174	138	144
18	144	108	3.0	3.0	3.0	3.0	102	138	144	174	144	144
19	138	114	3.0	3.0	3.0	3.0	102	150	132	162	150	126
20	120	108	3.0	3.0	3.0	3.0	102	150	144	150	150	132
21	126	114	3.0	3.0	3.0	3.0	102	132	144	156	144	120
22	144	108	3.0	3.0	3.0	3.0	102	126	144	162	150	144
23	126	114	3.0	3.0	3.0	3.0	102	156	144	162	150	156
24	138	108	3.0	3.0	3.0	3.0	102	132	156	156	156	132
25	120	102	3.0	3.0	3.0	3.0	102	132	150	168	138	132
26	138	108	3.0	3.0	3.0	3.0	102	168	150	144	162	138
27	120	102	3.0	3.0	3.0	3.0	102	132	144	156	192	138
28	114	102	3.0	3.0	3.0	3.0	114	144	150	162	168	132
29	114	102	3.0	3.0	---	3.0	108	150	132	162	144	144
30	144	102	3.0	3.0	---	3.0	102	144	150	144	144	126
31	126	---	3.0	3.0	---	3.0	---	156	---	132	126	---
TOTAL	4200	3324	717.0	93.0	84.0	93.0	1593.0	4074	4224	4872	4722	4110
MEAN	135	111	23.1	3.00	3.00	3.00	53.1	131	141	157	152	137
MAX	162	126	114	3.0	3.0	3.0	114	168	162	180	192	174
MIN	108	102	3.0	3.0	3.0	3.0	3.0	102	120	132	126	120

CAL YR 1982 TOTAL 31461.0 MEAN 86.2 MAX 192 MIN 3.0  
WTR YR 1983 TOTAL 32106.0 MEAN 88.0 MAX 192 MIN 3.0

## 01357500 MOHAWK RIVER AT COHOES, NY

## REGULATION

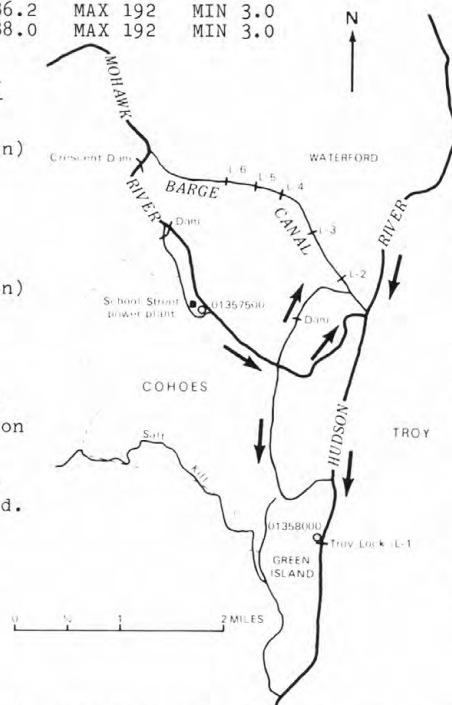
(see Reservoirs in Hudson River Basin)

Delta Dam.  
Hinckley Reservoir.  
Schoharie Reservoir.

## DIVERSIONS

(see Reservoirs in Hudson River Basin)

From Chenango River basin through Oriskany Creek Feeder.  
From (and occasionally into) Oswego River basin through summit level of Erie (Barge) Canal between New London and Utica.  
From Black River basin through Black River Canal during navigation period.  
Into Esopus Creek from Schoharie Reservoir through Shandaken Tunnel for New York City water supply.



## 01358000 HUDSON RIVER AT GREEN ISLAND, NY

## REGULATION

Great Sacandaga Lake at Conklingville (see station 01323500).  
Indian Lake near Indian Lake (see station 01314500).  
Mohawk River regulation listed under Mohawk River at Cohoes.

## DIVERSIONS

Mohawk River diversions listed under Mohawk River at Cohoes.  
Into St. Lawrence River basin through: Glens Falls feeder at Dunham Basin (see station 01327500).  
Bond Creek at Dunham Basin (see station 01328000).  
Champlain (Barge) Canal (see station 01327500).  
From St. Lawrence River basin through summit level of Champlain (Barge) Canal at Dunham Basin

Figure 5.--Gaging stations and diversions near mouth of Mohawk River.

## HUDSON RIVER BASIN

01358000 HUDSON RIVER AT GREEN ISLAND, NY

(National stream-quality accounting network station)

(National pesticide network station)

(National radiochemical network station)

LOCATION.--Lat 42°45'08", long 73°41'22", Albany County, Hydrologic Unit 02020003, on right bank at Green Island, just upstream from Troy lock and dam, and 0.5 mi downstream from 5th branch Mohawk River. Water-quality sampling site at bridge on State Highway 7, 1.7 mi downstream from discharge station.

DRAINAGE AREA.--8,090 mi<sup>2</sup>, approximately (including that above site of former auxiliary gage).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.31 ft below National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). From July 1, 1946 to Mar. 12, 1962 auxiliary water-stage recorder on bypass channel at datum 10.59 ft higher.

REMARKS.--Records fair above 15,000 ft<sup>3</sup>/s, and poor below. Records include flow over spillway, estimates of flow through lock, and flow through powerplant. Powerplant, located on right bank just downstream from gage, was inoperative from Nov. 20, 1960 to Feb. 23, 1971. See Diversions in Hudson River Basin for regulation and diversions upstream from this station.

AVERAGE DISCHARGE.--37 years, 13,711 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181,000 ft<sup>3</sup>/s Dec. 31, 1948, gage height, 27.05 ft, from high-water mark in gage well; maximum daily, 152,000 ft<sup>3</sup>/s Mar. 14, 1977; minimum daily, 882 ft<sup>3</sup>/s Sept. 2, 1968; minimum gage height 13.68 ft July 6, 1981, when pool was lowered for inspection of flashboards.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1936, reached a stage of 29.48 ft at gage on opposite bank, from information by Corps of Engineers (discharge, 215,000 ft<sup>3</sup>/s). Flood of Mar. 28, 1913, prior to construction of Sacandaga Reservoir and Troy lock and dam, reached a stage about 0.2 ft higher upstream from former dam near same site. Downstream from dams, flood in 1913 was about 3.3 ft higher than flood in 1936, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 106,000 ft<sup>3</sup>/s Apr. 26, gage height, 22.83 ft; minimum daily, 2,330 ft<sup>3</sup>/s July 25; minimum gage height, 13.98 ft Sept. 6, when pool was lowered for inspection of flashboards.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4520	3330	14100	11500	10900	10100	13200	68500	28300	6520	3440	6510
2	4900	4300	11500	9270	9410	11200	10900	90500	27000	5490	7110	6030
3	3560	4530	10100	8570	15200	14400	11200	91600	24000	5350	6620	4630
4	2960	5280	8610	9190	34400	14700	14000	85800	22300	5250	6370	3800
5	4010	6740	7110	7040	28000	13400	16400	75500	23800	3430	4040	3900
6	4140	10300	5860	6890	20200	13300	14300	60600	21100	5280	5310	3530
7	3960	12100	6660	7560	16300	15800	13400	54200	20300	6110	5210	4250
8	4390	8870	7180	7380	14000	23300	15200	39800	20000	6770	5370	4070
9	4450	7280	7140	7470	13100	27300	17800	40300	18900	4800	5610	4510
10	5350	6760	5810	7380	11300	25600	18800	42900	13800	3740	6260	3660
11	4120	5650	4980	8350	10500	24700	36400	34500	14000	3900	6510	3580
12	4520	5790	4620	11200	9100	27000	35500	29600	12200	4600	4930	3580
13	5000	6570	3790	10200	8940	22800	26700	24700	10200	4340	7000	3060
14	4530	7070	4040	9250	9330	20900	22200	27500	10200	4720	8170	3890
15	4050	6190	5300	6930	9870	20600	18600	25700	8850	5040	7010	4860
16	4310	5990	5020	7300	8730	19900	23500	28000	8070	3690	6830	4070
17	4180	6150	7380	7280	9820	19700	54200	21900	7780	3480	6680	3930
18	3560	5100	9320	7380	9620	18700	52300	18400	8380	3950	7020	3430
19	4730	5250	7540	7770	9240	20600	44600	15900	8020	4180	5070	3430
20	4800	5070	5640	7020	9490	29600	53300	15700	7150	3810	5270	3810
21	4260	4380	5880	7100	8670	33400	49500	20400	7360	3980	4400	4620
22	4880	4350	7020	7080	9810	37800	40400	19200	8080	4170	3690	6330
23	5190	9190	5810	7480	10700	31800	43400	20300	7020	3980	4730	7860
24	5190	10000	6250	8580	11900	23500	47200	26500	7140	3710	5270	7090
25	4030	9520	6980	14800	11300	19600	85700	22000	5240	2330	4810	4940
26	4460	8130	8710	17600	10600	16600	99900	17800	4900	5070	4610	8440
27	4320	7590	15300	15100	9130	13500	76800	21500	4780	4730	4640	5040
28	4400	6930	14100	13000	8670	15700	61800	24300	7010	4760	4780	4620
29	4490	7580	15200	11000	---	17700	52800	22300	6630	5060	3450	4520
30	4830	11800	15600	9150	---	17600	56300	22700	6680	2930	4590	4560
31	4120	---	13000	8110	---	14700	---	26500	---	3720	5000	---
TOTAL	136210	207790	255550	283930	348230	635500	1126300	1135100	379190	138890	169800	140550
MEAN	4394	6926	8244	9159	12440	20500	37540	36620	12640	4480	5477	4685
MAX	5350	12100	15600	17600	34400	37800	99900	91600	28300	6770	8170	8440
MIN	2960	3330	3790	6890	8670	10100	10900	15700	4780	2330	3440	3060
CAL YR 1982	TOTAL	4444820	MEAN	12180	MAX	72400	MIN	2590				
WTR YR 1983	TOTAL	4957040	MEAN	13580	MAX	99900	MIN	2330				

01358000 HUDSON RIVER AT GREEN ISLAND, NY--Continued

## WATER-QUALITY RECORDS

## PERIOD OF RECORD.--Water years 1955 to current year.

CHEMICAL DATA: 1963 (a), 1964-65 (e), 1966-77 (d), 1978 (c), 1979-82 (d), 1983 (b).

MINOR ELEMENTS DATA: 1970-71 (a); 1972-73, 1975-79 (b), 1980-83 (b).

RADIOCHEMICAL DATA: 1968-71 (c), 1973-75 (a), 1976 (d), 1977 (a), 1978 (b), 1979-80 (a), 1981 (b), 1982-83 (a).

PESTICIDE DATA: 1976-77 (b), 1978 (a), 1979 (c), 1980, 82 (a).

ORGANIC DATA: OC--1974 (a), 1975 (c), 1976-77 (b), 1978 (a), 1979 (c), 1980-81 (d).

PCB--1978 (a), 1979 (b), 1980 (a).

NUTRIENT DATA: 1968 (b), 1969-76 (d), 1977-79 (c), 1980-82 (d), 1983 (b).

## BIOLOGICAL DATA:

Bacteria--1971 (a), 1973-74 (d), 1975 (a), 1976-78 (c), 1979-81 (d), 1983 (b).

Phytoplankton--1975 (a), 1976-77 (c), 1978 (b), 1979-81 (c).

Periphyton--1976-77 (b), 1978 (a), 1979-80 (b).

SEDIMENT DATA: 1975 (b), 1976 (d), 1977 (b), 1978 (c), 1979-82 (d), 1983 (b).

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1965, once-daily measurements, unpublished.

pH: October 1964 to September 1965, once-daily measurements, unpublished.

WATER TEMPERATURES: April 1947 to September 1954, once-daily measurements, unpublished; October 1954 to September 1981.

REMARKS.--Prior to October 1968 sampling site at old bridge on State Highway 7 about 100 ft upstream, and between April 1971 and September 1973 sampling site at former bridge on road between Green Island and Troy at Starbuck Island.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 16...	1200	5990	180	7.1	5.0	4.8	776	12.3	95	3000
MAR 03...	1200	14400	225	7.0	1.5	5.5	761	15.1	108	330
JUN 14...	1230	10200	142	7.8	21.5	3.1	764	11.6	131	680
SEP 20...	1100	3810	238	7.1	22.0	1.5	770	8.8	100	2000

DATE	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 16...	1300	69	21	21	4.0	8.6	.8	48	21	8.7
MAR 03...	58	89	25	27	5.2	9.8	1.3	64	25	16
JUN 14...	240	59	16	18	3.4	5.6	.7	43	13	9.2
SEP 20...	200	88	33	28	4.4	12	1.1	55	27	20

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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 16...	<.10	3.7	113	97	.47	.100	.50	.050	.020	.020
MAR 03...	.20	5.1	143	129	.78	.180	.30	.050	.020	.020
JUN 14...	<.10	4.2	89	80	.32	.040	.60	.030	.020	.010
SEP 20...	.10	3.2	128	129	.69	.080	.90	.040	.020	<.010

## HUDSON RIVER BASIN

01358000 HUDSON RIVER AT GREEN ISLAND, NY--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 16...	40	1	23	<1	7	<1	<3	--	82	--
MAR 03...	50	1	26	1	8	4	3	7	58	5
JUN 14...	30	1	35	<1	120	<1	<3	16	57	<1
SEP 20...	10	1	33	<1	<1	<1	<3	3	23	1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 16...	7	17	.3	<10	--	<1	1	98	<6.0	7
MAR 03...	4	32	<.1	10	1	1	<1	170	6.0	8
JUN 14...	<4	16	<.1	<10	3	<1	<1	78	<6.0	9
SEP 20...	<4	6	<.1	<10	<1	<1	<1	170	<6.0	8

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (PT FM L BANK)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)
JUN					
14...	1115	367	26.3	146	7.5
14...	1135	637	4.9	156	7.8
14...	1155	574	11.2	153	7.8
14...	1220	480	20.8	151	7.7
14...	1235	429	21.3	151	7.7
14...	1255	304	24.1	142	7.8
14...	1306	241	21.9	153	7.8
14...	1335	159	20.4	140	7.8
14...	1345	97	18.9	135	7.8
14...	1357	35	18.9	132	7.8

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	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)
MAR 03...	1205	<2.9	<.4	3.0	<.4	2.8	<.4	.05	.21
SEP 20...	1105	<4.1	<.4	2.3	<.4	2.0	<.4	.06	.12

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 16...	1200	5990	9	146	--	JUN 14...	1230	10200	28	771	93
MAR 03...	1200	14400	30	1170	96	SEP 20...	1100	3810	3	31	--



## HUDSON RIVER BASIN

75

01359139 HUDSON RIVER AT ALBANY, NY

LOCATION.--Lat 42 38'57", long 73 44'46", Albany County, Hydrologic Unit 02020006, on right bank 0.5 mi upstream from bridge on U.S. Highways 9 and 20 in Albany, and 0.5 mi downstream from the Penn Central Transportation Company bridge.

DRAINAGE AREA.--8,290 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1972 to September 1976, April 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Gage-height record converted to elevation above or below (-) mean sea level for publication.

## TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
<u>Maximum high tide</u>												
Elevation	5.88	5.51	5.56	5.62	5.94	6.53	9.51	7.88	5.43	5.01	5.14	5.02
Date	10	4	19	11	3	21	26	2	11	24	12	7
<u>Minimum low tide</u>												
Elevation	-2.38	-3.44	-2.98	-2.81	-2.51	-1.87	-1.01	-1.06	-2.25	-2.75	-2.14	-2.04
Date	18	27	9	9	8	30	5	21	25	22	7	9
Mean high tide	4.32	4.11	4.30	3.90	4.14	4.90	5.89	5.69	4.80	4.45	4.48	4.37
Mean water level	1.50	1.25	1.42	1.22	1.73	2.31	3.69	3.33	1.84	1.38	1.52	1.47
Mean low tide	-1.47	-1.83	-1.72	-1.60	-0.76	-0.31	1.39	0.83	-1.27	-1.85	-1.64	-1.60

## HUDSON RIVER BASIN

01359528 NORMANS KILL AT ALBANY, NY

LOCATION.--Lat 42°38'00", long 73°48'22", Albany County, Hydrologic Unit 02020006, on left bank, 0.35 mi upstream from bridge on Normans Kill Road at Normansville, and 0.40 mi upstream from Delaware Avenue bridge in Albany.

DRAINAGE AREA.--168 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1979 to April 1983 (discontinued). Occasional low-flow measurements, water years 1949, 1954, 1959, 1962-65.

GAGE.--Water-stage recorder. Altitude of gage is 90 ft, from topographic map.

REMARKS.--Records good except those for winter periods, which are poor. Diversion above station for municipal supply by city of Watervliet and town of Guilderland. Seasonal diversions for two golf courses.

COOPERATION.--Figures of diversions from Watervliet Reservoir for municipal supply furnished by city of Watervliet and town of Guilderland.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 11,600 ft<sup>3</sup>/s Mar. 22, 1980, gage height, 13.41 ft; minimum, 11 ft<sup>3</sup>/s Sept. 29, Oct. 9, 1980, Sept. 30, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,200 ft<sup>3</sup>/s and maximum (\*) during period October 1982 to April 1983:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 20	0430	2,580	7.20	Apr. 26	0045	*3,870	*8.37
Apr. 17	0400	2,680	7.29	Apr. 30	1845	2,400	7.01
Apr. 20	2400	2,540	7.15				

Minimum discharge during period, 12 ft<sup>3</sup>/s Dec. 10, 13, Jan. 4, gage height, 2.97 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO APRIL 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	15	26	23	20	84	176	236
2	15	28	23	20	80	309	207
3	16	23	22	22	250	569	252
4	17	26	22	16	1020	507	363
5	17	95	20	16	420	474	319
6	17	34	22	20	180	518	263
7	19	23	23	22	150	866	238
8	19	20	19	22	130	1150	313
9	23	20	19	17	120	1440	309
10	28	19	17	19	150	983	383
11	19	19	16	91	120	1170	1330
12	17	19	17	51	100	1030	701
13	19	39	14	30	94	807	440
14	29	29	14	25	90	788	319
15	22	22	16	22	94	812	255
16	19	19	26	21	100	727	770
17	19	19	29	20	110	605	2170
18	19	19	16	19	130	499	1410
19	20	19	17	19	190	1410	865
20	20	19	19	19	170	2170	1920
21	20	22	20	20	160	1360	1890
22	20	29	19	21	175	1750	1430
23	20	62	19	26	207	812	1540
24	20	36	26	60	246	485	1500
25	22	25	31	150	223	346	3550
26	23	23	29	400	192	272	2710
27	19	25	26	280	156	234	1250
28	19	20	25	180	160	338	845
29	20	29	25	130	---	436	568
30	20	26	23	100	---	354	1430
31	20	---	20	90	---	273	---
TOTAL	612	834	657	1968	5301	23670	29776
MEAN	19.7	27.8	21.2	63.5	189	764	993
MAX	29	95	31	400	1020	2170	3550
MIN	15	19	14	16	80	176	207
*	7.69	7.43	7.10	6.75	6.92	6.50	6.90

CAL YR 1982 TOTAL 56316 MEAN 154 MAX 2220 MIN 13 \* 7.68

\* Diversion, in cubic feet per second, from Watervliet Reservoir for municipal supply.

## HUDSON RIVER BASIN

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01359750 MOORDENER KILL AT CASTLETON-ON-HUDSON, NY

LOCATION.--Lat 42°32'02", long 73°44'15", Rensselaer County, Hydrologic Unit 02020006, on left bank 800 ft downstream from bridge on State Highway 150, 0.2 mi east of village of Castleton-on-Hudson, 0.5 mi downstream from unnamed tributary, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--32.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 98.72 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are poor. Slight diurnal fluctuation of low flow by mills upstream and occasional regulation at dam 800 ft upstream.

AVERAGE DISCHARGE.--26 years, 38.1 ft<sup>3</sup>/s, 15.87 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft<sup>3</sup>/s Jan. 22, 1959, gage height, 3.63 ft; maximum gage height, 4.02 ft Jan. 27, 1976 (ice jam); minimum discharge, 0.30 ft<sup>3</sup>/s Aug. 9, 10, 1964, gage height, 0.25 ft; minimum daily, 1.0 ft<sup>3</sup>/s Sept. 6, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	1800	*682	*2.77	Apr. 25	2030	495	2.43
Apr. 20	0600	652	2.72				

Minimum discharge, 3.8 ft<sup>3</sup>/s Oct. 4, 5, 7; minimum gage height, 0.63 ft Sept. 14, 15, 16, 17, 19, 20, 21, 29; minimum daily, 4.1 ft<sup>3</sup>/s Oct. 4-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	5.5	22	12	44	44	59	121	72	21	9.4	10
2	4.4	5.5	19	11	36	90	52	144	58	19	11	7.3
3	4.4	5.5	17	9.6	375	99	73	117	48	18	9.7	6.4
4	4.1	5.9	17	9.0	317	86	82	108	74	17	9.0	5.9
5	4.1	35	15	13	90	90	65	96	65	18	9.0	5.9
6	4.1	17	17	11	70	85	56	79	51	18	8.8	5.5
7	4.1	9.6	17	10	62	106	53	67	79	16	8.2	5.5
8	4.4	7.3	15	9.0	82	109	86	61	57	14	7.5	5.5
9	4.8	6.4	13	8.2	68	191	77	126	44	15	7.3	5.1
10	4.8	5.5	12	10	58	137	124	97	38	14	6.9	5.1
11	4.4	5.5	11	40	52	182	242	77	34	12	12	5.1
12	4.4	5.5	10	49	48	137	140	66	30	12	20	5.1
13	5.1	43	11	43	45	126	103	59	27	11	14	5.1
14	5.5	31	10	27	44	136	83	53	24	11	11	4.9
15	5.5	20	11	22	44	163	71	60	22	10	9.1	4.9
16	5.5	15	15	21	46	175	132	75	48	10	8.2	4.9
17	5.1	12	28	19	60	176	242	59	155	9.8	7.8	5.0
18	5.1	11	20	18	74	148	241	49	57	9.4	10	5.1
19	5.1	9.6	15	17	52	142	247	44	40	9.2	11	5.0
20	5.1	9.0	12	16	46	164	490	46	33	9.0	9.4	5.0
21	5.1	9.0	11	15	43	187	339	53	29	10	8.0	10
22	5.1	12	11	15	43	233	261	46	25	19	7.7	34
23	5.1	38	12	21	48	137	247	66	22	12	7.7	14
24	5.1	30	14	40	51	103	207	100	19	11	7.4	9.5
25	5.1	22	19	170	48	85	383	66	18	11	7.1	7.9
26	5.1	19	23	88	40	71	340	55	17	10	6.8	7.1
27	5.1	18	20	56	36	66	218	149	16	9.3	6.9	6.6
28	5.5	16	17	40	40	114	157	117	46	8.6	6.8	6.3
29	5.1	24	21	35	---	94	122	85	54	8.4	6.8	6.0
30	5.1	26	17	36	---	70	142	79	29	8.7	9.0	5.9
31	5.1	---	14	68	---	64	---	77	---	10	12	---
TOTAL	150.9	478.8	486	958.8	2062	3810	5134	2497	1331	391.4	285.5	219.6
MEAN	4.87	16.0	15.7	30.9	73.6	123	171	80.5	44.4	12.6	9.21	7.32
MAX	5.5	43	28	170	375	233	490	149	155	21	20	34
MIN	4.1	5.5	10	8.2	36	44	52	44	16	8.4	6.8	4.9
CFSM	.15	.49	.48	.95	2.26	3.77	5.25	2.47	1.36	.39	.28	.23
IN.	.17	.55	.55	1.09	2.35	4.35	5.86	2.85	1.52	.45	.33	.25

CAL YR 1982	TOTAL	13251.5	MEAN	36.3	MAX	266	MIN	3.8	CFSM	1.11	IN	15.12
WTR YR 1983	TOTAL	17805.0	MEAN	48.8	MAX	490	MIN	4.1	CFSM	1.50	IN	20.32

## HUDSON RIVER BASIN

01362198 ESOPUS CREEK AT SHANDAKEN, NY  
(Hydrologic bench-mark station)

LOCATION.--Lat 42°06'59", long 74°23'20", Ulster County, Hydrologic Unit 02020006, on left bank 2,400 ft downstream from bridge on State Highway 28, at Shandaken, 0.5 mi downstream from Bushnellsville Creek, 0.5 mi upstream from Fox Hollow Creek, and 5.2 mi northwest of Phoenicia. Water-quality sampling site at discharge station.

DRAINAGE AREA.--59.5 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,017.27 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Occasional slight regulation when filling or draining swimming pools or small ponds above station.

AVERAGE DISCHARGE.--20 years, 139 ft<sup>3</sup>/s, 31.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,900 ft<sup>3</sup>/s Mar. 21, 1980, gage height, 13.00 ft from floodmarks, from rating curve extended above 2,200 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 10.88 ft; minimum, 2.1 ft<sup>3</sup>/s Sept. 16, 1983 (result of slight regulation above station).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	1030	a1,700	a7.5	Apr. 25	0800	2,480	b8.14
Mar. 19	Unknown	*2,890	b*8.42				

a About.

b Gage height from crest-stage gage.

Minimum discharge, 2.1 ft<sup>3</sup>/s Sept. 16 (result of slight regulation above station).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	12	92	111	130	71	176	480	173	40	11	13
2	24	11	89	104	150	82	158	470	166	42	20	9.5
3	17	11	88	100	1500	100	198	390	156	53	15	8.6
4	12	14	86	96	884	103	203	320	184	46	12	7.1
5	12	62	86	95	516	112	209	290	168	43	11	6.3
6	15	48	88	89	384	124	215	270	161	34	10	5.3
7	15	40	83	85	328	146	230	250	166	26	9.0	3.8
8	13	36	78	82	269	259	355	240	146	21	7.4	3.6
9	14	34	75	76	221	343	380	220	133	19	5.6	3.8
10	10	34	74	76	195	363	654	190	123	14	4.4	4.4
11	6.7	30	70	131	176	393	660	180	112	11	13	5.0
12	6.7	31	66	119	161	380	500	176	101	7.8	24	7.1
13	8.6	72	64	110	144	351	406	168	95	7.1	30	6.7
14	9.9	67	60	110	131	312	343	158	88	6.3	23	7.4
15	9.0	62	60	110	119	287	320	158	85	6.0	18	6.3
16	11	57	137	100	111	276	980	158	86	6.3	14	4.1
17	12	55	168	100	106	269	767	144	89	10	12	6.7
18	13	52	151	96	100	259	591	133	80	10	20	8.2
19	12	50	139	90	93	2000	500	130	74	11	14	6.7
20	12	49	131	104	86	1300	419	142	70	12	11	6.0
21	13	49	123	144	85	1170	355	133	62	21	9.0	9.5
22	11	55	111	195	83	898	347	126	58	16	9.0	32
23	11	80	106	263	81	608	368	158	54	12	8.6	26
24	11	78	103	287	79	447	1010	149	50	12	7.4	23
25	12	76	107	243	79	347	1570	144	46	13	6.7	20
26	12	76	119	218	78	287	935	139	43	8.6	6.0	17
27	13	76	114	195	74	256	767	149	41	7.4	6.7	14
28	12	74	117	176	71	259	807	142	85	9.0	3.8	11
29	9.5	89	123	161	---	224	680	137	71	10	13	7.8
30	9.0	93	116	146	---	189	620	158	52	10	12	7.8
31	9.9	---	112	137	---	166	---	171	---	9.9	13	---
TOTAL	374.3	1573	3136	4149	6434	12381	15723	6273	3018	554.4	379.6	297.7
MEAN	12.1	52.4	101	134	230	399	524	202	101	17.9	12.2	9.92
MAX	24	93	168	287	1500	2000	1570	480	184	53	30	32
MIN	6.7	11	60	76	71	71	158	126	41	6.0	3.8	3.6
CFSM	.20	.88	1.69	2.25	3.85	6.68	8.78	3.38	1.69	.30	.20	.17
IN.	.23	.98	1.95	2.59	4.01	7.71	9.80	3.91	1.88	.35	.24	.19

CAL YR 1982 TOTAL 37608.0 MEAN 103 MAX 1110 MIN 6.7 CFSM 1.73 IN 23.43  
WTR YR 1983 TOTAL 54293.0 MEAN 149 MAX 2000 MIN 3.6 CFSM 2.50 IN 33.83



01362198 ESOPUS CREEK AT SHANDAKEN, NY--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL DATA: 1963-65 (a), 1966-67 (b), 1968-82 (d), 1983 (b).

MINOR ELEMENT DATA: 1964-65, 1967-73, 1975-76 (a), 1977 (b), 1978-83 (a).

RADIOCHEMICAL DATA: 1967-77, 1979-83 (a).

PESTICIDE DATA: 1967-72, 1974-77, 1979-82 (a).

ORGANIC DATA: OC--1979 (a), 1981 (c).

PCB--1974-77, 1979-82 (a).

PCN--1977, 1979-82 (a).

NUTRIENT DATA: 1968 (a), 1969-71 (d), 1972 (c), 1974 (a), 1975-82 (d), 1983 (b).

BIOLOGICAL DATA:

Bacteria--1968-69 (d), 1970-72 (c), 1973-82 (d), 1983 (b).

SEDIMENT DATA: 1969-71 (c), 1972-75, 1977-82 (d), 1983 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1963 to July 1968, January 1970 to current year.

INSTRUMENTATION.--Temperature recorder since July 1963.

REMARKS.--No temperature record Aug. 2-29 due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (except water years 1969, 1977, 1981, 1983), 28.5°C Aug. 16, 1965, Aug. 9, 1980;  
minimum, freezing point on many days during winter periods except water years 1967 and 1976.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Minimum, freezing point on several days during January.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 17...	0930	56	62	7.0	3.5	<1	746	13.4	140
MAR 01...	1430	71	61	6.0	4.0	<1	734	13.0	K1
APR 27...	0900	728	43	6.5	5.0	--	--	12.4	93
JUN 01...	0800	176	47	7.1	9.0	--	728	11.4	103
15...	1230	85	52	7.6	16.0	1	736	9.8	103
JUL 21...	0800	22	62	7.3	17.0	--	732	8.6	93
SEP 21...	0945	6.0	80	7.5	18.0	<1	735	9.2	101

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS NONCAR- BONATE (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- LINEITY LAB (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS Cl)
NOV 17...	12	20	10	5.9	1.4	2.7	.2	11	9.0	4.1
MAR 01...	K20	18	9	5.4	1.2	3.3	.4	9.0	8.6	6.2
APR 27...	--	--	--	--	--	--	--	*6	6.0	--
JUN 01...	--	--	--	--	--	--	--	*7	7.0	--
15...	--	17	6	5.1	1.1	2.2	.3	11	8.9	3.4
JUL 21...	--	--	--	--	--	--	--	*7	7.0	--
SEP 21...	50	29	4	8.7	1.7	4.4	.5	25	7.8	7.1

\* Field value.

K Results based on colony count outside the acceptable range (non-ideal colony count).

## HUDSON RIVER BASIN

01362198 ESOPUS CREEK AT SHANDAKEN, NY--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 17...	<.10	2.8	43	33	.58	<.010	<.10	<.010	<.010	<.010
MAR 01...	<.10	2.8	38	33	.28	.050	<.10	.010	<.010	<.010
APR 27...	--	--	--	--	.27	--	--	--	--	--
JUN 01...	--	--	--	--	.17	--	--	--	--	--
15...	<.10	2.7	31	30	<.10	.010	.30	.010	.010	.010
JUL 21...	--	--	--	--	.14	--	--	--	--	--
SEP 21...	.10	1.8	37	47	<.10	<.010	.40	.010	.010	<.010

DATE	ALUMINUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYLLIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHROMIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
MAR 01...	30	<1	16	<1	<1	3	<3	3	<3	4
JUN 15...	<10	1	29	<1	2	<1	<3	1	5	<1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGANESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYBDENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELENIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRONTIUM, DIS- SOLVED (UG/L AS SR)	VANADIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAR 01...	<4	2	<.1	<10	1	<1	<1	17	<6.0	5
JUN 15...	<4	3	<.1	<10	1	<1	<1	17	<6.0	<3

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	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, EXTRACTION (UG/L)
SEP 21...	0950	<1.4	<.4	<.7	<.4	<.6	<.4	.04	<.01

## HUDSON RIVER BASIN

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01362198 ESOPUS CREEK AT SHANDAKEN, NY--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 17...	0930	56	1	.15	JUN 15...	1230	85	2	.46
MAR 01...	1430	71	1	.19	SEP 21...	0945	6.0	1	.02

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

## HUDSON RIVER BASIN

01362198 ESOPUS CREEK AT SHANDAKEN, NY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.5	2.0	3.0	5.5	2.5	4.0	8.5	2.5	5.0	10.5	9.0	9.5
2	4.0	1.5	2.5	5.5	4.0	4.5	8.0	2.5	5.0	11.5	9.5	10.5
3	4.0	2.5	3.5	6.0	3.5	4.5	4.5	2.5	4.0	13.0	10.0	11.0
4	3.5	2.0	3.0	5.0	3.0	4.0	6.5	4.0	5.0	10.5	8.0	9.5
5	2.5	1.0	1.5	5.5	3.5	4.5	5.5	4.0	5.0	10.5	7.0	8.5
6	2.0	1.0	1.5	5.5	3.0	4.0	9.0	3.5	6.0	13.5	7.0	9.5
7	2.0	.5	1.0	5.0	4.0	4.5	6.5	5.5	6.0	14.5	7.5	10.5
8	2.0	1.0	1.5	4.0	4.0	4.0	8.5	6.0	7.0	12.5	9.0	10.5
9	1.5	.5	1.0	5.0	4.0	4.5	9.5	5.5	7.0	9.5	7.0	8.0
10	.5	.5	.5	4.5	3.5	4.5	6.5	5.5	5.5	9.0	6.5	7.5
11	.5	.5	.5	5.0	3.5	4.5	6.0	5.5	5.5	9.0	6.5	7.5
12	.5	.5	.5	4.0	2.0	3.0	6.5	5.0	5.5	9.5	6.5	8.0
13	.5	.5	.5	6.0	2.5	4.0	10.0	4.0	6.5	14.5	7.0	10.0
14	1.0	.5	1.0	6.0	2.5	4.0	10.0	5.0	7.0	15.5	8.5	12.0
15	2.5	.5	1.5	5.5	4.0	4.5	7.0	6.0	6.5	12.0	10.0	11.0
16	4.0	2.0	3.0	7.0	3.5	5.0	6.5	4.0	5.0	10.5	8.5	9.5
17	3.0	3.0	3.0	6.0	3.5	4.5	8.0	4.0	5.5	14.0	6.5	9.5
18	4.5	2.5	3.5	5.0	4.0	4.5	7.5	4.0	5.5	15.0	6.0	10.0
19	4.0	1.5	2.5	5.5	4.5	5.0	5.0	2.5	3.5	11.0	7.5	9.0
20	4.5	1.0	2.5	6.0	4.5	5.0	5.0	2.5	4.0	13.0	9.0	11.0
21	5.0	1.5	3.5	5.0	4.5	4.5	6.5	4.0	5.0	14.5	10.0	12.0
22	5.5	2.5	4.0	5.0	3.0	4.5	9.5	4.0	6.0	14.0	9.5	12.0
23	4.5	3.0	3.5	4.5	2.0	3.0	10.5	4.0	6.5	16.0	11.0	13.0
24	4.0	2.5	3.0	5.5	2.0	3.0	6.0	5.0	5.5	15.0	11.0	13.0
25	4.5	2.0	3.0	5.5	1.5	3.0	5.0	4.5	5.0	17.0	9.0	12.5
26	2.5	1.0	2.0	6.5	1.0	3.5	8.0	4.5	6.0	11.5	10.5	11.0
27	4.0	.5	2.0	3.5	1.5	3.0	9.5	4.5	7.0	12.0	9.5	10.5
28	4.5	1.5	3.0	5.5	1.5	3.5	11.0	6.0	8.0	15.5	7.5	11.0
29	---	---	---	6.5	2.0	4.5	10.5	7.0	8.5	10.5	9.5	10.0
30	---	---	---	6.5	1.0	3.0	11.5	8.0	9.5	13.0	10.5	11.5
31	---	---	---	7.0	1.5	4.0	---	---	---	11.5	10.0	11.0
MONTH	5.5	.5	2.0	7.0	1.0	4.0	11.5	2.5	6.0	17.0	6.0	10.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	13.5	9.5	11.0	20.0	15.0	17.5	25.0	20.5	22.5	23.5	18.0	20.0
2	16.0	9.0	12.0	24.0	16.5	20.0	---	---	---	22.5	15.5	19.0
3	14.5	9.0	12.0	25.0	17.0	21.0	---	---	---	22.0	16.5	19.5
4	14.5	11.0	12.0	22.0	18.0	20.0	---	---	---	21.5	17.0	19.5
5	16.0	10.5	13.0	19.5	17.5	18.5	---	---	---	23.5	17.0	20.5
6	18.0	11.0	14.0	21.0	16.5	18.0	---	---	---	25.0	19.0	22.0
7	17.0	12.0	14.0	22.5	14.5	18.5	---	---	---	24.0	19.5	21.5
8	17.0	11.0	13.0	23.0	14.5	19.0	---	---	---	22.5	17.0	19.5
9	17.0	9.0	12.5	22.5	17.0	19.0	---	---	---	23.0	15.5	19.0
10	18.0	9.5	13.5	22.5	14.5	18.0	---	---	---	24.0	17.0	20.5
11	18.5	11.0	14.5	22.0	14.0	18.0	---	---	---	24.5	20.0	22.0
12	19.5	11.5	15.0	24.5	16.0	20.0	---	---	---	21.5	18.5	20.0
13	19.5	12.5	16.0	24.5	18.0	21.0	---	---	---	18.0	15.5	16.5
14	19.0	13.5	15.5	25.5	16.5	21.0	---	---	---	19.0	13.5	16.0
15	18.5	13.5	16.0	25.0	18.0	21.0	---	---	---	18.5	11.5	14.5
16	18.5	14.0	16.0	26.5	20.0	22.5	---	---	---	15.5	11.5	13.5
17	19.5	13.5	16.5	26.5	18.5	22.5	---	---	---	17.5	14.0	15.5
18	18.0	14.5	16.0	25.5	19.0	22.0	---	---	---	19.5	13.5	16.0
19	18.5	14.5	16.5	23.5	19.0	21.0	---	---	---	21.5	15.0	18.0
20	19.0	14.5	16.5	23.5	18.5	20.5	---	---	---	23.0	16.5	19.5
21	21.0	14.0	17.0	24.5	18.0	21.0	---	---	---	19.5	17.0	18.5
22	22.5	13.5	17.5	24.0	17.0	20.5	---	---	---	17.5	14.0	16.0
23	22.5	14.0	18.0	24.5	16.5	20.5	---	---	---	15.0	12.0	13.5
24	22.5	15.5	18.5	22.0	18.5	19.5	---	---	---	15.0	11.0	12.5
25	21.5	14.5	18.0	24.5	18.0	20.5	---	---	---	15.0	9.5	12.0
26	18.5	13.5	15.5	24.0	17.5	21.0	---	---	---	14.5	10.0	12.0
27	23.0	14.5	18.5	25.5	16.5	20.5	---	---	---	16.5	11.0	13.5
28	19.0	15.0	16.5	25.0	17.5	21.0	---	---	---	16.5	12.5	14.0
29	22.0	14.0	17.5	22.5	19.5	21.0	---	---	---	15.5	10.5	13.0
30	22.5	13.5	17.5	24.0	20.0	22.0	24.5	18.0	21.0	13.5	11.0	12.0
31	---	---	---	24.5	20.0	22.0	21.5	19.0	20.0	---	---	---
MONTH	23.0	9.0	15.5	26.5	14.0	20.5				25.0	9.5	17.0



## HUDSON RIVER BASIN

83

01362285 WOODLAND CREEK NEAR WOODLAND, NY

LOCATION.--Lat 42°02'06", long 74°21'59", Ulster County, Hydrologic Unit 02020006, at bridge on private road, 0.9 mi upstream from Dougherty Branch and 2.3 mi southwest of Woodland.

DRAINAGE AREA.--5.18 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1983.

CHEMICAL DATA: 1983 (a).

MINOR ELEMENT DATA: 1983 (a).

ORGANIC DATA: OC--1983 (a)

REMARKS.--All cation analysis were performed on water samples which passed through a 0.1-micrometer membrane filter; while anion analysis were performed on water samples which passed through the standard 0.45-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 15...	1023	1.3	28	6.5	15.0	9	2.4	.8

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)
AUG 15...	.6	.3	3.0	1.6	7.1	.7	<.01	<.10	2.5

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 15...	17	.43	.029	<.060	60	17	1	.7

## HUDSON RIVER BASIN

01362500 ESOPUS CREEK AT COLDBROOK, NY

LOCATION.--Lat 42°00'51", long 74°16'16", Ulster County, Hydrologic Unit 02020006, on left bank at downstream side of bridge on Coldbrook Road, in Coldbrook, 0.3 mi downstream from Little Beaver Kill, 1.5 mi upstream from Ashokan Reservoir, and 2.5 mi south of Mount Tremper.

DRAINAGE AREA.--192 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 621.54 ft National Geodetic Vertical Datum of 1929. Prior to June 15, 1916, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are poor. Since 1924, water diverted from Schoharie Reservoir through Shandaken Tunnel (see Reservoirs in Hudson River Basin) enters Esopus Creek 10.5 mi (16.9 km) above station and is included in records of daily discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,300 ft<sup>3</sup>/s Mar. 21, 1980, gage height, 21.94 ft, from rating curve extended above 13,000 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 12.39 ft, 15.15 ft, and 20.70 ft; minimum daily, 8 ft<sup>3</sup>/s Oct. 14, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,100 ft<sup>3</sup>/s Mar. 19, gage height, 11.19 ft; minimum, 163 ft<sup>3</sup>/s Nov. 3, 4, gage height, 4.06 ft; minimum daily, 166 ft<sup>3</sup>/s Nov. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	249	189	414	539	948	1080	556	1420	847	344	272	260
2	241	172	409	523	970	1210	512	1420	700	335	276	249
3	238	166	404	501	5350	1250	792	1210	663	322	264	245
4	234	179	399	460	3230	1230	868	1130	1280	322	268	241
5	230	512	390	450	2110	1260	813	955	1090	362	268	238
6	227	344	390	464	1690	1270	746	799	948	357	268	234
7	227	288	376	449	1520	1730	739	688	806	419	256	230
8	227	264	362	433	1370	2100	993	620	528	399	253	227
9	227	249	348	414	1200	2480	1230	650	444	399	245	223
10	219	241	335	414	1190	2300	1950	539	390	390	241	219
11	216	234	335	1450	1180	2240	2540	474	469	376	280	216
12	212	230	322	1180	1170	2090	1730	433	419	371	335	216
13	212	385	290	1000	1160	1910	1340	390	385	357	474	219
14	219	385	280	950	1150	1790	1110	357	362	357	438	234
15	212	362	305	993	1220	1750	970	362	371	353	385	227
16	212	339	726	933	1180	1690	5670	419	438	348	284	280
17	205	326	813	868	1160	1650	3340	353	433	344	280	573
18	202	309	688	720	1150	1680	2240	330	404	344	288	562
19	195	301	638	670	1130	7320	1780	317	385	326	280	438
20	205	288	614	610	1110	3830	1690	357	371	288	276	268
21	209	284	573	580	1110	3700	1360	357	357	296	272	288
22	241	292	534	690	1130	3200	1250	344	344	292	268	344
23	234	399	512	1200	1140	2120	1270	568	335	288	264	284
24	227	380	501	1680	1120	1780	2530	469	330	288	260	276
25	223	376	528	1400	1110	1470	5590	419	322	288	256	264
26	216	371	602	1280	1090	1270	3210	474	317	280	256	256
27	212	371	568	1180	1050	1160	2290	970	317	276	253	253
28	205	357	579	1110	1080	1250	2160	746	550	272	253	245
29	202	399	585	1050	---	1060	1950	707	480	272	268	241
30	195	419	568	1020	---	700	1730	1000	357	268	272	238
31	192	---	550	985	---	608	---	963	---	264	276	---
TOTAL	6765	9411	14938	26196	40018	60178	54949	20240	15442	10197	8829	8288
MEAN	218	314	482	845	1429	1941	1832	653	515	329	285	276
MAX	249	512	813	1680	5350	7320	5670	1420	1280	419	474	573
MIN	192	166	280	414	948	608	512	317	317	264	241	216
CAL YR 1982	TOTAL	240507	MEAN	659	MAX	4950	MIN	166				
WTR YR 1983	TOTAL	275451	MEAN	755	MAX	7320	MIN	166				

## HUDSON RIVER BASIN

85

01364500 ESOPUS CREEK AT MOUNT MARION, NY

LOCATION.--Lat 42°02'16", long 73°58'21", Ulster County, Hydrologic Unit 02020006, on left bank at downstream side of bridge on Glasco Turnpike, 0.8 mi east of Mount Marion, 1.6 mi downstream from Plattekill Creek, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--419 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1970 to current year. Monthly discharge only May 1907 to March 1918, published in WSP 1302. Occasional miscellaneous measurements, 1951, 1956, 1966, 1967, 1969.

GAGE.--Water-stage recorder. Datum of gage is 40.16 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 12, 1970, nonrecording gage at same site (at different datum May 1907 to March 1908, and at present datum June 9, 1966 to Aug. 12, 1970).

REMARKS.--Records good except those for winter periods, which are poor. Flow from 256 mi<sup>2</sup> of drainage area regulated by Ashokan Reservoir since Sept. 9, 1913. Water diverted from Schoharie Creek through Shandaken Tunnel (see Reservoirs in Hudson River Basin) since Feb. 3, 1924, enters Esopus Creek about 12.2 mi above Ashokan Reservoir. Diversion from Plattekill Creek for water supply of village of Saugerties. Diversions upstream during summer months for irrigation purposes. Diversions for water supply of city of New York made from Ashokan Reservoir (see Reservoirs in Hudson River Basin). Discharge records for this station now represent the natural flow from 112 mi<sup>2</sup>, together with spillage during high stages from the upstream reservoirs.

AVERAGE DISCHARGE.--13 years (1971-83), 542 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 28,000 ft<sup>3</sup>/s Apr. 26, 1910, gage height, 25.10 ft, datum then in use; minimum, 9.7 ft<sup>3</sup>/s Sept. 16, 17, 1980, gage height, 11.79 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,620 ft<sup>3</sup>/s Apr. 17, gage height, 21.08 ft; minimum, 14 ft<sup>3</sup>/s Sept. 12, 13-16, 17, gage height, 11.85 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	25	93	150	293	340	523	2450	2390	290	40	42
2	36	24	91	139	288	400	453	2360	1820	200	56	39
3	32	25	87	131	3450	500	718	2060	1380	190	50	31
4	30	26	85	110	2670	463	1220	1820	1840	190	43	27
5	29	129	81	96	1350	429	1180	1550	2070	190	43	24
6	28	150	79	121	781	399	1070	1300	1750	190	44	22
7	28	111	76	127	500	781	950	1050	1860	135	51	19
8	30	91	71	129	400	1210	867	809	1540	114	59	18
9	31	77	67	113	340	1900	980	897	1140	102	47	18
10	32	68	62	104	300	1450	1720	701	790	94	40	18
11	33	61	61	759	270	1400	4330	530	534	86	50	16
12	32	58	59	770	260	1330	3980	446	435	81	96	14
13	31	85	51	508	250	1070	2820	389	361	75	91	14
14	38	118	50	354	240	762	1980	337	300	70	69	14
15	42	107	52	290	230	574	1480	303	243	65	57	14
16	36	98	175	240	230	496	3310	500	206	64	49	14
17	32	89	384	210	240	435	9030	481	187	59	43	14
18	31	81	272	190	260	399	6710	429	173	55	44	15
19	30	76	215	170	290	2100	4530	340	165	51	47	16
20	30	71	195	150	270	2380	4570	380	185	50	42	17
21	30	69	177	140	250	2070	3590	453	156	49	35	19
22	29	68	159	130	280	2790	2670	419	138	50	31	164
23	28	75	148	130	300	1620	2150	992	123	46	29	105
24	28	84	148	950	340	1100	2380	1030	112	43	28	69
25	27	79	165	850	360	762	5580	828	102	47	27	51
26	26	75	202	665	350	558	8210	668	95	47	26	42
27	26	76	202	496	330	485	6060	2290	101	45	24	37
28	26	74	198	400	320	1200	4160	2180	160	41	24	33
29	25	82	193	300	---	1250	3270	1770	700	39	40	30
30	25	91	177	260	---	1000	2850	2300	400	38	46	29
31	25	---	161	290	---	668	---	2790	---	39	44	---
TOTAL	950	2343	4236	9472	15442	32321	93341	34852	21456	2835	1415	985
MEAN	30.6	78.1	137	306	552	1043	3111	1124	715	91.5	45.6	32.8
MAX	44	150	384	950	3450	2790	9030	2790	2390	290	96	164
MIN	25	24	50	96	230	340	453	303	95	38	24	14
CAL YR 1982	TOTAL	124466	MEAN	341	MAX	6070	MIN	23				
WTR YR 1983	TOTAL	219648	MEAN	602	MAX	9030	MIN	14				

## HUDSON RIVER BASIN

01364960 RONDOUT CREEK AT PEEKAMOOSE, NY

LOCATION.--Lat 41°56'12", long 74°22'35", Ulster County, Hydrologic Unit 02020007, 300 ft upstream from private bridge, at Peekamoose, and 0.6 mi upstream from outlet of Peekamoose Lake.

DRAINAGE AREA.--5.5 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1983.

CHEMICAL DATA: 1983 (a).

MINOR ELEMENT DATA: 1983 (a).

ORGANIC DATA: OC--1983 (a)

REMARKS.--All cation analysis were performed on water samples which passed through a 0.1-micrometer membrane filter; while anion analysis were performed on water samples which passed through the standard 0.45-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 16...	1430	3.7	27	6.2	13.0	9	<.1	2.4	.8

DATE	AS NA)	SODIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)
AUG 16...	.7	.3	3.0	1.2	7.0	.7	.04	<.10	2.8	

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 16...	17	.36	.012	<.060	50	<3	18	1.0



## 01365000 RONDOUT CREEK NEAR LOWES CORNERS, NY

LOCATION.--Lat 41°52'00", long 74°29'12", Sullivan County, Hydrologic Unit 02020007, on left bank 100 ft downstream from small tributary, 350 ft upstream from bridge on county road, 1.1 mi upstream from Sugarloaf Brook, 1.1 mi east of Lowes Corners, and 1.9 mi southwest of Sundown.

DRAINAGE AREA.--38.5 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1937 to current year.

REVISED RECORDS.--WSP 1702: 1952.

GAGE.--Water-stage recorder. Datum of gage is 874.44 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 4, 1938, nonrecording gage at highway bridge 350 ft downstream at datum 847.00 ft NGVD (levels by Board of Water Supply, City of New York). Oct. 4, 1938 to July 5, 1951, water-stage recorder at site 1.2 mi downstream; Oct. 4, 1938 to July 3, 1949, datum 847.00 ft NGVD and July 4, 1949 to July 5, 1951, datum 846.00 ft NGVD (levels by Board of Water Supply, City of New York).

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--46 years, 98.1 ft<sup>3</sup>/s, 34.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 7,600 ft<sup>3</sup>/s July 22, 1938, from rating curve extended above 2,600 ft<sup>3</sup>/s; maximum gage height, 10.5 ft Mar. 21, 1980; minimum discharge, 3.3 ft<sup>3</sup>/s Sept. 16, 17, Oct. 17, 18, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	0930	1,470	5.35	Apr. 16	1130	*2,180	*6.11
Mar. 19	1200	1,610	5.51				

Minimum discharge, 5.4 ft<sup>3</sup>/s Sept. 30; minimum gage height, 2.27 ft, Sept. 15, 16, 20, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	92	88	71	44	144	218	266	56	20	11
2	13	13	87	88	74	49	133	225	208	54	30	9.9
3	13	13	78	85	928	111	188	195	174	50	16	8.6
4	12	20	78	78	555	102	201	202	334	49	14	8.6
5	12	121	71	74	323	94	185	171	222	49	14	8.0
6	12	55	71	74	236	102	175	159	205	45	14	8.0
7	12	39	61	67	190	100	178	145	243	42	13	8.0
8	13	35	55	58	150	256	194	148	176	39	12	7.4
9	13	33	52	41	125	280	201	156	159	37	11	7.4
10	13	31	46	44	110	293	336	135	148	36	11	6.9
11	12	29	49	116	98	319	389	125	140	34	24	6.9
12	12	29	46	87	92	301	280	120	133	32	58	6.9
13	13	94	39	82	89	268	229	114	123	30	34	6.9
14	23	67	39	82	89	211	198	107	116	27	17	6.9
15	16	55	41	84	90	211	185	138	114	27	13	6.9
16	15	49	163	84	87	201	1270	151	107	25	12	6.9
17	14	46	121	78	82	191	728	130	109	22	11	6.9
18	14	44	109	50	74	202	488	120	107	21	14	6.9
19	13	41	105	36	78	1380	366	118	94	21	13	6.9
20	13	39	102	35	67	686	320	154	88	22	11	6.9
21	14	39	98	34	61	682	262	143	81	32	9.9	32
22	14	41	94	34	64	571	247	143	69	27	9.2	49
23	13	85	90	149	74	360	266	266	64	20	9.2	13
24	13	60	94	126	74	264	638	186	58	24	9.2	9.2
25	13	52	102	96	67	211	800	168	54	24	8.6	8.0
26	13	49	105	90	58	182	535	168	52	18	8.6	7.4
27	13	49	96	87	52	166	371	212	49	16	9.9	6.9
28	13	46	96	85	41	215	312	174	212	15	9.9	6.9
29	13	105	100	82	---	194	262	225	107	15	21	6.9
30	13	98	94	78	---	166	258	376	67	15	17	6.3
31	13	---	92	74	---	152	---	352	---	14	12	---
TOTAL	416	1490	2566	2366	4099	8564	10339	5444	4079	938	486.5	298.4
MEAN	13.4	49.7	82.8	76.3	146	276	345	176	136	30.3	15.7	9.95
MAX	23	121	163	149	928	1380	1270	376	334	56	58	49
MIN	12	13	39	34	41	44	133	107	49	14	8.6	6.3
CFSM	.35	1.29	2.15	1.98	3.79	7.17	8.96	4.57	3.53	.79	.41	.26
IN.	.40	1.44	2.48	2.29	3.96	8.27	9.99	5.26	3.94	.91	.47	.29
CAL YR 1982	TOTAL	32435.0	MEAN	88.9	MAX	1190	MIN	11	CFSM	2.31	IN	31.34
WTR YR 1983	TOTAL	41085.9	MEAN	113	MAX	1380	MIN	6.3	CFSM	2.94	IN	39.70

## HUDSON RIVER BASIN

01365500 CHESTNUT CREEK AT GRAHAMSVILLE, NY

LOCATION.--Lat 41°50'42", long 74°32'27", Sullivan County, Hydrologic Unit 02020007, on right bank just downstream from bridge in Grahamsville, 600 ft downstream from Red Brook, and 0.6 mi upstream from bridge on State Highway 55.

DRAINAGE AREA.--20.9 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 880.96 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Slight seasonal regulation caused by Beaverdam Pond on Red Brook.

AVERAGE DISCHARGE.--45 years, 39.1 ft<sup>3</sup>/s, 25.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,640 ft<sup>3</sup>/s Oct. 15, 1955, gage height, 5.02 ft, from rating curve extended above 1,300 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 4.68 ft; minimum, 1.4 ft<sup>3</sup>/s Nov. 1, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	0745	726	2.33	Apr. 16	1300	*1,110	*2.70

Minimum discharge, 4.2 ft<sup>3</sup>/s Oct. 4, 7; minimum gage height, 0.49 ft Sept. 7, 11, 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	5.2	20	23	29	29	59	75	106	30	8.3	9.3
2	5.6	5.2	17	21	39	57	53	87	80	23	9.3	6.8
3	5.2	4.8	15	19	383	55	106	78	59	20	7.8	8.3
4	4.8	12	15	17	162	47	101	82	195	23	7.3	6.8
5	4.5	34	14	18	89	51	80	63	108	20	7.3	6.0
6	4.5	14	14	21	56	47	66	51	96	18	6.8	5.6
7	4.5	11	13	20	48	94	61	47	111	15	6.0	5.6
8	4.8	9.3	12	19	43	103	70	51	75	15	5.6	5.2
9	6.4	8.3	12	17	38	106	70	55	59	14	5.6	5.2
10	5.6	8.3	11	17	35	111	169	44	49	12	5.2	4.8
11	5.2	7.8	11	89	32	125	146	37	40	12	12	4.8
12	4.8	7.8	10	44	30	108	103	31	34	12	30	5.2
13	6.0	23	9.6	24	29	87	82	31	29	11	15	5.6
14	8.3	14	10	22	28	75	70	29	25	11	9.3	5.6
15	6.4	11	12	20	28	68	68	59	26	12	7.3	4.8
16	5.6	9.9	57	22	28	59	647	82	33	12	6.8	4.8
17	5.6	9.3	36	18	28	51	301	55	31	9.9	6.0	6.0
18	5.2	8.8	23	16	29	57	169	40	36	9.9	8.3	5.6
19	5.2	8.8	20	15	28	291	134	36	29	9.3	6.8	5.2
20	4.8	8.3	19	15	26	169	140	51	28	9.9	5.6	4.8
21	5.6	8.3	18	16	30	239	128	44	29	11	5.2	26
22	5.2	11	17	16	36	187	119	47	22	9.9	5.6	22
23	5.2	20	18	106	39	119	111	137	19	8.3	5.6	12
24	4.8	15	22	119	36	94	140	70	17	13	5.2	9.3
25	4.8	13	34	78	31	75	202	55	15	12	4.8	7.8
26	4.8	12	51	57	28	61	143	53	14	9.9	12	7.3
27	4.8	12	36	44	25	61	116	87	16	9.3	14	6.8
28	4.8	12	36	37	26	125	96	63	162	8.3	7.8	6.0
29	4.8	33	39	33	---	103	78	106	82	8.3	13	6.0
30	4.8	25	31	30	---	78	91	183	39	7.8	9.9	6.8
31	4.8	---	26	29	---	66	---	137	---	7.8	7.8	---
TOTAL	163.8	382.1	678.6	1042	1459	2998	3919	2066	1664	404.6	267.2	226.0
MEAN	5.28	12.7	21.9	33.6	52.1	96.7	131	66.6	55.5	13.1	8.62	7.53
MAX	8.3	34	57	119	383	291	647	183	195	30	30	26
MIN	4.5	4.8	9.6	15	25	29	53	29	14	7.8	4.8	4.8
CFSM	.25	.61	1.05	1.61	2.49	4.63	6.27	3.19	2.66	.63	.41	.36
IN.	.29	.68	1.21	1.85	2.60	5.34	6.98	3.68	2.96	.72	.48	.40
CAL YR 1982	TOTAL	12622.9	MEAN	34.6	MAX	329	MIN	4.2	CFSM	1.66	IN	22.47
WTR YR 1983	TOTAL	15270.3	MEAN	41.8	MAX	647	MIN	4.5	CFSM	2.00	IN	27.18

## HUDSON RIVER BASIN

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01367500 RONDOUT CREEK AT ROSENDALE, NY

LOCATION.--Lat 41°50'35", long 74°05'11", Ulster County, Hydrologic Unit 02020007, on left bank 30 ft upstream from bridge on James Street in Rosendale, and 3 mi upstream from Wallkill River.

DRAINAGE AREA.--386 mi<sup>2</sup> (see REMARKS below).

PERIOD OF RECORD.--July 1901 to November 1903, October 1905 to January 1919, August 1926 to current year. Monthly discharge only for some periods, published in WSP 1302, and WRD NY 1970.

REVISED RECORDS.--WSP 641: Drainage Area. WSP 756: 1933.

GAGE.--Water-stage recorder. Datum of gage is 32.83 ft National Geodetic Vertical Datum of 1929. Prior to January 1919, nonrecording gage at site 150 ft downstream at datum 38.83 ft NGVD. Aug. 3, 1926 to Sept. 10, 1969, at present site at datum 42.83 ft NGVD. Sept. 11, 1969 to Feb. 3, 1970, water-stage recorder, and June 9, 1970 to Jan. 18, 1971, nonrecording gage at site 0.2 mi upstream at datum 44.03 ft NGVD.

REMARKS.--Records fair except those for winter periods, which are poor. Occasional regulation from hydroelectric plant upstream from station. Diversion from Rondout Creek through the emergency connection to the Delaware Aqueduct at Lackawack for New York City water supply during period April 1944 to May 1951. Since October 1950, flow regulated by Rondout Reservoir (see Reservoirs in Hudson River Basin). Subsequent to May 1951, entire flow except for period of spilling, diverted from Rondout Reservoir for New York City water supply. Discharge records for this station now represent the natural flow from 272 mi<sup>2</sup>, together with spillage during high flow from Rondout Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,800 ft<sup>3</sup>/s Oct. 16, 1955, gage height, 26.8 ft, datum then in use, from floodmarks, from rating curve extended above 15,000 ft<sup>3</sup>/s on basis of contracted-opening measurement at gage height 33.93 ft; minimum, 2.2 ft<sup>3</sup>/s July 16, 1965; minimum daily, 3.0 ft<sup>3</sup>/s July 16, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,800 ft<sup>3</sup>/s, Apr. 16, gage height, 18.40 ft; minimum discharge, 50 ft<sup>3</sup>/s Sept. 21; minimum gage height, 8.85 ft Sept. 16, 17, 21; minimum daily discharge, 51 ft<sup>3</sup>/s Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	77	221	263	458	548	897	967	1710	255	73	105
2	138	79	200	232	452	1320	759	1270	1170	186	75	100
3	130	75	180	210	5340	1650	2010	1000	880	173	87	87
4	122	75	170	200	3570	1330	2110	1060	2300	173	73	73
5	100	324	164	190	1930	1270	1380	838	1760	173	68	70
6	96	348	158	232	1250	1210	1040	655	1220	173	73	68
7	94	217	158	232	700	2130	880	561	2260	173	91	66
8	96	170	143	217	620	2500	914	505	1370	170	83	61
9	117	149	138	200	560	3290	1200	641	905	158	71	59
10	125	130	127	186	540	2450	2690	529	662	125	64	59
11	114	117	120	1370	520	2610	4040	447	535	122	71	58
12	105	107	110	1000	500	2340	2230	425	447	127	122	56
13	103	186	110	634	500	1820	1550	382	377	100	214	56
14	114	293	100	464	500	1350	1130	348	329	91	135	56
15	127	217	100	400	660	1120	931	408	276	89	100	56
16	119	180	324	350	587	985	6680	1800	251	89	85	53
17	112	164	766	320	523	880	8410	1450	297	89	81	54
18	105	152	408	300	548	830	3440	914	280	85	79	54
19	103	138	302	290	574	7810	2590	713	272	83	83	53
20	98	135	260	280	535	4340	4030	774	244	83	83	51
21	112	130	240	280	493	3860	2810	728	225	89	75	61
22	94	127	230	280	580	4450	2240	567	200	96	70	236
23	87	138	221	600	634	2500	2040	1450	180	87	70	203
24	83	158	244	2200	691	1760	3060	1120	173	103	66	143
25	83	146	362	1500	669	1320	6120	806	164	149	66	117
26	85	135	469	950	607	931	4010	830	170	110	66	107
27	98	132	435	700	517	790	2410	3120	170	91	77	96
28	89	130	382	580	523	2530	1750	2140	284	83	85	89
29	79	170	372	500	---	2010	1260	1450	774	77	105	79
30	77	251	343	450	---	1340	1110	2520	398	73	107	68
31	77	---	302	447	---	1050	---	2830	---	71	91	---
TOTAL	3231	4850	7859	16057	25581	64324	75721	33248	20283	3746	2689	2494
MEAN	104	162	254	518	914	2075	2524	1073	676	121	86.7	83.1
MAX	149	348	766	2200	5340	7810	8410	3120	2300	255	214	236
MIN	77	75	100	186	452	548	759	348	164	71	64	51
CAL YR 1982	TOTAL	206406	MEAN	565	MAX	6140	MIN	59				
WTR YR 1983	TOTAL	260083	MEAN	713	MAX	8410	MIN	51				

## HUDSON RIVER BASIN

01371500 WALLKILL RIVER AT GARDINER, NY

LOCATION.--Lat 41°41'10", long 74°09'56", Ulster County, Hydrologic Unit 02020007, on left bank 400 ft upstream from bridge on U.S. Highway 44, 500 ft downstream from Shawangunk Kill, and 0.7 mi northwest of Gardiner.

DRAINAGE AREA.--711 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1924 to current year.

REVISED RECORDS.--WSP 756: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 185.70 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--59 years, 1,056 ft<sup>3</sup>/s, 20.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,800 ft<sup>3</sup>/s Oct. 16, 1955, gage height, 19.81 ft; minimum, 9.5 ft<sup>3</sup>/s Sept. 28, 1964; minimum gage height, 1.59 ft Aug. 14, 15, 16, 19, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 6,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 19	1730	8,940	9.04	Apr. 17	0200	*13,400	*11.55
Mar. 21	2300	8,510	9.05	Apr. 20	0500	10,300	10.00
Apr. 11	0230	9,010	9.33	Apr. 25	1830	10,400	10.09

Minimum discharge, 64 ft<sup>3</sup>/s, Sept.12, gage height, 1.97 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247	167	657	490	1100	1590	2380	2620	2330	586	154	157
2	212	164	549	440	1200	2770	1910	2290	1870	479	164	139
3	187	157	490	400	4730	4230	3270	2040	1470	440	154	122
4	170	154	451	370	4590	3650	4300	1860	3830	383	154	111
5	160	358	435	350	3480	3230	3270	1640	3490	325	108	100
6	151	618	413	451	2100	2610	2610	1420	2290	289	184	95
7	145	574	408	580	1600	3440	2110	1240	3750	284	247	91
8	145	445	383	586	1400	4050	2170	1100	2530	263	198	84
9	151	373	353	507	1200	5130	3380	1190	1900	243	157	79
10	180	320	316	456	1100	4350	5050	1090	1470	224	133	75
11	191	289	298	2040	1100	4690	8030	952	1160	212	133	68
12	187	272	276	2120	1100	4960	5930	858	960	198	180	66
13	180	440	255	1460	1100	4600	4890	790	820	187	383	66
14	184	952	230	1030	1100	3800	4230	733	719	180	353	71
15	191	858	220	800	1100	3080	3490	691	644	174	276	77
16	187	698	435	670	1100	2370	6820	797	599	164	212	75
17	180	561	1180	620	1100	1910	11600	1430	561	160	177	75
18	170	479	1040	580	1100	1760	8100	1330	605	157	160	73
19	160	435	740	560	1200	7120	7970	1030	586	151	151	75
20	157	403	580	540	1300	6550	9670	896	543	113	136	75
21	160	383	531	520	1500	6450	8000	865	519	108	130	81
22	157	368	502	540	1800	7400	6470	812	496	124	122	220
23	154	363	479	740	2070	5790	5400	2460	445	306	113	306
24	148	353	507	3500	1990	5030	5600	2700	403	393	103	255
25	145	334	691	3300	1930	4420	9010	1900	348	329	98	170
26	157	320	835	2400	1830	3570	8420	1520	311	268	93	127
27	174	302	768	1800	1500	2720	6370	5250	293	227	106	108
28	201	293	671	1500	1480	4890	5360	4260	440	194	95	98
29	198	403	651	1300	---	4440	4580	2720	827	164	151	93
30	184	664	618	1200	---	3670	3600	3560	812	160	220	100
31	170	---	549	1100	---	3020	---	3750	---	157	177	---
TOTAL	5383	12500	16511	32950	47900	127290	163990	55794	37021	7642	5222	3332
MEAN	174	417	533	1063	1711	4106	5466	1800	1234	247	168	111
MAX	247	952	1180	3500	4730	7400	11600	5250	3830	586	383	306
MIN	145	154	220	350	1100	1590	1910	691	293	108	93	66
CFSM	.25	.59	.75	1.50	2.41	5.78	7.69	2.53	1.74	.35	.24	.16
IN.	.28	.65	.86	1.72	2.51	6.66	8.58	2.92	1.94	.40	.27	.17
CAL YR 1982	TOTAL	360566	MEAN	988	MAX	7600	MIN	103	CFSM	1.39	IN	18.87
WTR YR 1983	TOTAL	515535	MEAN	1412	MAX	11600	MIN	66	CFSM	1.99	IN	26.97



## 01372500 WAPPINGER CREEK NEAR WAPPINGERS FALLS, NY

LOCATION.--Lat 41°39'11", long 73°52'23", Dutchess County, Hydrologic Unit 02020008, on left bank 700 ft downstream from Red Oak Mill dam, and 4.5 mi northeast of village of Wappingers Falls.

DRAINAGE AREA.--181 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1903 to June 1905 (gage heights only during some winter months), August 1928 to current year.

REVISED RECORDS.--WSP 741: 1932. WSP 1902: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 114.37 ft National Geodetic Vertical Datum of 1929, (levels by Corps of Engineers). May 1903 to June 1905 staff gage at site 2.5 mi downstream at different datum. Aug. 7, 1928 to Sept. 25, 1931, water-stage recorder at site 2 mi downstream at different datum.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--55 years (1929-83), 253 ft<sup>3</sup>/s, 18.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 19.60 ft, from floodmarks in gage shelter, from rating curve extended above 5,000 ft<sup>3</sup>/s on basis of flow-over-dam and contracted-opening measurement at gage height 18.02 ft and contracted-opening and flow-over-road measurement at gage height 19.60 ft; minimum, 0.90 ft<sup>3</sup>/s Sept. 20, 21, 1964, gage height, 2.05 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges at and above base of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0830	1,500	5.90	Apr. 21	0300	2,030	6.62
Mar. 22	0445	1,700	6.17	Apr. 26	0130	*2,400	*7.09
Apr. 11	0730	1,550	5.96				

Minimum discharge, 10 ft<sup>3</sup>/s Sept. 12, 13, 20, gage height, 2.41 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	26	69	81	282	360	586	840	775	156	37	26
2	20	26	65	76	257	761	523	775	635	134	33	24
3	19	25	61	73	551	1070	598	706	534	118	33	21
4	18	25	59	63	796	905	699	680	796	102	33	20
5	18	51	57	64	598	840	574	647	846	130	60	17
6	18	94	54	104	449	754	501	545	641	355	73	17
7	17	69	52	125	370	872	464	475	796	186	60	15
8	19	56	50	112	320	1010	480	429	699	132	51	14
9	35	47	44	99	300	1410	540	545	551	111	42	14
10	48	42	41	89	290	1230	629	480	459	97	34	13
11	36	40	44	223	280	1380	1420	415	391	83	32	13
12	30	37	36	290	280	1330	1130	377	342	78	46	11
13	29	168	31	219	280	1290	911	342	301	73	63	11
14	39	200	36	150	280	1210	761	313	267	67	58	11
15	43	132	40	130	326	1090	660	301	239	60	47	11
16	37	102	62	120	294	979	859	551	216	67	40	13
17	33	86	152	120	286	878	1770	654	223	69	34	11
18	30	76	104	100	334	782	1740	512	204	60	34	12
19	27	68	94	100	338	905	1490	429	180	55	33	12
20	27	67	88	100	297	1110	1850	400	163	50	33	11
21	27	64	82	100	286	1090	1910	396	154	52	28	12
22	27	59	80	100	301	1600	1600	364	138	52	25	38
23	28	59	78	100	334	1310	1350	545	125	48	27	37
24	26	55	83	410	377	1050	1320	545	116	55	34	26
25	24	52	99	469	396	885	2070	439	106	58	29	21
26	26	48	109	419	391	761	2100	391	96	51	23	18
27	30	51	107	300	347	680	1590	1040	93	44	20	16
28	34	51	99	250	347	1040	1260	1030	180	39	19	16
29	29	67	99	220	---	938	1050	833	377	36	20	13
30	28	78	93	200	---	747	938	789	216	35	21	16
31	26	---	85	275	---	647	---	885	---	37	25	---
TOTAL	869	2021	2253	5281	9987	30914	33373	17673	10859	2690	1147	510
MEAN	28.0	67.4	72.7	170	357	997	1112	570	362	86.8	37.0	17.0
MAX	48	200	152	469	796	1600	2100	1040	846	355	73	38
MIN	17	25	31	63	257	360	464	301	93	35	19	11
CFSM	.16	.37	.40	.94	1.97	5.51	6.14	3.15	2.00	.48	.20	.09
IN.	.18	.42	.46	1.09	2.05	6.35	6.86	3.63	2.23	.55	.24	.10
CAL YR 1982	TOTAL	94330	MEAN 258	MAX 2500	MIN 17	CFSM 1.43	IN 19.39					
WTR YR 1983	TOTAL	117577	MEAN 322	MAX 2100	MIN 11	CFSM 1.78	IN 24.16					

## HUDSON RIVER BASIN

01375000 CROTON RIVER AT NEW CROTON DAM, NEAR CROTON-ON-HUDSON, NY

LOCATION.--Lat 41°13'32", long 73°51'32", Westchester County, Hydrologic Unit 02030101, on left bank 1,000 ft downstream from New Croton Dam, and 1.8 mi northeast of Croton-On-Hudson.

DRAINAGE AREA.--378 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1933 to current year. Prior to Oct. 1, 1941, published as "at Quaker Bridge," (low-flow records at this site are not equivalent owing to well pumpage upstream). Fragmentary records published during August 1933 to September 1941 for "at Cornell Dam near Croton" and "at New Croton near Croton" are equivalent. Oct. 1, 1941 to Sept. 30, 1955 published as "at New Croton Dam near Croton".

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 50 ft, from topographic map. Prior to Oct. 1, 1941, supplementary water-stage recorder and concrete control at site 1.1 mi downstream at Quaker Bridge.

REMARKS.--Records poor. Entire flow, except for periods of spilling and releases to augment Croton-on-Hudson water supply, diverted from New Croton Reservoir for municipal supply of City of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,400 ft<sup>3</sup>/s Oct. 16, 1955, gage height, 18.44 ft, from floodmarks, from rating curve extended above 9,700 ft<sup>3</sup>/s on basis of slope-area measurements of peak flow; minimum daily, 0.1 ft<sup>3</sup>/s Mar. 14, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,810 ft<sup>3</sup>/s Apr. 25, gage height, 7.53 ft; minimum, 0.86 ft<sup>3</sup>/s Nov. 3, gage height, 0.45 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	.92	9.1	8.1	4.6	6.8	1310	1480	971	240	5.9	6.6
2	30	.92	9.1	8.3	4.7	8.9	1120	1320	729	185	5.7	6.6
3	7.1	2.6	8.9	8.3	7.1	130	1500	1210	612	147	5.7	6.6
4	7.5	8.9	8.9	8.3	5.7	800	1680	1170	1240	110	5.7	6.6
5	12	10	8.3	8.6	5.3	892	1430	1050	1540	110	5.7	6.6
6	15	10	8.3	9.1	5.3	729	1240	915	1160	133	5.7	6.6
7	24	10	8.1	8.9	5.3	900	1150	779	1020	133	5.7	6.4
8	17	10	7.8	8.9	5.1	1110	1490	688	823	113	5.9	6.4
9	87	10	8.3	8.9	5.1	1410	1590	668	576	94	5.9	6.1
10	30	10	9.4	8.1	5.1	1290	2190	542	414	67	5.9	5.9
11	2.9	10	9.4	9.4	5.1	1430	3750	442	333	33	6.1	5.7
12	2.0	10	9.4	10	5.1	1560	2790	442	278	25	5.9	5.9
13	5.7	12	9.4	10	5.1	1390	2240	442	216	23	5.5	5.7
14	57	10	9.1	10	5.1	1170	1810	414	154	9.4	6.4	5.5
15	61	10	9.4	10	5.1	1010	1550	435	121	5.3	7.8	5.5
16	50	10	9.7	10	5.1	853	1940	739	110	5.3	7.5	5.5
17	32	10	9.4	10	5.3	708	4020	757	94	5.3	7.3	5.3
18	22	10	8.9	10	5.5	853	3110	576	92	5.3	7.1	5.3
19	13	9.7	8.3	10	5.3	3830	3060	464	133	13	7.1	5.3
20	11	9.7	8.1	10	5.3	3810	3880	464	137	6.4	7.3	5.1
21	14	9.7	8.1	10	5.3	3570	3060	471	99	7.8	7.1	5.3
22	7.8	9.4	8.1	10	5.3	3790	2500	421	60	6.6	7.1	5.3
23	3.3	9.4	8.1	12	5.5	2680	2200	708	37	6.6	7.1	4.9
24	6.1	9.4	8.3	12	5.5	2100	3070	688	70	6.6	7.1	4.9
25	12	9.4	8.1	11	5.5	1760	5410	478	90	6.4	7.1	4.6
26	11	9.4	8.1	11	5.3	1440	4790	394	85	6.8	6.8	3.9
27	2.2	9.4	8.1	9.7	5.5	1340	3630	678	79	7.8	6.6	4.1
28	5.7	9.1	8.1	6.4	5.9	2540	2780	668	225	7.8	6.6	4.2
29	4.1	9.7	8.1	6.1	---	2180	2100	525	333	7.8	6.8	2.7
30	1.4	9.1	8.1	5.7	---	1700	1690	838	306	7.3	6.6	2.9
31	.92	---	8.1	4.9	---	1490	---	1370	---	5.7	6.6	---
TOTAL	586.72	268.74	266.6	283.7	149.1	48480.7	74080	22236	12137	1540.2	201.3	162.0
MEAN	18.9	8.96	8.60	9.15	5.33	1564	2469	717	405	49.7	6.49	5.40
MAX	87	12	9.7	12	7.1	3830	5410	1480	1540	240	7.8	6.6
MIN	.92	.92	7.8	4.9	4.6	6.8	1120	394	37	5.3	5.5	2.7
CAL YR 1982	TOTAL	97812.93	MEAN	268	MAX	2200	MIN	.72				
WTR YR 1983	TOTAL	160392.06	MEAN	439	MAX	5410	MIN	.92				

01376500 SAW MILL RIVER AT YONKERS, NY

LOCATION.--Lat 40°56'11", long 73°53'12", Westchester County, Hydrologic Unit 02030101, on right bank in Yonkers, just upstream from Old Croton aqueduct, near intersection of Nepperhan Avenue and Center Street, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--25.6 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1943 to September 1973, April 1974 to current year.

REVISED RECORDS.--WDR NY-71-1: 1965, 1966.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 90 ft, from topographic map. Prior to Aug. 17, 1978, water-stage recorder and concrete control at same site but at different datum. Aug. 17, 1978 to Sept. 9, 1980, nonrecording and crest-stage gage, and Sept. 10, 1980 to Sept. 30, 1982, water-stage recorder and crest-stage gage at site 1,300 ft downstream at different datum.

REMARKS.--Records good. Flow affected by diversion by city of Yonkers, village of Tarrytown, and several industries for water supply and industrial purposes. Diurnal fluctuations caused by water supply and industrial operations.

COOPERATION.--Figures for diversion and return in upstream water supply furnished by city of Yonkers and village of Tarrytown.

AVERAGE DISCHARGE.--38 years (1945-73, 1975-83), 32.7 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft<sup>3</sup>/s Sept. 27, 1975, gage height, 7.26 ft; minimum, no flow during part of several days in Oct., Nov., and June-Sept. of 1981 water year because of construction in channel upstream from gage; minimum daily, 0.11 ft<sup>3</sup>/s Sept. 14, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 615 ft<sup>3</sup>/s Apr. 10, gage height, 4.88 ft; minimum, 1.00 ft<sup>3</sup>/s, Nov. 1, gage height, 1.16 ft; minimum daily, 3.5 ft<sup>3</sup>/s Oct. 17, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	4.5	14	8.2	26	51	86	93	49	15	22	6.7
2	4.9	5.3	12	8.2	25	158	77	87	36	12	77	6.2
3	5.1	4.3	9.8	8.2	140	80	251	80	31	12	13	5.8
4	4.5	4.3	9.8	7.9	64	58	151	90	142	10	8.7	5.5
5	4.7	29	9.5	14	41	55	98	72	90	59	7.9	5.3
6	4.5	11	10	59	35	47	87	61	54	43	7.4	5.5
7	4.3	6.4	9.5	20	36	81	81	54	44	13	7.2	5.5
8	4.1	5.5	8.4	13	35	90	125	52	37	11	6.4	4.9
9	16	5.3	7.9	10	29	104	228	54	33	9.8	6.2	5.1
10	8.2	4.9	6.9	21	25	102	326	46	29	9.0	5.8	5.5
11	4.7	4.9	7.7	185	20	116	428	43	28	8.4	43	5.1
12	4.9	5.1	9.5	52	20	153	176	40	26	8.2	92	7.4
13	6.2	135	9.0	28	20	95	134	38	22	8.4	19	7.9
14	6.2	37	9.5	21	20	76	116	36	21	8.4	9.2	6.9
15	4.5	15	8.7	22	22	71	105	40	22	12	8.2	5.3
16	3.7	9.8	47	23	26	62	340	51	20	21	7.9	4.9
17	3.5	9.0	41	17	36	56	483	61	18	8.2	6.9	5.1
18	3.7	8.4	15	14	50	115	182	37	16	7.7	7.9	5.5
19	4.1	7.9	13	13	45	495	217	34	17	12	7.2	5.3
20	3.5	7.4	11	14	37	234	268	45	16	17	6.7	6.9
21	5.3	7.4	11	14	37	243	151	47	17	32	5.5	18
22	4.5	7.4	9.8	14	43	296	125	37	16	32	5.3	58
23	3.9	7.4	9.5	76	47	145	111	91	16	8.2	7.2	8.4
24	3.9	7.9	11	101	49	116	257	55	14	16	6.4	6.2
25	11	6.9	11	36	43	101	426	36	13	11	5.5	5.1
26	29	6.9	11	27	39	88	249	38	13	7.9	5.5	4.9
27	8.7	6.9	9.8	22	35	119	163	72	13	7.2	4.9	4.5
28	5.8	8.2	9.5	21	35	393	134	41	54	7.2	79	4.9
29	5.1	68	9.2	20	---	150	116	41	51	6.4	43	4.3
30	4.7	22	8.7	25	---	107	105	108	17	6.2	16	49
31	4.7	---	8.2	46	---	95	---	101	---	6.4	7.7	---
TOTAL	193.4	469.0	377.9	960.5	1080	4152	5796	1781	975	445.6	555.6	279.6
MEAN	6.24	15.6	12.2	31.0	38.6	134	193	57.5	32.5	14.4	17.9	9.32
MAX	29	135	47	185	140	495	483	108	142	59	92	58
MIN	3.5	4.3	6.9	7.9	20	47	77	34	13	6.2	4.9	4.3
#	1.2	.93	1.1	.85	1.2	1.4	1.4	1.0	1.4	1.0	1.2	1.2
CAL YR 1982	TOTAL	9808.67	MEAN	26.9	MAX	260	MIN	.75	#	4.5		
WTR YR 1983	TOTAL	17065.60	MEAN	4.8	MAX	495	MIN	3.5	#	1.2		

# Indicated net diversion, in cubic feet per second, for diversion and return in upstream supply.

## HUDSON RIVER BASIN

## RESERVOIRS IN HUDSON RIVER BASIN

01335900 DELTA RESERVOIR.--Lat 43°16'20", long 75°25'50", Oneida County, Hydrologic Unit 02020004, on superstructure of gatehouse at Delta Dam on Mohawk River, and 4 mi upstream from Rome. DRAINAGE AREA, 145 mi<sup>2</sup>. PERIOD OF RECORD, May 1913 to current year. GAGE, nonrecording gage read daily at 0800. Datum of gage is Barge Canal datum.

Dam completed Aug. 3, 1912, and controlled storage for which records are available began May 1, 1913. Usable capacity 2,800 mil ft<sup>3</sup> at crest of spillway, elevation 550.0 ft. Reservoir is used for navigation in Barge Canal. Records furnished by New York State Department of Transportation.

EXTREMES FOR PERIOD OF RECORD (1951-83): Maximum contents observed, 3,136 mil ft<sup>3</sup> June 22, 1972, elevation, 552.8 ft; minimum observed, 2.0 mil ft<sup>3</sup> Jan. 10, 13, 16-21, Feb. 7-15, Feb. 22 to Mar. 2, 1959, elevation, 492.0 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 3,088 mil ft<sup>3</sup> Apr. 16, elevation, 552.4 ft; minimum observed, 824 mil ft<sup>3</sup> Nov. 20, elevation, 527.4 ft.

01343900 HINCKLEY RESERVOIR.--Lat 43°18'45", long 75°06'25", Oneida County, Hydrologic Unit 02020004, on south side of north gatehouse at Hinckley Dam on West Canada Creek at Hinckley, and 2.2 mi east of Prospect. DRAINAGE AREA, 374 mi<sup>2</sup>. PERIOD OF RECORD, March 1914 to current year. GAGE, nonrecording gage read daily at 0800. Datum of gage is Barge Canal datum.

Reservoir is formed by earth and concrete dam; storage began March 1914. Usable capacity 3,320 mil ft<sup>3</sup> between elevation 1,173.5 and 1,225.0 ft. Elevation of inverts of four 60-inch discharge pipes at north end of spillway is 1,169.5 ft, and elevation of inverts of two 42-inch pipes at south end for diverting water to city of Utica is 1,164.25 ft. Crest of Ogee spillway is at elevation 1,225.0 ft. Length of spillway is 400 ft. Area of water surface at crest elevation is 4.46 mi<sup>2</sup>. Records furnished by New York State Department of Transportation.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 4,041 mil ft<sup>3</sup> Oct. 2, 1945, elevation, 1,230.2 ft; minimum observed (after initial filling), not determined.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 3,666 mil ft<sup>3</sup> May 3, elevation, 1,227.6 ft; minimum observed, 967 mil ft<sup>3</sup> Nov. 2, elevation, 1,198.0 ft.

01350100 SCHOHARIE RESERVOIR (see station for mean daily elevations, skeleton capacity table, monthly contents and change in contents).

01363400 ASHOKAN RESERVOIR.--Lat 41°57'01", long 74°12'30", Ulster County, Hydrologic Unit 02020006, at gatehouse located at Dividing Weir Dyke, and 1.6 mi south of Shokan. DRAINAGE AREA, 256 mi<sup>2</sup>. PERIOD OF RECORD, September 1913 to current year. REVISED RECORDS, WDR NY-72-1: 1968. 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).

The reservoir is formed by the masonry Olive Bridge Dam across Esopus Creek and a series of earth embankments between hills. The reservoir is divided into two basins separated by a weir containing a gatehouse. Storage began Sept. 9, 1913. Usable capacity of West basin 47,180 mil gal between minimum operating level elevation 495.50 ft and crest of spillway to East basin, elevation 590.00 ft; dead storage below minimum operating level 2,237 mil gal. Usable capacity of East basin 80,678 mil gal between elevation 500.00 ft and crest of spillway, elevation 587.10 ft; no dead storage. Figures given herein represent total contents for each basin. Reservoir impounds water for diversion into Catskill Aqueduct for New York City water supply (see elsewhere in this section). Any flood spillage enters the Esopus Creek channel below Olive Bridge Dam. Records furnished by Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, in West basin, 54,001 mil gal Mar. 31, 1951, elevation, 594.33 ft, in East basin, 89,411 mil gal Mar. 31, 1951, elevation, 592.23 ft; minimum observed, in West basin, 9,098 mil gal Oct. 24, 1926, elevation, 530.56 ft, in East basin, 8,394 mil gal Oct. 24, 1926, elevation, 525.91 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, in West basin, 50,847 mil gal Apr. 17, elevation, 591.35 ft, in East basin, 83,597 mil gal Apr. 17, elevation, 588.84 ft; minimum observed, in West basin, 29,140 mil gal Dec. 16, elevation, 567.14 ft, in East basin, 46,260 mil gal Jan. 19, elevation, 564.07 ft.

REVISIONS: The maximum and minimum contents observed in West Basin for the water year 1982 have been revised to 51,355 mil gal June 7, elevation, 591.83 ft and 36,555 mil gal Oct. 26, elevation, 576.28 ft. They supersede figures published in the report for 1982.

01366400 RONDOUT RESERVOIR.--Lat 41°47'57", long 74°25'48", Ulster County, Hydrologic Unit 02020007, at release chamber at Merriman Dam on Rondout Creek, 1.1 mi upstream from Brandy Brook, and 1.3 mi northwest of Lackawack. DRAINAGE AREA, 94.4 mi<sup>2</sup>. PERIOD OF RECORD, May 1951 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 May 10, 1951. Initial filling (to crest of spillway) Mar. 28, 1955. Usable capacity 50,048 mil gal between minimum operating level, elevation, 720.00 ft and crest of spillway, elevation, 840.00 ft. Dead storage below elevation 720.00 ft, 2,387 mil gal. Figures given herein represent total contents. Reservoir impounds water from Rondout Creek; water diverted from Cannonsville Reservoir in the Delaware River basin through West Delaware Tunnel; water diverted from Pepacton Reservoir through East Delaware Tunnel; and water diverted from Neversink Reservoir through Neversink-Grahamsville Tunnel. Water is diverted from Rondout Reservoir for New York City water supply through West Branch Tunnel of Delaware Aqueduct (see elsewhere in this section). Records furnished by Bureau of Water Resources Development, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 53,355 mil gal June 23, 1972, elevation, 841.34 ft; minimum observed (after initial filling), 8,335 mil gal Oct. 15, 1957, elevation, 748.75 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 52,579 mil gal May 31, elevation, 840.21 ft; minimum, 29,718 mil gal Oct. 25, elevation, 802.01 ft.



## HUDSON RIVER BASIN

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## RESERVOIRS IN HUDSON RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
	01335900 Delta Reservoir #			01343900 Hinckley Reservoir #		
Sept. 30	532.3	1,131		1,203.2	1,312	
Oct. 31	528.5	890	- 90.0	1,198.2	980	-124
Nov. 30	533.0	1,180	+112	1,213.8	2,154	+453
Dec. 31	542.8	2,020	+314	1,222.4	3,016	+322
CAL YR 1982	-	-	- 15.7	-	-	+ 28.7
Jan. 31	542.8	2,020	0	1,214.1	2,181	-312
Feb. 28	546.1	2,361	+141	1,208.9	1,742	-181
Mar. 31	550.1	2,812	+168	1,211.6	1,962	+ 82.1
Apr. 30	551.1	2,932	+ 46.3	1,227.0	3,585	+626
May 31	550.6	2,872	- 22.4	1,225.4	3,372	- 79.5
June 30	548.1	2,581	-112	1,221.4	2,904	-181
July 31	546.4	2,394	- 69.8	1,213.2	2,102	-299
Aug. 31	541.1	1,850	-203	1,213.3	2,111	+ 3.36
Sept. 30	537.2	1,506	-133	1,209.7	1,806	-118
WTR YR 1983	-	-	+ 11.9	-	-	+191

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
	01363398 Ashokan Reservoir ** West Basin			01363399 Ashokan Reservoir ** East Basin			01366400 Rondout Reservoir **		
Sept. 30	579.48	39,346		577.16	64,706		812.97	35,568	
Oct. 31	573.83	34,479	-243	573.26	58,870	- 291	805.47	31,502	-203
Nov. 30	569.68	31,092	-175	569.33	53,274	- 289	820.77	40,109	+444
Dec. 31	568.42	30,124	- 48.3	564.84	47,244	- 301	825.52	43,011	+145
CAL YR 1982	-	-	- 28.8	-	-	- 51.1	-	-	- 20.8
Jan. 31	568.21	29,962	- 8.09	568.28	51,861	+ 230	833.41	48,034	+251
Feb. 28	576.96	37,148	+397	574.35	60,440	+ 474	833.97	48,401	+ 20.3
Mar. 31	590.41	49,852	+634	587.19	80,829	+1,018	837.42	50,689	+114
Apr. 30	590.78	50,244	+ 20.2	588.05	82,272	+ 74.4	838.66	51,524	+ 43.1
May 31	590.57	50,021	- 11.1	587.80	81,852	+ 21.0	839.53	52,115	+ 29.5
June 30	589.87	49,288	- 37.8	585.30	77,658	- 216	838.64	51,511	- 31.2
July 31	578.62	38,596	-534	584.91	77,010	- 32.3	836.56	50,113	- 69.8
Aug. 31	576.70	36,921	- 83.6	578.36	66,556	- 522	832.52	47,454	-133
Sept. 30	574.43	34,971	-101	571.54	56,393	- 524	817.10	37,929	-491
WTR YR 1983	-	-	- 18.5	-	-	- 35.2	-	-	+ 10.0

# Elevation at 2400 hours by interpolation.

\*\* Elevation at 0900 hours on first day of following month.

## HUDSON RIVER BASIN

## DIVERSIONS IN HUDSON RIVER BASIN

Undetermined diversion at Solsville from Chenango River in Susquehanna River basin into Oriskany Creek in Mohawk River Basin through Oriskany Creek Feeder.

Undetermined diversion from (and occasionally into) Oswego River, tributary to Lake Ontario, through Summit level of Erie (Barge) Canal.

Undetermined diversion from Black River tributary into Lake Ontario through Black River canal into Mohawk River in Hudson River basin.

Undetermined diversion from Hudson River basin to summit level of Champlain (Barge) Canal.

01343899 Diversion from Hinckley Reservoir (see preceding pages) for municipal supply of Utica. Diversion began prior to 1921. Records furnished by Utica Board of Water Supply.

Diversion from Schoharie Reservoir (see preceding pages) on Schoharie Creek through Shandaken Tunnel to Esopus Creek at, 01362230 Lat 42°06'52", long 74°21'51", near Phoenicia, Ulster County. No diversion prior to 1924. Records furnished by Department of Environmental Protection, City of New York.

01359498 Diversion from Watervliet Reservoir from municipal supply of city of Watervliet and town of Guilderland (see station 01359519).

01363401 Diversion from Ashokan Reservoir (see preceding pages) on Esopus Creek through the Catskill Aqueduct for municipal supply of New York City. Completed in 1917. Records furnished by Department of Environmental Protection, City of New York.

01366399 Diversion from Rondout Reservoir. Total diversion from Rondout Reservoir to Delaware Aqueduct for municipal supply of City of New York. Rondout Reservoir is a collection basin for diversion from: Cannonsville Reservoir, Pepacton Reservoir, and Neversink Reservoir in the Delaware River basin and the Rondout Creek in the Hudson River basin. Diversion began April 1944 by means of temporary emergency connection to aqueduct. Records furnished by Bureau of Water Resources Development, City of New York.

01367630 Diversion from Morris Lake, tributary to Wallkill River, by Newtown Water and Sewer Authority for municipal use in New Jersey. After use the water is released into the Paulins Kill (Delaware River basin). Records available from the Delaware River Basin Commission.

## DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Month	01343899 <u>Hinckley Reservoir</u>	01362230 <u>Schoharie Reservoir</u>	01363401 <u>Ashokan Reservoir</u>	01366399 <u>Rondout Reservoir</u>
October.....	33.3	224	878	1,304
November.....	32.0	156	932	1,072
December.....	28.7	181	1,021	882
CAL YR 1982	33.2	278	928	1,111
January.....	29.6	461	925	731
February.....	31.4	771	956	738
March.....	32.4	562	899	682
April.....	31.7	0	682	800
May.....	28.8	0	530	1,173
June.....	32.6	194	749	1,358
July.....	35.7	313	898	1,364
August.....	34.9	278	906	1,370
September.....	33.5	287	887	1,352
WTR YR 1983	32.1	283	855	1,071

## HACKENSACK RIVER BASIN

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01376800 HACKENSACK RIVER AT WEST NYACK, NY

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

DRAINAGE AREA.--29.4 mi<sup>2</sup>.

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft<sup>3</sup>/s Feb. 3, 1973, gage height, 9.38 ft, from floodmarks, from rating curve extended above 840 ft<sup>3</sup>/s; maximum gage height, 9.78 ft Apr. 10, 1980; minimum daily, 2.6 ft<sup>3</sup>/s June 12, 1965, Sept. 25, 26, 30, 1966; minimum gage height, 1.70 ft Oct. 22, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 919 ft<sup>3</sup>/s Apr. 16, gage height, 9.11 ft; minimum discharge, 6.5 ft<sup>3</sup>/s Oct. 6; minimum gage height, 2.59 ft June 29, 30, July 6; minimum daily, 8.9 ft<sup>3</sup>/s Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	27	36	41	38	23	85	84	112	19	16	36
2	9.9	28	37	41	41	41	69	80	81	18	15	36
3	11	29	36	40	68	23	281	76	65	17	15	35
4	9.4	29	36	40	44	20	231	77	170	17	15	35
5	9.4	39	36	40	46	17	116	71	136	27	13	35
6	8.9	35	37	50	46	15	87	63	80	17	13	35
7	9.4	35	35	42	47	21	78	53	76	17	15	32
8	14	34	35	42	41	28	111	50	67	17	13	33
9	32	32	35	41	30	26	216	52	52	18	14	35
10	23	31	34	42	22	29	339	46	44	18	12	36
11	26	29	37	67	14	22	484	43	38	18	20	36
12	23	30	37	45	14	28	171	41	35	17	16	37
13	24	58	38	42	14	14	109	37	31	17	12	38
14	26	27	38	42	15	12	90	30	26	16	12	37
15	25	27	37	42	17	15	84	32	23	18	14	36
16	23	32	44	42	17	16	387	53	25	17	14	37
17	27	38	41	42	18	13	554	59	21	17	14	37
18	26	38	38	41	23	32	191	49	18	18	13	36
19	26	35	37	40	23	101	217	42	20	18	12	37
20	26	37	39	40	20	31	304	47	18	17	12	37
21	27	38	38	42	21	140	148	47	17	18	13	39
22	26	37	38	42	23	366	109	44	17	15	13	34
23	26	35	37	51	23	150	92	84	18	16	13	36
24	25	36	38	53	23	99	265	74	18	19	14	38
25	27	35	38	46	21	105	529	59	20	15	26	38
26	30	35	40	43	20	69	307	57	18	15	35	40
27	27	35	40	42	19	72	146	272	18	15	37	40
28	27	37	40	42	19	438	117	114	26	16	38	40
29	26	43	40	42	---	184	101	84	17	15	38	40
30	26	37	40	42	---	98	90	142	17	15	37	52
31	26	---	40	42	---	86	---	378	---	16	36	---
TOTAL	681.9	1038	1172	1349	767	2334	6108	2440	1324	533	580	1113
MEAN	22.0	34.6	37.8	43.5	27.4	75.3	204	78.7	44.1	17.2	18.7	37.1
MAX	32	58	44	67	68	438	554	378	170	27	38	52
MIN	8.9	27	34	40	14	12	69	30	17	15	12	32
CAL YR 1982	TOTAL	11606.9	MEAN	31.8	MAX	209	MIN	8.9				
WTR YR 1983	TOTAL	19439.9	MEAN	53.3	MAX	554	MIN	8.9				

## HACKENSACK RIVER BASIN

01377000 HACKENSACK RIVER AT RIVERVALE, NJ

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

DRAINAGE AREA.--58.0 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Water-discharge records good. Flow regulated by De Forest Lake and Lake Tappan (see Hackensack River Basin, reservoirs in). Diversions from De Forest Lake and West Nyack, NY, for municipal water supply (see Hackensack River Basin, diversions).

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

AVERAGE DISCHARGE.--42 years, 88.8 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,160 ft<sup>3</sup>/s Sept. 27, 1975, gage height, 7.15 ft; no flow part of Jan. 16, 1970 and May 30, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,570 ft<sup>3</sup>/s Apr. 17, gage height, 5.63 ft; minimum, 12 ft<sup>3</sup>/s Feb. 11, gage height 1.48 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	84	36	66	34	37	132	140	437	34	142	90
2	98	86	36	64	28	65	113	134	185	33	127	94
3	96	86	36	63	62	37	355	127	129	31	111	113
4	96	67	36	61	33	34	555	126	218	29	115	113
5	95	66	36	67	29	31	288	121	254	33	138	111
6	94	56	47	79	29	30	176	111	182	55	137	120
7	96	55	69	59	29	38	135	100	117	40	136	133
8	97	55	90	59	29	53	170	90	108	31	133	131
9	98	54	88	58	29	43	459	88	90	27	132	128
10	94	54	88	58	27	39	568	80	76	25	131	130
11	93	54	86	79	24	33	1070	73	64	23	143	147
12	86	64	86	34	30	61	632	68	57	21	77	151
13	77	92	110	32	29	30	268	60	52	30	50	148
14	77	40	82	31	29	25	169	54	45	73	48	140
15	76	38	82	33	28	24	144	57	40	155	47	123
16	76	37	73	33	29	21	565	70	37	161	47	97
17	74	37	37	33	31	20	1340	90	33	158	79	85
18	82	37	47	34	35	39	766	80	31	158	117	81
19	91	37	61	31	35	131	462	70	31	158	116	75
20	90	46	66	33	33	34	655	77	33	158	114	68
21	89	64	80	34	34	145	407	81	34	155	113	63
22	88	69	78	33	36	46	244	77	33	71	112	75
23	88	79	78	53	36	30	184	137	29	41	112	50
24	87	92	77	49	36	27	348	127	27	47	110	50
25	86	100	76	40	34	26	1000	106	27	45	125	48
26	54	95	74	38	33	24	872	96	25	44	143	54
27	40	87	74	37	31	36	465	293	24	44	139	59
28	68	86	72	37	31	442	249	313	39	44	139	54
29	76	74	72	37	---	576	190	185	68	92	141	48
30	86	38	70	38	---	242	159	184	44	145	136	65
31	86	---	69	41	---	158	---	315	---	144	114	---
TOTAL	2632	1929	2112	1444	903	2577	13140	3730	2569	2305	3524	2844
MEAN	64.9	64.3	68.1	46.6	32.3	83.1	438	120	85.6	74.4	114	94.8
MAX	98	100	110	79	62	576	1340	315	437	161	143	151
MIN	40	37	36	31	24	20	113	54	24	21	47	48
CAL YR 1982	TOTAL		24962	MEAN		68.4	MAX		472	MIN		12
WTR YR 1983	TOTAL		39709	MEAN		109	MAX		1340	MIN		20



## RESERVOIRS IN HACKENSACK RIVER BASIN, NJ

01376700 DE FOREST LAKE.--Lat 41°06'23", long 73°58'01", Rockland County, NY, Hydrologic Unit 02030103, at dam on Hackensack River, 0.85 mi north of West Nyack, NY. DRAINAGE AREA, 27.5 mi<sup>2</sup> revised. PERIOD OF RECORD, February 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam with sheet piling cutoff and concrete spillway; dam completed and storage began in February 1956. Total capacity at crest of dam 4,068,000,000 gal, elevation, 80.00 ft. Crest of dam topped by two 50-foot Bascule gates 5 ft high. Flow regulated by 12-inch Howell-Bunger valve at elevation, 59.25 ft and 24-inch Howell-Bunger valve at elevation, 61.25 ft. Reservoir used for storage and water released by Hackensack Water Co., for municipal water supply. Record of elevation and contents furnished by Hackensack Water Co.

01376950 LAKE TAPPAN.--Lat 41°01'05", long 74°00'05", Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River, 0.50 mi north of Old Tappan. DRAINAGE AREA, about 49.0 mi<sup>2</sup>. PERIOD OF RECORD, October 1966 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam, completed in 1966. Capacity at spillway level, 3,378,000,000 gal, elevation, 55.00 ft. Flow regulated by four Bascule gates and one sluice gate. Water is released by Hackensack Water Co., for municipal water supply. Record of elevation and contents furnished by Hackensack Water Co.

01377450 WOODCLIFF LAKE.--Lat 41°01', long 74°03', Bergen County, Hydrologic Unit 02030103, at dam on Pascack Brook, 0.75 mi north of Hillsdale. DRAINAGE AREA, 19.4 mi<sup>2</sup>. PERIOD OF RECORD, December 1929 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam, completed about 1905. Capacity at spillway level, 835,000,000 gal, elevation, 94.33 ft. Flow is regulated by flashboards and one 36-inch gate in center of dam. Water is released for diversion at New Milford by Hackensack Water Co., for municipal supply. Record of elevation and contents furnished by Hackensack Water Co.

01378480 ORADELL RESERVOIR.--Lat 40°57', long 74°02', Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River at Oradell. DRAINAGE AREA, 113 mi<sup>2</sup>. PERIOD OF RECORD, December 1922 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by hollow concrete dam, completed in 1922. Capacity at spillway level, 2,850,000,000 gal, elevation, 22.66 ft. Flow regulated by seven sluice gates (7 by 9 ft). Water is released for diversion by Hackensack Water Co., 1 mi downstream from dam for municipal supply. Record of elevation and contents furnished by Hackensack Water Co.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01376700 DE FOREST LAKE +				01376950 LAKE TAPPAN +			01377450 WOODCLIFF LAKE +		
Sept. 30	84.08	5,372	-	48.19	1,699	-	82.27	238	-
Oct. 31	82.31	4,816	-27.8	43.27	619	-53.9	77.69	116	-6.1
Nov. 30	81.32	4,514	-15.6	42.23	454	-8.5	78.41	132	+0.8
Dec. 31	79.28	3,904	-30.4	39.67	153	-15.0	76.47	90	-2.1
CAL YR 1982	-	-	+1.1	-	-	-3.2	-	-	-1.1
Jan. 31	78.56	3,692	-10.6	43.91	732	+28.9	82.79	255	+8.2
Feb. 29	79.91	4,090	+22.0	46.85	1,359	+34.6	86.98	410	+8.6
Mar. 31	85.33	5,779	+84.3	55.32	3,968	+130.2	91.37	611	+10.0
Apr. 30	85.34	5,782	+2	55.30	3,960	-4	91.19	602	-5
May 31	85.40	5,802	+1.0	55.48	4,026	+3.3	90.35	561	-2.0
June 30	84.80	5,604	-10.2	55.14	3,902	-6.4	76.38	89	-24.3
July 31	83.43	5,165	-21.9	52.31	2,925	-48.8	76.38	89	0
Aug. 31	81.43	4,547	-30.8	45.79	1,114	-90.4	76.50	91	+1
Sept. 30	78.60	3,704	-43.5	38.44	65	-54.1	67.60	0	-4.7
WTR YR 1983	-	-	-7.1	-	-	-6.9	-	-	-1.0
01378480 ORADELL RESERVOIR +									
Sept. 30	18.50	2,350	-						
Oct. 31	18.01	2,239	-5.5						
Nov. 30	17.37	2,097	-7.3						
Dec. 31	16.54	1,916	-9.0						
CAL YR 1982	-	-	-2.5						
Jan. 31	18.73	2,403	+24.3						
Feb. 29	20.90	2,919	+28.5						
Mar. 31	23.50	3,600	+34.0						
Apr. 30	23.58	3,622	+1.1						
May 31	23.58	3,622	0						
June 30	21.70	3,120	-25.9						
July 31	18.18	2,278	-42.0						
Aug. 31	18.49	2,348	+3.5						
Sept. 30	17.07	2,031	-16.4						
WTR YR 1983	-	-	-1.4						

+ Elevation at 0800 on first day of following month.

## HACKENSACK RIVER BASIN

## DIVERSIONS FROM HACKENSACK RIVER BASIN, NJ

- 01376272 Hackensack Water Co., diverts water from Sparkill Creek at foot of Danny Lane in Northvale, 300 ft south of New York-New Jersey state line and 0.6 mi upstream of Sparkill Brook. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records furnished by Hackensack Water Co.
- 01376699 Spring Valley Water Co., diverts water at De Forest Lake for municipal supply in Rockland County, NY. Records furnished by Spring Valley Water Co.
- 01376810 Village of Nyack, NY, diverts water from Hackensack River 100 ft downstream from gaging station on Hackensack River at West Nyack, NY (sta 01376800) for municipal supply. Records furnished by Board of Water Commissioners of Nyack, NY.
- 01378490 Hackensack Water Co., diverts water for municipal supply from Oradell Reservoir at Haworth pumping station 2.0 mi upstream from gaging station on Hackensack River at New Milford and from Hackensack River about 50 ft above gaging station on Hackensack River at New Milford, NJ (sta 01378500).
- 01378520 Hackensack Water Co., diverts water from Hirshfeld Brook, a tributary of the Hackensack River, below the gaging station on Hackensack River at New Milford, NJ, for municipal supply. Records furnished by Hackensack Water Co.
- 01391210 Hackensack Water Co., diverts water from Saddle River just north of bridge on State Route 4 at Arcola. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records furnished by Hackensack Water Co.

## DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Month	01376699 SPRING VALLEY WATER CO.	01376810 WEST NYACK, NY	01378490 HACKENSACK WATER CO.
October.....	10.7	2.16	129
November.....	5.98	2.02	126
December.....	6.07	1.94	126
CAL YR 1982.....	6.41	2.25	139
January.....	5.99	2.11	101
February.....	4.89	2.15	97.5
March.....	5.85	2.13	122
April.....	7.41	2.12	129
May.....	7.09	2.19	139
June.....	10.4	2.56	169
July.....	16.9	2.81	185
August.....	17.2	2.71	175
September.....	17.8	2.61	160
WTR YR 1983.....	9.72	2.29	138

Tabulation of diversion by pumpage from sources other than the Hackensack River into Oradell Reservoir. These figures are included in diversions from Hackensack River as noted above.

## DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Month	01376272 SPARKILL CREEK (HUDSON RIVER BASIN)	01378520 HIRSHFELD BROOK (HACKENSACK RIVER BASIN)	01391210 SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October.....	0	0.98	1.33	.84
November.....	.11	2.06	7.31	2.43
December.....	.03	1.92	11.2	2.69
CAL YR 1982.	.08	.90	5.22	.95
January.....	.59	2.35	13.6	3.13
February.....	1.20	3.73	20.6	3.18
March.....	.38	1.30	5.46	.92
April.....	0	0	0	0
May.....	0	0	0	0
June.....	0	0	8.37	.15
July.....	.03	.43	9.07	.18
August.....	.11	2.48	4.45	.23
September.....	.005	1.89	3.48	2.89
WTR YR 1983.	.20	1.41	6.99	1.37

## PASSAIC RIVER BASIN

101

01387400 RAMAPO RIVER AT RAMAPO, N.Y.

LOCATION.--Lat 41°08'25", long 74°10'14", Rockland County, Hydrologic Unit 02030103, on right bank, 105 ft downstream from highway bridge on New York State Thruway at Ramapo, 500 ft upstream from local bridge, and 0.4 mi upstream from Torne Brook.

DRAINAGE AREA.--86.7 mi<sup>2</sup>.

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

REVISED RECORDS.--WDR NY-81-1: 1980(m).

GAGE.--Water-stage recorder. Concrete control. Datum of gage is 297.00 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those during winter periods, which are fair. Occasional regulation by Lake Sebago.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft<sup>3</sup>/s Mar. 22, 1980, gage height, 9.89 ft; minimum, 5.3 ft<sup>3</sup>/s Aug. 7, 1983, gage height, 1.27 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,050 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	1830	1,000	4.89	Apr. 11	0715	1,260	5.01
Mar. 19	1345	*3,400	*8.02	Apr. 17	0300	1,980	6.18
Mar. 21	2400	1,840	5.97	Apr. 25	2300	1,770	5.86
Mar. 28	1345	1,070	4.67				

Minimum discharge, 5.3 ft<sup>3</sup>/s Aug. 7, gage height, 1.27 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	42	97	75	210	205	380	396	427	49	15	15
2	22	40	84	73	220	592	319	332	357	42	15	14
3	21	35	76	70	853	712	514	278	250	38	14	12
4	18	42	75	65	832	567	675	254	427	34	13	12
5	17	127	73	61	536	465	510	217	448	32	14	11
6	16	102	70	114	395	389	417	170	310	41	15	11
7	16	62	69	127	350	436	367	150	386	33	14	9.4
8	16	49	64	105	316	498	403	133	292	27	12	8.9
9	16	42	65	89	270	716	545	141	210	25	11	8.9
10	20	36	62	84	210	674	687	123	164	22	11	8.9
11	20	32	57	571	192	743	1170	111	141	21	19	8.9
12	18	31	57	557	170	865	812	102	123	19	54	9.4
13	17	205	51	374	160	783	604	93	106	18	58	12
14	21	239	48	250	150	670	473	87	95	17	30	12
15	21	155	45	200	159	571	386	87	83	16	24	11
16	20	108	111	160	140	475	921	131	75	17	20	9.4
17	18	91	244	130	140	408	1790	213	95	16	18	9.4
18	16	78	171	110	175	462	1170	147	79	16	18	9.4
19	15	70	134	100	192	2660	901	116	70	18	18	8.4
20	14	70	120	100	175	2130	1040	120	72	27	16	7.9
21	14	68	114	100	167	1500	975	120	73	24	14	15
22	14	64	108	97	179	1630	887	111	62	35	13	62
23	30	61	97	179	220	1030	713	199	53	25	13	29
24	48	57	91	356	249	713	757	174	46	22	12	20
25	54	52	102	345	247	541	1540	133	41	29	12	16
26	72	48	108	300	234	424	1510	139	35	23	12	13
27	64	47	105	252	210	380	911	658	32	21	11	13
28	57	42	97	222	196	985	675	629	38	18	15	12
29	52	102	91	192	---	784	549	386	84	17	29	12
30	49	120	84	175	---	553	463	481	65	16	20	30
31	45	---	78	205	---	448	---	564	---	14	16	---
TOTAL	866	2317	2848	5838	7547	24009	23064	6995	4739	772	576	430.9
MEAN	27.9	77.2	91.9	188	270	774	769	226	158	24.9	18.6	14.4
MAX	72	239	244	571	853	2660	1790	658	448	49	58	62
MIN	14	31	45	61	140	205	319	87	32	14	11	7.9

CAL YR 1982	TOTAL	53575.0	MEAN	147	MAX	1770	MIN	14
WTR YR 1983	TOTAL	80001.9	MEAN	219	MAX	2660	MIN	7.9

## PASSAIC RIVER BASIN

01387420 RAMAPO RIVER AT SUFFERN, NEW YORK

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

DRAINAGE AREA.--93.0 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Concrete control. Datum of gage is 264.44 ft National Geodetic Vertical Datum of 1929.

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 5,160 ft<sup>3</sup>/s Mar. 22, 1980 (gage height about 11.1 ft) from rating curve extended above 1,800 ft<sup>3</sup>/s on basis of runoff comparison with station 1.5 mi upstream; minimum 2.6 ft<sup>3</sup>/s Sept. 30, 1981, gage height, 1.23 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft<sup>3</sup>/s and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	1830	1,250	5.61	Apr. 11	0845	1,390	5.92
Mar. 19	1230	*3,590	*9.71	Apr. 17	0315	2,160	7.41
Mar. 21	2145	2,020	7.16	Apr. 20	1630	1,180	5.45
Mar. 28	1545	1,180	5.47	Apr. 25	2400	1,910	6.96

Minimum discharge, 5.8 ft<sup>3</sup>/s Sept. 6, gage height 1.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	39	97	77	191	202	332	348	384	38	17	13
2	16	37	86	75	206	607	285	293	316	32	14	12
3	15	31	79	71	972	766	518	256	237	29	12	13
4	13	37	75	64	956	567	679	240	412	26	10	11
5	12	104	75	62	534	436	472	217	398	25	11	11
6	11	88	69	117	375	351	367	180	280	31	14	8.2
7	12	60	69	120	326	421	319	149	340	24	13	7.3
8	12	48	61	104	290	503	370	134	263	19	12	8.2
9	16	42	64	90	251	788	515	146	210	18	11	8.2
10	20	37	57	86	226	737	708	115	159	15	11	8.2
11	20	33	54	550	198	826	1270	99	134	15	21	9.0
12	18	31	53	509	180	1000	830	90	112	14	47	10
13	16	159	49	316	160	872	570	83	95	14	49	12
14	18	210	46	242	150	722	421	77	81	13	27	12
15	18	140	43	180	166	587	337	79	71	14	21	11
16	18	110	104	150	143	456	964	128	62	15	17	11
17	16	90	195	130	146	372	1940	212	81	13	15	12
18	15	77	137	120	180	484	1250	143	67	12	16	11
19	14	69	109	110	195	3040	952	109	57	14	15	10
20	13	71	107	110	173	2280	1130	117	60	23	14	9.5
21	12	66	99	110	169	1650	1030	117	60	24	14	22
22	12	61	92	109	187	1760	916	104	51	31	11	64
23	27	59	86	173	221	1090	704	219	44	21	12	34
24	46	57	90	324	240	718	781	180	37	18	12	24
25	50	52	102	303	240	506	1650	134	31	23	11	19
26	67	48	107	263	226	378	1600	159	27	18	11	17
27	57	46	99	230	198	348	952	655	24	15	11	16
28	53	43	92	202	187	1100	665	587	33	14	14	16
29	50	104	95	176	---	807	512	345	71	13	27	15
30	45	117	90	163	---	518	418	469	50	14	18	40
31	42	---	81	191	---	398	---	547	---	13	14	---
TOTAL	772	2166	2662	5527	7686	25290	23457	6731	4247	608	522	474.6
MEAN	24.9	72.2	85.9	178	275	816	782	217	142	19.6	16.8	15.8
MAX	67	210	195	550	972	3040	1940	655	412	38	49	64
MIN	11	31	43	62	143	202	285	77	24	12	10	7.3
#	3.5	6.5	8.0	7.7	11	12	9.4	8.1	9.5	5.9	2.8	0.7

CAL YR 1982 TOTAL 54314.0 MEAN 149 MAX 2120 MIN 11 # 9.3  
WTR YR 1983 TOTAL 80142.6 MEAN 220 MAX 3040 MIN 7.3 # 7.1

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



## PASSAIC RIVER BASIN

103

01387450 MAHWAH RIVER NEAR SUFFERN, NY

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

DRAINAGE AREA.--12.3 mi<sup>2</sup>.

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

REVISED RECORDS.--WDR NY-79-1: 1977.

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

REMARKS.--Records poor. Occasional regulation from unknown source.

AVERAGE DISCHARGE.--25 years, 24.7 ft<sup>3</sup>/s, 27.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft<sup>3</sup>/s Nov. 8, 1977, gage height, 9.91 ft, from rating curve extended above 850 ft<sup>3</sup>/s on basis of contracted-opening measurements at gage heights 8.52 ft and 9.91 ft; minimum 0.05 ft<sup>3</sup>/s Oct. 20, 21, 1970, result of temporary pumping from gage pool.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 19	1345	*683	*5.51	Apr. 16	2030	462	4.84
Mar. 21	1715	633	5.37	Apr. 25	1415	353	4.44
Mar. 28	0330	520	5.03	May 27	0200	249	3.98
Apr. 3	1400	312	4.27	May 30	2100	239	3.93
Apr. 10	1915	422	4.70				

Minimum discharge, 1.7 ft<sup>3</sup>/s Sept. 16, gage height, 1.35 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	3.1	13	9.3	29	34	56	50	63	8.3	7.3	3.2
2	3.1	3.0	11	9.0	31	92	49	46	49	8.5	5.6	2.9
3	2.9	2.9	10	8.7	120	62	154	42	40	7.8	4.8	2.6
4	2.6	3.2	10	8.0	110	50	112	40	93	7.3	4.2	2.6
5	2.4	15	9.6	8.1	80	46	77	36	61	13	4.2	2.4
6	2.5	9.1	10	21	60	39	62	31	46	10	4.0	2.2
7	2.7	7.4	10	16	50	50	57	28	48	8.0	3.8	2.0
8	3.6	6.4	9.4	14	45	61	69	27	39	7.5	3.5	1.9
9	5.1	5.5	9.0	12	38	76	83	27	32	7.0	3.1	1.9
10	5.8	5.0	8.2	12	26	81	173	23	28	6.6	2.8	1.9
11	5.5	4.7	8.2	83	24	84	187	21	24	6.2	9.4	2.0
12	5.4	4.6	8.3	80	22	119	106	19	21	6.2	16	2.0
13	5.4	38	7.5	52	20	85	77	18	19	5.4	9.1	2.8
14	5.9	26	6.9	33	19	69	63	17	17	5.0	6.2	2.6
15	5.8	18	6.6	24	19	58	57	19	15	5.2	4.8	2.0
16	5.6	14	24	19	19	51	243	39	14	6.8	4.5	1.7
17	5.0	12	25	16	21	47	267	38	18	4.2	4.2	2.3
18	4.9	11	17	15	26	102	136	26	13	4.0	4.7	2.5
19	4.9	9.9	15	15	28	578	132	22	13	5.2	4.8	2.5
20	4.7	9.0	14	15	26	265	175	27	16	6.8	3.7	2.5
21	4.5	8.6	13	15	27	291	115	25	14	6.2	3.1	4.5
22	4.3	8.0	12	15	31	239	87	23	12	9.4	2.8	18
23	4.2	7.6	11	25	37	125	72	61	11	4.3	3.0	3.8
24	3.9	7.4	12	50	39	88	134	39	10	6.8	2.7	3.1
25	4.5	6.9	13	47	37	71	233	31	9.7	5.0	2.6	2.7
26	14	6.5	13	42	33	59	167	37	9.1	3.8	2.6	2.6
27	6.9	6.3	12	35	29	63	105	129	8.8	3.4	2.6	2.6
28	5.5	6.2	11	30	29	255	80	70	14	3.0	3.1	2.5
29	4.4	20	11	27	---	112	66	54	15	2.8	8.0	2.3
30	3.7	15	10	25	---	78	57	95	9.7	2.8	5.0	17
31	3.4	---	9.7	28	---	65	---	101	---	2.7	3.5	---
TOTAL	146.6	300.3	360.4	809.1	1075	3495	3451	1261	782.3	189.2	149.7	105.6
MEAN	4.73	10.0	11.6	26.1	38.4	113	115	40.7	26.1	6.10	4.83	3.52
MAX	14	38	25	83	120	578	267	129	93	13	16	18
MIN	2.4	2.9	6.6	8.0	19	34	49	17	8.8	2.7	2.6	1.7
CFSM	.39	.81	.94	2.12	3.12	9.19	9.35	3.31	2.12	.50	.39	.29
IN.	.44	.91	1.09	2.45	3.25	10.57	10.44	3.81	2.37	.57	.45	.32

CAL YR 1982 TOTAL 7005.8 MEAN 19.2 MAX 195 MIN 1.9 CFSM 1.56 IN 21.19  
WTR YR 1983 TOTAL 12125.2 MEAN 33.2 MAX 578 MIN 1.7 CFSM 2.70 IN 36.67

NOTE.--No gage height record Jan. 11 to Feb. 10.

## PASSAIC RIVER BASIN

01387500 RAMAPO RIVER NEAR MAHWAH, NJ

LOCATION.--Lat 41°05'51", long 74°09'48", Bergen County, Hydrologic Unit 02030103, on left bank 350 ft downstream from State Highway 17, 0.6 mi downstream from Mahwah River, and 1.0 mi west of Mahwah. Water-quality samples collected at bridge 350 ft upstream from gage at high flows.

DRAINAGE AREA.--120 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1902 to December 1906, September 1922 to current year (October 1902 to February 1905 monthly discharge only, published in WSP 1302). Figures of daily discharge Feb. 10, 1903, to Dec. 31, 1904, published in WSP 97, 125, are unreliable and should not be used.

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

GAGE.--Water-stage recorder. Datum of gage is 253.10 ft National Geodetic Vertical Datum of 1929. Prior to Dec. 31, 1906, nonrecording gage on former bridge at site 250 ft downstream at different datum. Sept. 1, 1922 to Dec. 23, 1936, water-stage recorder just below former bridge at present datum.

REMARKS.--Water-discharge records fair. Flow affected by diversion from Spring Valley (NY) Water Company well field upstream from station (see sta. 01387420). Occasional regulation from lakes and ponds upstream from the station.

AVERAGE DISCHARGE.--65 years (water years 1903-06, 1923-83), 229 ft<sup>3</sup>/s, 26.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,400 ft<sup>3</sup>/s Oct. 9, 1903, gage height, 11.0 ft from graph based on once-daily gage readings, site and datum then in use, from rating curve extended above 1,400 ft<sup>3</sup>/s; maximum gage height at present site and datum, 12.53 ft Oct. 16, 1955; minimum discharge, 4.6 ft<sup>3</sup>/s Sept. 30, 1981 (possible regulation); minimum daily discharge, 6.1 ft<sup>3</sup>/s Sept. 30, 1981 (possible regulation).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 19	1245	*4480	9.76	Apr. 11	0230	1560	7.26
Mar. 21	2345	2310	8.21	Apr. 17	0100	2410	8.30
Mar. 28	0315	1520	7.17	Apr. 25	2130	1960	7.83

Minimum discharge, 11.0 ft<sup>3</sup>/s Sept. 9, 21, gage height, 2.02 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	41	121	96	230	273	534	531	615	61	39	20
2	21	40	108	93	263	850	454	451	497	54	36	19
3	19	36	99	89	1120	964	920	387	360	47	26	18
4	18	42	98	82	1100	702	1030	366	689	42	22	17
5	17	138	94	85	684	575	715	320	631	60	22	16
6	17	106	93	168	497	474	583	274	435	66	25	14
7	18	65	90	156	440	566	511	244	524	45	24	13
8	19	51	81	132	389	676	606	227	398	38	23	13
9	23	44	85	115	329	1030	784	232	298	35	21	13
10	27	39	77	117	293	947	1030	202	242	32	20	13
11	28	36	74	795	256	1080	1450	180	210	29	70	13
12	25	34	73	670	542	1210	1110	166	181	29	126	17
13	24	223	65	431	474	1110	818	154	156	28	81	19
14	25	278	61	311	279	929	636	142	136	26	44	16
15	27	186	60	273	206	744	537	148	119	28	35	15
16	27	142	182	267	192	616	1350	244	106	31	29	15
17	26	120	263	225	201	516	2070	316	128	27	26	15
18	25	104	183	197	243	696	1390	227	111	24	29	14
19	24	93	146	214	255	3630	1220	181	96	35	28	13
20	23	95	137	232	232	2430	1350	199	103	41	24	13
21	24	87	129	168	228	1850	1210	194	102	74	21	56
22	24	82	118	136	251	1900	1140	177	85	72	19	131
23	33	78	109	247	292	1290	964	383	73	38	19	45
24	47	75	119	452	328	1020	1080	275	62	45	18	30
25	53	70	132	408	321	746	1780	212	55	42	18	24
26	94	64	135	343	292	596	1670	263	49	33	18	21
27	66	62	123	283	255	589	1180	1020	46	29	17	20
28	55	60	117	244	244	1430	944	845	81	26	28	19
29	50	156	120	216	---	1110	725	527	126	25	41	18
30	46	151	113	205	---	770	620	733	81	24	28	105
31	43	---	103	237	---	625	---	931	---	24	22	---
TOTAL	990	2798	3508	7687	10436	31944	30411	10751	6795	1210	999	775
MEAN	31.9	93.3	113	248	373	1030	1014	347	227	39.0	32.2	25.8
MAX	94	278	263	795	1120	3630	2070	1020	689	74	126	131
MIN	17	34	60	82	192	273	454	142	46	24	17	13
CFSM	.27	.78	.94	2.07	3.11	8.58	8.45	2.89	1.89	.32	.27	.21
IN.	.31	.87	1.09	2.38	3.24	9.90	9.43	3.33	2.11	.38	.31	.24

CAL YR 1982	TOTAL	69627	MEAN	191	MAX	2290	MIN	17	CFSM	1.59	IN.	21.58
WTR YR 1983	TOTAL	108304	MEAN	297	MAX	3630	MIN	13	CFSM	2.47	IN.	33.57

## DELAWARE RIVER BASIN

105

01413500 EAST BRANCH DELAWARE RIVER AT MARGARETVILLE, NY

LOCATION.--Lat 42°08'41", long 74°39'14", Delaware County, Hydrologic Unit 02040102, on right bank at downstream side of bridge on Fair Street at intersection with Main Street at Margaretsville, 0.2 mi upstream from unnamed tributary, and 1.6 mi downstream from Dry Brook.

DRAINAGE AREA.--163 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,302.38 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 9, 1937, nonrecording gage and Sept. 9, 1937 to Aug. 17, 1944, water-stage recorder, at same site at datum 1.00 ft higher.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--46 years, 306 ft<sup>3</sup>/s, 25.49 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft<sup>3</sup>/s Nov. 25, 1950, gage height, 13.84 ft, from rating curve extended above 8,700 ft<sup>3</sup>/s; minimum, 5.0 ft<sup>3</sup>/s Aug. 5, 1964; minimum gage height, 0.89 ft Sept. 30, Oct. 1, 1943, present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	1045	2,850	7.05	Apr. 16	1215	3,050	7.26
Mar. 21	1830	2,880	7.09	Apr. 25	1115	*4,220	*8.37

Minimum discharge, 10 ft<sup>3</sup>/s Sept. 9, 10, gage height, 2.49 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	26	232	260	200	177	371	1400	278	81	28	20
2	19	28	220	230	210	258	333	1610	245	72	52	20
3	18	25	209	200	2010	260	440	1250	223	67	38	17
4	18	30	201	180	1320	236	439	1310	306	72	30	16
5	18	244	187	170	800	277	380	1030	260	72	28	15
6	16	118	190	160	640	285	360	840	237	65	25	14
7	16	83	173	150	500	459	361	692	308	58	24	13
8	17	67	153	140	400	554	564	666	237	50	25	12
9	21	56	130	130	330	736	605	717	210	46	23	10
10	25	52	100	130	290	662	900	545	192	45	20	11
11	23	46	90	293	270	706	1160	478	158	41	26	13
12	20	48	82	233	250	698	954	431	141	38	50	14
13	21	228	80	170	230	596	782	391	138	35	52	14
14	32	160	78	150	210	549	651	352	115	32	36	12
15	33	138	76	130	200	559	590	386	90	32	29	11
16	38	118	470	120	190	544	1930	425	75	33	24	11
17	38	105	429	110	190	561	1680	328	67	32	21	11
18	35	97	314	100	180	586	1430	294	61	29	38	11
19	30	90	260	96	180	1780	1220	279	57	28	45	11
20	28	83	230	94	180	1810	1060	303	219	36	30	11
21	29	81	210	92	180	1920	886	290	147	46	24	16
22	29	90	200	92	200	1770	872	264	83	39	21	81
23	28	173	200	90	240	1260	1120	318	74	36	20	41
24	26	150	200	640	224	989	2180	281	69	36	18	29
25	25	140	210	520	202	770	3620	245	62	39	18	23
26	23	130	387	370	188	616	2510	228	58	33	16	19
27	23	130	311	310	171	541	1970	262	56	28	19	17
28	21	127	348	270	174	678	2050	245	240	25	20	15
29	21	275	340	240	---	583	1960	223	205	25	24	14
30	20	260	309	220	---	451	1870	272	102	24	30	14
31	21	---	281	200	---	405	---	286	---	24	21	---
TOTAL	753	3398	6900	6290	10359	22276	35248	16641	4713	1319	875	536
MEAN	24.3	113	223	203	370	719	1175	537	157	42.5	28.2	17.9
MAX	38	275	470	640	2010	1920	3620	1610	308	81	52	81
MIN	16	25	76	90	171	177	333	223	56	24	16	10
CFSM	.15	.69	1.37	1.24	2.26	4.40	7.19	3.29	.96	.26	.17	.11
IN.	.17	.77	1.57	1.43	2.36	5.07	8.02	3.79	1.07	.30	.20	.12

CAL YR 1982	TOTAL	87547	MEAN	240	MAX	2350	MIN	14	CFSM	1.47	IN	19.93
WTR YR 1983	TOTAL	109308	MEAN	299	MAX	3620	MIN	10	CFSM	1.83	IN	24.89

## DELAWARE RIVER BASIN

01414500 MILL BROOK NEAR DUNRAVEN, NY

LOCATION.--Lat 42°06'22", long 74°43'51", Delaware County, Hydrologic Unit 02040102, on left bank 0.4 mi upstream from bridge on New York City Road 9 and Pepacton Reservoir, and 2.7 mi southwest of Dunraven.

DRAINAGE AREA.--25.2 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1937 to current year. Published as "at Arena" 1937-67.

REVISED RECORDS.--WSP 1432: 1937. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,298.54 ft Board of Water Supply, City of New York datum. Prior to Oct. 17, 1939, nonrecording gage at site 0.2 mi downstream at different datum. Oct. 17 to Dec. 8, 1939, nonrecording gage at present site at different datum.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--46 years, 55.8 ft<sup>3</sup>/s, 30.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft<sup>3</sup>/s Sept. 21, 1938, from rating curve extended above 960 ft<sup>3</sup>/s on basis of velocity-area study; maximum gage height, 9.92 ft Nov. 25, 1950; minimum discharge observed, 1.2 ft<sup>3</sup>/s Sept. 25, 26, 1939, gage height, 0.71 ft, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 740 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	1045	*1,120	*5.90	Apr. 16	0945	966	5.76

Minimum discharge, 2.6 ft<sup>3</sup>/s Oct. 7, 8, Sept. 20, gage height, 2.78 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	4.3	48	41	37	25	70	209	59	18	4.9	6.6
2	3.6	4.0	46	35	45	36	62	223	55	17	7.4	5.2
3	3.4	4.1	42	33	535	36	95	182	51	21	5.6	4.5
4	3.3	5.9	40	30	203	34	90	179	63	23	4.9	4.1
5	3.1	32	37	28	100	44	82	144	53	23	4.9	4.1
6	3.1	23	39	27	80	46	75	121	52	18	4.5	3.8
7	3.0	17	35	26	60	82	72	101	55	16	4.5	3.6
8	2.7	15	32	24	54	109	109	107	46	14	4.5	3.3
9	3.3	13	30	24	47	117	117	101	42	12	4.3	3.3
10	3.1	12	27	25	43	113	162	87	39	11	4.3	3.3
11	3.1	11	25	55	39	115	173	78	34	10	6.9	3.3
12	3.1	11	23	42	35	109	134	71	32	9.0	8.7	3.3
13	3.4	63	22	37	31	95	109	62	29	8.7	8.0	3.4
14	4.7	42	21	33	29	87	99	55	27	8.0	6.4	3.4
15	4.1	35	20	30	27	83	92	56	25	8.7	5.4	3.4
16	4.7	28	128	28	26	82	555	54	56	8.7	4.3	3.3
17	4.5	26	99	26	26	83	358	47	39	7.4	4.1	3.4
18	4.1	24	64	24	25	90	248	46	33	6.9	4.7	3.3
19	4.1	22	47	23	24	326	191	43	30	6.6	4.1	3.1
20	4.1	21	40	22	24	335	159	48	26	6.4	4.1	2.8
21	4.3	21	37	22	25	394	130	46	23	6.9	4.1	8.0
22	4.3	24	35	22	30	344	130	45	20	6.6	4.0	10
23	4.1	34	34	22	32	216	162	49	17	5.6	3.8	6.1
24	4.0	31	34	40	28	159	321	47	14	6.1	3.4	4.5
25	4.0	29	40	111	26	128	555	44	13	6.1	3.3	4.0
26	4.0	27	57	80	23	103	354	42	12	5.4	3.4	3.4
27	3.8	25	50	62	22	95	308	46	12	4.9	3.8	3.0
28	3.8	24	55	52	23	139	454	42	52	4.7	3.8	3.0
29	3.8	53	53	45	---	109	378	42	34	4.5	9.0	3.0
30	3.8	52	48	41	---	90	291	56	22	4.7	9.7	3.0
31	3.8	---	44	39	---	78	---	61	---	4.3	7.4	---
TOTAL	116.0	733.3	1352	1149	1699	3902	6135	2534	1065	313.2	162.2	122.5
MEAN	3.74	24.4	43.6	37.1	60.7	126	205	81.7	35.5	10.1	5.23	4.08
MAX	4.7	63	128	111	535	394	555	223	63	23	9.7	10
MIN	2.7	4.0	20	22	22	25	62	42	12	4.3	3.3	2.8
CFSM	.15	.97	1.73	1.47	2.41	5.00	8.14	3.24	1.41	.40	.21	.16
IN.	.17	1.08	2.00	1.70	2.51	5.76	9.06	3.74	1.57	.46	.24	.18

CAL YR 1982	TOTAL	14712.3	MEAN	40.3	MAX	575	MIN	2.7	CFSM	1.60	IN	21.72
WTR YR 1983	TOTAL	19283.2	MEAN	52.8	MAX	555	MIN	2.7	CFSM	2.10	IN	28.46



## DELAWARE RIVER BASIN

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01415000 TREMPER KILL NEAR ANDES, NY

LOCATION.--Lat 42°07'12", long 74°49'08", Delaware County, Hydrologic Unit 02040102, on right bank 500 ft upstream from bridge on County Highway 1, about 1,700 ft upstream from Pepacton Reservoir, and 5 mi south of Andes.

DRAINAGE AREA.--33.2 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1937 to current year. Published as "near Shavertown" 1937-67.

REVISED RECORDS.--WDR NY 82-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Nov. 1937. Datum of gage is 1,285.87 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 5, 1937, nonrecording gage at site 500 ft downstream at different datum. Aug. 5 to Sept. 28, 1937, nonrecording gage at site 0.25 mi downstream at different datum.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--46 years, 59.4 ft<sup>3</sup>/s, 24.29 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft<sup>3</sup>/s Sept. 21, 1938, gage height, 7.12 ft, from rating curve extended above 1,500 ft<sup>3</sup>/s; maximum gage height, 7.92 ft Jan. 26, 1976 (ice jam); minimum, 0.5 ft<sup>3</sup>/s Sept. 17, 21, 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 700 ft<sup>3</sup>/s:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 16	Unknown	a800	Unknown

a About.

Minimum discharge, 2.0 ft<sup>3</sup>/s Sept. 16, 17, gage height, 2.24 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	4.2	49	47	35	28	69	165	44	16	12	12
2	3.0	3.8	46	40	45	40	62	251	39	14	26	9.2
3	2.8	3.3	41	35	450	39	92	200	39	12	10	6.4
4	2.7	8.7	39	31	200	44	84	217	50	11	7.1	3.4
5	2.6	47	36	28	100	50	76	168	40	11	6.4	3.3
6	2.5	23	36	26	70	64	70	138	38	9.6	5.5	3.4
7	2.5	17	34	24	58	97	100	116	44	8.7	4.9	3.4
8	2.7	14	33	23	50	120	110	116	35	7.5	4.2	3.3
9	3.6	12	32	23	44	127	130	111	31	7.5	3.4	3.1
10	2.8	11	32	24	40	130	160	86	28	6.8	2.8	3.1
11	2.5	10	31	52	37	130	170	76	26	6.4	4.7	2.4
12	2.4	12	31	40	33	120	130	71	23	6.4	9.6	2.3
13	3.3	60	31	35	30	110	110	63	21	5.8	9.2	2.3
14	5.8	34	30	32	28	98	100	58	20	4.9	6.1	2.3
15	4.9	28	28	29	27	94	90	67	21	7.5	4.4	2.1
16	6.8	26	127	27	25	92	600	67	20	9.6	3.8	2.1
17	5.8	22	99	25	24	94	400	53	18	6.4	3.3	2.3
18	4.9	21	70	23	24	100	300	49	15	5.5	8.3	2.5
19	4.0	20	54	22	23	310	200	46	15	5.2	7.9	2.3
20	3.8	18	46	21	24	340	180	49	13	5.5	5.2	2.4
21	4.2	18	41	21	28	370	170	46	12	5.8	3.6	8.3
22	3.8	22	38	21	34	260	170	44	11	6.1	3.1	24
23	3.6	36	37	21	32	220	235	60	9.2	4.4	3.1	7.9
24	3.3	32	38	30	29	170	425	50	5.2	6.1	2.7	5.2
25	3.3	28	56	96	27	130	534	43	4.9	6.1	2.6	4.0
26	3.1	26	92	80	24	110	360	44	4.9	4.7	2.6	3.3
27	3.0	25	69	60	23	90	266	47	4.9	3.8	4.4	3.1
28	3.0	24	82	50	23	130	239	41	32	3.4	3.3	2.8
29	3.0	60	71	44	---	98	210	40	30	3.4	14	2.6
30	2.8	55	60	39	---	82	207	53	21	3.6	11	2.6
31	2.8	---	52	36	---	74	---	46	---	3.6	11	---
TOTAL	108.6	721.0	1561	1105	1587	3961	6049	2681	715.1	218.3	206.2	137.4
MEAN	3.50	24.0	50.4	35.6	56.7	128	202	86.5	23.8	7.04	6.65	4.58
MAX	6.8	60	127	96	450	370	600	251	50	16	26	24
MIN	2.4	3.3	28	21	23	28	62	40	4.9	3.4	2.6	2.1
CFSM	.11	.72	1.52	1.07	1.71	3.86	6.08	2.61	.72	.21	.20	.14
IN.	.12	.81	1.75	1.24	1.78	4.44	6.78	3.00	.80	.24	.23	.15
CAL YR 1982	TOTAL	18404.9	MEAN	50.4	MAX	650	MIN	2.4	CFSM	1.52	IN	20.62
WTR YR 1983	TOTAL	19050.6	MEAN	52.2	MAX	600	MIN	2.1	CFSM	1.57	IN	21.35

## DELAWARE RIVER BASIN

01417000 EAST BRANCH DELAWARE RIVER AT DOWNSVILLE, NY

LOCATION.--Lat 42°04'30", long 74°58'36", Delaware County, Hydrologic Unit 02040102, on left bank 0.5 mi downstream from Downs ville Dam, at downstream end of outlet channel of Pepacton Reservoir, and 1.0 mi east of Downs ville.

DRAINAGE AREA.--372 mi<sup>2</sup>.

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

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,094.92 ft Board of Water Supply, City of New York datum. Prior to Sept. 26, 1941, nonrecording gage, and Sept. 26, 1941, to June 27, 1955, water-stage recorder, at site 0.8 mi downstream at datum 7.03 ft lower.

REMARKS.--Records good. Subsequent to September 1954, entire flow from drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply (see Reservoirs in Delaware River Basin). 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, 23,900 ft<sup>3</sup>/s Nov. 26, 1950, gage height, 14.52 ft, site and datum then in use, from rating curve extended above 12,000 ft<sup>3</sup>/s; minimum, 0.3 ft<sup>3</sup>/s Oct. 11, 1954; minimum daily, 0.6 ft<sup>3</sup>/s Oct. 10, 1954; minimum gage height, 1.39 ft Jan. 17, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 9, 1903, reached a stage of about 16 ft (at former datum).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,350 ft<sup>3</sup>/s Apr. 27, gage height, 6.19 ft; minimum, 6.7 ft<sup>3</sup>/s Mar. 18, gage height, 2.02 ft; minimum daily, 6.9 ft<sup>3</sup>/s Mar. 4-6, 8-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	627	8.3	8.6	8.6	8.9	7.5	3090	74	68	81	72
2	97	627	8.0	8.6	8.9	8.9	7.5	3270	74	81	81	72
3	97	500	8.0	8.6	10	8.0	7.7	2910	70	111	79	72
4	97	212	8.3	8.6	9.5	6.9	7.5	2800	147	133	79	88
5	97	286	8.3	8.6	9.5	6.9	7.5	2210	330	106	90	98
6	97	574	8.6	8.6	9.5	6.9	7.5	1770	374	74	103	98
7	98	612	24	8.6	9.5	7.2	11	1540	330	74	103	85
8	100	612	40	8.3	9.2	6.9	19	1450	229	70	103	72
9	100	618	40	8.3	9.2	6.9	18	1400	154	65	90	74
10	100	618	40	8.3	9.2	7.2	19	1050	103	65	77	74
11	100	613	38	8.6	9.2	7.2	19	757	81	68	77	74
12	100	612	37	8.6	9.2	7.2	45	608	79	85	77	68
13	100	612	38	8.3	9.2	7.2	72	484	77	103	77	70
14	207	612	43	8.3	8.9	7.2	68	297	88	106	77	72
15	320	613	48	8.3	8.9	7.2	68	219	100	103	77	72
16	318	559	30	8.3	8.9	7.2	77	224	108	111	72	72
17	317	506	8.9	8.3	8.9	7.2	77	147	98	106	74	72
18	472	561	8.6	8.3	8.9	7.2	77	90	98	90	77	72
19	650	617	8.3	8.3	9.2	7.5	74	85	98	74	72	72
20	682	600	8.3	8.3	8.9	7.5	74	79	81	79	70	72
21	677	600	8.3	8.3	8.9	7.7	77	74	65	79	72	72
22	650	463	8.3	8.3	8.9	7.7	74	72	66	81	72	72
23	624	164	8.6	8.9	9.2	7.5	72	77	85	81	72	72
24	625	116	8.6	8.9	8.9	7.2	72	72	100	81	77	72
25	624	145	8.6	8.6	8.9	7.2	643	77	103	81	72	72
26	624	177	8.9	8.6	8.9	7.2	3740	77	100	81	72	72
27	624	237	8.6	8.6	8.9	7.5	4090	77	100	81	72	72
28	624	116	8.9	8.6	8.9	7.7	3930	77	90	81	72	72
29	624	8.0	8.6	8.6	---	7.5	3850	77	72	81	72	68
30	624	7.8	8.6	8.6	---	7.5	3660	77	68	81	72	66
31	624	---	8.6	8.6	---	7.5	---	77	---	81	72	---
TOTAL	11190	13224.8	556.2	263.3	254.8	229.5	20971.2	25314	3642	2661	2433	2231
MEAN	361	441	17.9	8.49	9.10	7.40	699	817	121	85.8	78.5	74.4
MAX	682	627	48	8.9	10	8.9	4090	3270	374	133	103	98
MIN	97	7.8	8.0	8.3	8.6	6.9	7.5	72	65	65	70	66
CAL YR 1982	TOTAL	53306.0	MEAN	146	MAX	1060	MIN	7.8				
WTR YR 1983	TOTAL	82970.8	MEAN	227	MAX	4090	MIN	6.9				

## DELAWARE RIVER

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01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY

LOCATION.--Lat 42°01'28", long 75°07'10", Delaware County, Hydrologic Unit 02040102, on right bank 800 ft downstream from Baxter Brook, and 1,100 ft downstream from highway bridge at Harvard. Water-quality sampling site at discharge station.

DRAINAGE AREA.--458 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to June 1967, November 1977 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,007.41 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 12, 1958, water-stage recorder 1,100 ft upstream at datum 0.65 ft higher.

REMARKS.--Records good except those for winter periods, which are poor. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton 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, 31,400 ft<sup>3</sup>/s Sept. 22, 1938, gage height, 16.93 ft site and datum then in use, from rating curve extended above 10,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 15.58 ft; minimum, 7.2 ft<sup>3</sup>/s Oct. 13, 1954, gage height, 1.63 ft site and datum then in use; minimum daily, 7.6 ft<sup>3</sup>/s Oct. 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,980 ft<sup>3</sup>/s Apr. 27, gage height, 7.97 ft; minimum, 49 ft<sup>3</sup>/s Jan. 13, gage height 1.58 ft, result of freezeup, but may have been less during period of ice effect; minimum daily, 57 ft<sup>3</sup>/s Jan. 21-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	669	213	245	110	99	198	3390	391	145	101	81
2	108	675	202	209	110	103	181	3630	350	101	111	77
3	108	636	184	150	824	114	181	3320	320	99	92	75
4	108	415	171	130	879	111	225	3190	370	94	88	77
5	108	363	155	110	500	124	202	2650	500	88	88	101
6	108	698	145	96	300	139	191	2120	600	83	108	99
7	108	727	133	90	210	191	188	1780	500	83	108	96
8	111	709	142	84	180	245	229	1630	400	90	99	74
9	111	703	136	82	150	294	301	1650	300	116	88	75
10	111	607	101	80	130	298	301	1210	170	114	99	75
11	111	698	86	124	120	363	599	964	140	110	92	74
12	111	703	82	122	110	363	541	812	130	110	83	72
13	116	903	78	85	100	325	492	675	130	130	81	68
14	133	818	76	74	100	305	429	516	155	120	77	72
15	350	787	127	68	148	294	382	424	167	119	75	72
16	359	744	424	64	127	267	1600	420	171	119	88	74
17	359	642	478	62	110	250	1360	333	167	116	83	74
18	405	653	350	60	100	237	910	250	148	114	75	72
19	664	727	240	58	100	254	680	209	158	83	74	72
20	721	715	180	58	100	309	540	217	145	85	75	72
21	727	703	150	57	100	350	460	202	111	94	75	111
22	709	686	140	57	100	567	400	191	103	96	74	85
23	669	451	130	57	130	488	480	225	106	90	74	77
24	669	225	130	258	127	410	710	213	124	108	75	75
25	675	150	130	221	110	337	1870	195	130	99	75	74
26	675	190	455	191	100	276	4130	245	122	90	77	74
27	669	230	451	171	92	237	4780	350	108	85	79	72
28	664	180	474	164	84	276	4430	321	108	85	75	72
29	669	140	410	140	---	298	4270	329	130	85	106	66
30	664	237	333	130	---	241	4020	415	158	88	88	70
31	664	---	285	120	---	213	---	410	---	85	83	---
TOTAL	11872	16784	6791	3617	5351	8378	35280	32486	6612	3124	2666	2328
MEAN	383	559	219	117	191	270	1176	1048	220	101	86.0	77.6
MAX	727	903	478	258	879	567	4780	3630	600	145	111	111
MIN	108	140	76	57	84	99	181	191	103	83	74	66
CAL YR 1982	TOTAL	102580	MEAN	281	MAX	1590	MIN	76				
WTR YR 1983	TOTAL	135289	MEAN	371	MAX	4780	MIN	57				

## DELAWARE RIVER BASIN

01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY--Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1978 to current year.

INSTRUMENTATION.--Temperature recorder since June 1978.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1978, 1981, and 1982), 28.0°C June 30, 1981; minimum, freezing point on many days during winter periods.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Minimum, freezing point on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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



01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	13.0	9.5	11.0	---	---	---	---	---	---	10.5	7.0	8.5
2	---	---	---	---	---	---	---	---	---	10.0	6.5	8.5
3	---	---	---	---	---	---	---	---	---	11.0	7.5	9.0
4	---	---	---	---	---	---	---	---	---	9.0	7.5	8.5
5	---	---	---	---	---	---	---	---	---	9.5	7.0	8.0
6	---	---	---	---	---	---	---	---	---	10.0	7.0	8.5
7	---	---	---	10.5	2.0	7.5	---	---	---	9.5	7.0	8.5
8	---	---	---	11.5	7.0	9.0	---	---	---	9.0	6.0	7.5
9	---	---	---	11.0	5.5	9.0	---	---	---	9.5	6.5	8.0
10	---	---	---	11.0	7.0	9.0	---	---	---	10.5	7.0	8.5
11	---	---	---	11.0	7.0	8.5	---	---	---	11.5	8.5	9.5
12	---	---	---	12.0	7.5	9.5	---	---	---	9.5	7.5	8.5
13	---	---	---	11.5	9.0	10.5	---	---	---	7.5	5.5	6.5
14	---	---	---	---	---	---	---	---	---	7.5	4.0	5.5
15	---	---	---	---	---	---	---	---	---	7.0	3.5	5.0
16	---	---	---	---	---	---	---	---	---	5.5	3.5	4.5
17	---	---	---	---	---	---	---	---	---	6.5	4.0	5.0
18	---	---	---	---	---	---	---	---	---	7.5	4.5	6.0
19	---	---	---	---	---	---	---	---	---	9.0	5.5	7.0
20	---	---	---	---	---	---	---	---	---	9.5	7.0	8.0
21	---	---	---	---	---	---	---	---	---	8.0	6.5	7.5
22	---	---	---	---	---	---	---	---	---	6.5	4.0	5.5
23	---	---	---	---	---	---	---	---	---	4.5	2.5	3.5
24	---	---	---	---	---	---	---	---	---	5.0	2.5	3.5
25	---	---	---	---	---	---	---	---	---	5.0	2.0	3.5
26	---	---	---	---	---	---	---	---	---	4.5	2.0	3.0
27	---	---	---	---	---	---	---	---	---	6.5	3.0	4.5
28	---	---	---	---	---	---	---	---	---	7.0	4.0	5.5
29	---	---	---	---	---	---	---	---	---	6.5	3.5	5.0
30	---	---	---	---	---	---	---	---	---	4.5	3.5	4.0
31	---	---	---	---	---	---	9.0	7.5	8.5	---	---	---
MONTH										11.5	2.0	6.5

## DELAWARE RIVER BASIN

01418980 HODGE POND NEAR DEBRUCE, NY

LOCATION.--Lat 41°58'30", long 74°42'45", Sullivan County, Hydrologic Unit 02040102, at point 10 ft from pond outlet at end of private dirt road, 2.0 mi north of Mongaup Pond Road and 4.4 mi north of Debruce.

DRAINAGE AREA.--0.24 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1983.

CHEMICAL DATA: 1983 (a).

MINOR ELEMENT DATA: 1983 (a).

ORGANIC DATA: OC--1983 (a)

REMARKS.--All cation analysis were performed on water samples which passed through a 0.1-micrometer membrane filter; while anion analysis were performed on water samples which passed through the standard 0.45-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)
AUG 16...	0840	22	6.9	20.5	13	5.0	.1	3.5

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
AUG 16...	1.0	.5	.4	4.0	2.8	5.1	.7	.05	<.10

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 16...	.3	13	<.05	.142	<.060	20	44	28	3.8

## DELAWARE RIVER BASIN

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01420500 BEAVER KILL AT COOKS FALLS, NY

LOCATION.--Lat 41°56'47", long 74°58'48", Delaware County, Hydrologic Unit 02040102, on left bank 66 ft downstream from road bridge in Cooks Falls, and 5.5 mi downstream from Willowemoc Creek.

DRAINAGE AREA.--241 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1913 to current year.

REVISED RECORDS.--WSP 521: Drainage area. WSP 781: 1933(M). WSP 891: 1936-39(M). WSP 1202: 1950. WSP 1232: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 1,151.70 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1933, nonrecording gage at site 125 ft upstream at same datum.

REMARKS.--Records good except those for winter periods, which are poor. Slight diversion at headwaters into Cooper Lake for water supply of Kingston.

AVERAGE DISCHARGE.--69 years (1915-83), 558 ft<sup>3</sup>/s, 31.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,600 ft<sup>3</sup>/s Mar. 31, 1951, gage height, 16.02 ft, from rating curve extended above 13,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 15.52 ft; minimum, 16 ft<sup>3</sup>/s Nov. 22, 23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	1330	7,490	9.02	Apr. 16	1200	*14,400	*11.67

Minimum discharge, 40 ft<sup>3</sup>/s Aug. 26, gage height, 0.89 ft; minimum gage height, 0.78 ft Oct. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	46	592	596	410	277	601	1390	996	378	90	64
2	52	47	500	532	400	363	562	1930	795	329	108	56
3	48	47	446	486	4750	483	785	1540	668	282	93	51
4	47	53	417	408	3060	466	1060	1840	1030	267	84	47
5	47	235	386	402	1100	579	915	1420	898	324	81	47
6	47	203	383	395	860	645	775	1170	711	265	79	47
7	46	143	360	366	720	1090	730	996	870	233	74	45
8	47	121	324	343	640	1250	1040	960	673	207	71	44
9	47	110	260	300	580	1390	1180	1070	550	193	68	44
10	48	103	220	303	520	1290	1870	854	486	179	63	45
11	48	99	200	806	460	1430	2400	745	446	166	87	46
12	45	102	190	711	430	1340	1640	668	405	159	143	48
13	49	427	180	476	420	1100	1270	609	360	155	133	50
14	68	395	170	330	400	978	1040	550	329	145	85	52
15	70	282	160	290	390	972	1080	567	332	140	67	50
16	62	242	1420	260	380	937	9250	640	310	183	59	48
17	59	211	1410	240	386	926	4260	528	411	146	55	51
18	56	197	700	230	372	843	2760	466	329	130	62	53
19	53	187	600	210	349	1990	2070	433	308	122	67	53
20	52	177	520	200	329	2190	1700	479	346	118	56	52
21	52	177	470	190	321	2270	1400	507	287	121	49	63
22	52	193	420	190	337	2540	1310	456	249	145	45	233
23	50	436	400	190	363	1680	1530	711	222	119	48	136
24	47	439	390	1500	351	1290	2600	592	205	128	44	93
25	45	383	380	900	326	1060	4150	496	189	132	41	75
26	45	310	1250	800	303	865	2760	459	173	113	45	65
27	44	280	1040	640	250	765	2110	514	185	101	98	63
28	44	260	1030	560	240	909	1940	532	1250	94	65	59
29	43	450	990	500	---	892	1670	539	1300	90	63	53
30	43	806	801	450	---	740	1680	1240	539	89	98	52
31	43	---	668	430	---	654	---	1160	---	87	73	---
TOTAL	1554	7161	17277	14234	19447	34204	58138	26061	15852	5340	2294	1885
MEAN	50.1	239	557	459	695	1103	1938	841	528	172	74.0	62.8
MAX	70	806	1420	1500	4750	2540	9250	1930	1300	378	143	233
MIN	43	46	160	190	240	277	562	433	173	87	41	44
CFSM	.21	.99	2.31	1.91	2.88	4.58	8.04	3.49	2.19	.71	.31	.26
IN.	.24	1.11	2.67	2.20	3.00	5.28	8.97	4.02	2.45	.82	.35	.29

CAL YR 1982	TOTAL	170820	MEAN	468	MAX	7220	MIN	43	CFSM	1.94	IN	26.37
WTR YR 1983	TOTAL	203447	MEAN	557	MAX	9250	MIN	41	CFSM	2.31	IN	31.40

## DELAWARE RIVER BASIN

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY

LOCATION.--Lat 41°58'23", long 75°10'28", Delaware County, Hydrologic Unit 02040102, on left bank 3,000 ft upstream from bridge on County highway 28 at Fishs Eddy, 0.6 mi upstream from Fish Creek, 4.2 mi downstream from Beaver Kill, and 11 mi upstream from the confluence of East and West Branches near Hancock. Water-quality sampling site at discharge station.

DRAINAGE AREA.--784 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 955.96 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1928, nonrecording gage and Sept. 28, 1928 to Nov. 1, 1967, water-stage recorder at site 3,000 ft downstream at datum 5.0 ft lower.

REMARKS.--Records good except those for winter periods, which are poor. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton 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, 53,300 ft<sup>3</sup>/s Aug. 24, 1933, gage height, 20.60 ft at former site and datum, from rating curve extended above 22,000 ft<sup>3</sup>/s; minimum, 52 ft<sup>3</sup>/s July 23, 1964, gage height, 1.16 ft at former site and datum; minimum daily, 68 ft<sup>3</sup>/s Aug. 29, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 9, 1903, reached a stage of 23.6 ft at former site and datum, from description obtained in April 1939, from local residents who had experienced the flood (discharge, about 70,000 ft<sup>3</sup>/s, from rating curve extended above 22,000 ft<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,000 ft<sup>3</sup>/s Apr. 16, gage height, 10.49 ft; minimum discharge, 124 ft<sup>3</sup>/s, Sept. 20; minimum gage height, 2.74 ft Oct. 5, 6, 7, 10, Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	704	972	1000	660	486	964	5130	1560	618	216	196
2	166	704	861	800	640	536	903	5970	1340	544	281	181
3	162	696	780	660	5500	711	1050	5290	1140	499	224	170
4	159	523	726	540	4750	704	1350	5420	1430	481	200	167
5	159	631	681	450	2000	812	1230	4480	1500	537	192	181
6	155	903	652	420	1400	938	1110	3680	1380	451	204	178
7	155	870	624	390	1100	1270	1060	3110	1510	388	208	174
8	159	828	576	370	900	1610	1400	2860	1240	350	204	156
9	162	804	460	350	780	1790	1650	3050	1020	320	192	143
10	162	788	400	350	700	1680	2220	2390	883	296	170	143
11	162	780	370	929	640	1930	3470	1980	789	272	178	140
12	159	788	350	1010	600	1860	2520	1690	727	263	286	136
13	169	1230	340	600	580	1580	2040	1470	661	277	300	133
14	188	1240	330	450	600	1420	1680	1260	612	268	241	133
15	398	1080	320	360	800	1370	1700	1150	611	272	204	130
16	437	1010	1000	320	700	1310	11900	1230	594	300	185	130
17	432	878	2190	290	640	1290	7140	1040	666	291	174	133
18	432	853	1100	280	600	1200	4580	903	588	263	200	130
19	681	903	860	270	560	1990	3350	820	576	228	208	130
20	741	895	720	260	520	2540	2730	845	588	216	181	130
21	749	870	660	250	500	2560	2260	861	521	237	167	146
22	741	895	600	250	500	3370	2040	804	463	272	163	330
23	704	929	560	250	617	2390	2350	1030	428	233	163	259
24	704	788	540	2000	610	1890	3920	964	419	277	160	189
25	704	800	788	1600	576	1560	7270	845	410	291	156	163
26	696	640	1790	1230	490	1290	7660	828	389	237	160	153
27	696	773	1800	1020	450	1170	7460	990	383	212	233	146
28	696	640	1740	900	430	1320	6800	1010	1160	200	200	146
29	696	700	1650	780	---	1320	6320	981	1770	196	208	140
30	696	1160	1360	720	---	1130	6030	1700	829	196	241	133
31	689	---	1170	680	---	1040	---	1740	---	196	220	---
TOTAL	13182	25303	26970	19779	28843	46067	106157	65521	26187	9681	6319	4819
MEAN	425	843	870	638	1030	1486	3539	2114	873	312	204	161
MAX	749	1240	2190	2000	5500	3370	11900	5970	1770	618	300	330
MIN	155	523	320	250	430	486	903	804	383	196	156	130
CAL YR 1982	TOTAL	321942	MEAN	882	MAX	9100	MIN	155				
WTR YR 1983	TOTAL	378828	MEAN	1038	MAX	11900	MIN	130				



## DELAWARE RIVER BASIN

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01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1968 to current year.  
 CHEMICAL DATA: 1958-59 (d), 1970 (b), 1971-74 (d), 1975 (c).  
 MINOR ELEMENTS DATA: 1971-74 (a).  
 ORGANIC DATA: OC--1974 (a), 1975 (c).  
 NUTRIENT DATA: 1971-75 (d).  
 BIOLOGICAL DATA:  
 Bacteria--1971 (c), 1973-75 (c).

PERIOD OF DAILY RECORD.--  
 WATER TEMPERATURES: November 1967 to current year.

INSTRUMENTATION.--Temperature recorder since November 1967.

REMARKS.--No record Dec. 3-16, July 6-Aug. 10, 1983, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--  
 WATER TEMPERATURES: Maximum (water years 1968-75, 1978, 1980-82), 31.5°C Aug. 2, 1975; minimum (water years 1968-76, 1978-79, 1981-83), freezing point on many days during winter periods, except water year 1978.

EXTREMES FOR CURRENT YEAR.--  
 WATER TEMPERATURES: Minimum, freezing point on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

## DELAWARE RIVER BASIN

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	1.0	1.5	4.5	2.0	3.0	8.0	3.5	5.5	8.5	8.0	8.5
2	2.0	1.0	1.5	6.5	3.5	5.0	7.0	4.0	5.5	10.0	9.0	9.5
3	2.0	1.5	1.5	6.5	4.0	5.0	6.0	4.5	5.0	10.5	9.0	9.5
4	2.0	.5	1.5	5.5	3.5	4.5	6.0	5.0	5.5	9.5	8.0	9.0
5	.5	.0	.0	6.0	4.0	5.0	7.0	5.5	6.0	9.0	7.0	8.0
6	.5	.0	.0	5.0	4.0	4.5	6.5	4.5	5.5	11.0	7.0	9.0
7	.5	.0	.0	5.5	4.5	5.0	7.0	6.5	6.5	12.5	7.5	10.0
8	.0	.0	.0	4.5	3.5	4.0	7.5	7.0	7.0	10.5	9.5	10.0
9	.5	.0	.0	4.5	3.5	4.0	10.5	6.5	8.5	9.5	7.5	8.5
10	.0	.0	.0	4.5	3.5	4.5	9.0	6.5	7.5	7.5	6.5	7.0
11	.0	.0	.0	4.0	3.0	3.5	6.5	6.0	6.5	8.0	6.0	7.0
12	.0	.0	.0	3.5	2.0	2.5	6.0	5.5	6.0	9.5	7.0	8.5
13	.5	.0	.0	5.0	1.5	3.0	9.5	5.0	7.0	13.5	7.5	10.5
14	.5	.0	.0	5.5	2.5	4.0	9.5	6.5	8.0	16.0	10.5	13.5
15	.5	.0	.0	5.0	4.0	4.5	7.5	7.0	7.0	14.5	12.0	13.0
16	.0	.0	.0	7.0	4.0	5.5	7.0	4.0	5.0	12.0	9.5	11.0
17	1.0	.0	.5	5.5	4.0	4.5	7.0	4.0	5.5	12.5	7.5	10.0
18	4.0	1.0	2.0	5.5	4.0	5.0	5.5	5.0	5.0	14.0	8.5	11.5
19	4.0	1.0	2.5	7.0	6.0	6.5	5.5	2.5	4.0	12.0	10.5	11.0
20	4.0	1.0	2.5	6.5	5.0	6.0	3.0	2.5	3.0	13.5	11.0	12.0
21	4.0	1.0	2.5	5.0	4.5	5.0	5.0	3.0	4.0	14.5	12.0	13.5
22	5.5	2.5	4.0	5.0	3.0	4.5	8.5	4.0	6.0	15.0	12.5	13.5
23	4.0	3.0	3.5	3.0	1.0	1.5	9.5	5.0	7.5	17.0	13.0	15.0
24	3.5	2.0	3.0	3.5	1.0	2.0	8.0	5.5	6.5	16.0	14.5	15.0
25	3.5	2.0	2.5	4.0	1.0	2.5	5.5	4.5	4.5	17.5	12.5	15.0
26	2.0	.5	1.0	4.5	1.0	3.0	7.5	4.5	5.5	16.0	13.5	15.0
27	2.5	.0	1.0	3.5	2.5	2.5	7.5	5.0	6.0	14.0	12.0	13.0
28	3.0	.5	2.0	3.5	2.5	3.0	9.5	6.0	7.5	15.0	10.0	12.5
29	---	---	---	5.5	3.5	4.0	9.0	7.0	8.0	13.5	11.5	12.0
30	---	---	---	5.0	1.5	3.5	9.5	7.5	8.5	14.0	11.5	12.5
31	---	---	---	6.0	2.5	4.0	---	---	---	13.0	11.5	12.0
MONTH	5.5	.0	1.0	7.0	1.0	4.0	10.5	2.5	6.0	17.5	6.0	11.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	13.0	10.5	12.0	20.5	18.5	19.5	---	---	---	24.0	19.5	21.5
2	15.0	10.5	13.0	23.5	18.5	21.0	---	---	---	24.0	19.0	21.5
3	16.0	12.0	14.0	27.0	21.0	24.0	---	---	---	24.5	19.5	22.0
4	15.0	13.5	14.0	26.0	23.0	24.5	---	---	---	22.0	20.0	21.0
5	16.5	12.5	14.5	24.5	21.0	22.0	---	---	---	24.0	19.5	21.5
6	17.5	14.0	16.0	---	---	---	---	---	---	25.0	21.0	23.0
7	18.0	15.0	16.0	---	---	---	---	---	---	24.5	20.5	22.5
8	18.0	14.5	16.0	---	---	---	---	---	---	22.0	18.5	20.0
9	17.5	12.5	15.0	---	---	---	---	---	---	23.0	18.0	20.5
10	19.0	13.5	16.0	---	---	---	---	---	---	24.0	19.0	21.5
11	21.0	15.5	18.0	---	---	---	22.0	20.0	20.5	25.0	21.0	23.0
12	21.5	16.5	19.0	---	---	---	20.0	17.0	18.5	23.0	20.0	21.5
13	23.0	18.0	20.5	---	---	---	21.5	16.0	18.5	20.0	17.0	18.5
14	24.0	18.5	21.5	---	---	---	23.0	17.0	20.0	19.5	15.0	17.0
15	24.0	20.0	22.5	---	---	---	23.5	18.0	21.0	19.0	14.5	16.5
16	23.0	19.5	21.5	---	---	---	25.0	19.5	22.0	16.0	14.0	15.0
17	23.5	19.0	21.5	---	---	---	24.5	20.0	22.5	17.0	14.5	15.5
18	23.5	20.0	21.5	---	---	---	24.5	21.0	22.5	18.5	15.0	17.0
19	22.0	19.5	21.0	---	---	---	26.5	21.5	23.5	21.0	16.0	18.5
20	22.0	19.0	20.0	---	---	---	26.5	21.5	24.0	22.5	19.0	20.5
21	21.0	17.5	19.0	---	---	---	25.0	19.5	22.5	20.5	17.5	19.5
22	24.5	18.0	20.5	---	---	---	22.5	19.5	21.0	17.5	15.0	16.0
23	25.0	19.0	22.0	---	---	---	25.5	20.0	22.5	14.5	13.0	14.0
24	25.0	20.5	23.0	---	---	---	25.0	19.5	22.5	15.0	12.0	13.5
25	25.0	20.0	22.0	---	---	---	24.0	20.0	22.0	16.0	11.5	13.5
26	24.5	18.0	20.0	---	---	---	25.5	20.5	23.0	15.0	11.5	13.0
27	24.5	18.5	21.0	---	---	---	26.0	22.5	24.0	17.0	12.5	14.5
28	22.5	16.5	19.5	---	---	---	27.5	23.0	25.0	19.0	14.0	16.0
29	20.5	15.5	18.0	---	---	---	26.5	23.5	25.0	18.0	13.5	15.5
30	22.0	17.0	19.5	---	---	---	24.5	21.5	23.0	15.0	13.5	14.5
31	---	---	---	---	---	---	22.5	21.0	21.5	---	---	---
MONTH	25.0	10.5	18.5				27.5	16.0	22.0	25.0	11.5	18.5

## DELAWARE RIVER BASIN

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01423000 WEST BRANCH DELAWARE RIVER AT WALTON, NY

LOCATION.--Lat 42°09'58", long 75°08'26", Delaware County, Hydrologic Unit 02040101, on left bank at west end of fairgrounds at Walton, and 100 ft downstream from West Brook.

DRAINAGE AREA.--332 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORD.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,190.30 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--33 years, 586 ft<sup>3</sup>/s, 23.97 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,900 ft<sup>3</sup>/s Feb. 11, 1981; gage height, 14.34 ft; minimum, 12 ft<sup>3</sup>/s Sept. 15, Nov. 22, 1964; minimum gage height, 1.86 ft Nov. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 16	1315	5,920	9.33	Apr. 25	0845	*8,400	*10.67

Minimum discharge, 24 ft<sup>3</sup>/s Oct. 30, 31, gage height, 2.29 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	27	407	520	340	356	715	2880	794	348	78	73
2	33	27	375	420	400	383	642	3760	694	316	154	67
3	31	27	345	370	3240	416	800	2690	617	273	124	58
4	31	46	327	340	2400	379	847	2940	699	236	87	52
5	29	371	302	310	1300	436	699	2100	627	214	73	50
6	29	217	289	290	900	444	642	1680	579	196	67	48
7	28	135	273	270	740	579	642	1350	777	179	62	45
8	29	108	242	260	620	647	947	1230	569	156	56	42
9	29	91	190	240	560	859	841	1430	485	145	52	40
10	29	83	150	240	500	811	1180	1050	432	137	48	42
11	27	74	140	412	460	940	2110	902	391	124	51	40
12	26	77	130	300	430	993	1590	805	348	127	88	39
13	29	260	130	260	410	890	1360	726	312	111	104	39
14	31	254	130	230	380	859	1120	647	279	103	74	38
15	34	181	120	210	360	902	1220	765	330	96	62	36
16	39	156	765	200	350	877	4740	1060	330	108	54	35
17	42	139	921	190	340	953	3720	743	632	91	49	36
18	39	127	593	180	340	1010	3160	647	416	84	85	36
19	36	118	460	170	340	1310	2510	603	617	80	133	39
20	34	111	420	160	350	1560	2170	637	412	74	83	37
21	32	111	400	150	400	1810	1810	607	327	90	64	55
22	30	122	390	150	485	2370	1730	546	270	90	55	149
23	28	242	380	250	528	1700	2330	627	228	80	51	109
24	28	260	412	700	493	1390	4010	588	198	87	49	69
25	27	230	617	640	436	1150	7430	502	179	98	45	55
26	26	210	1060	560	370	940	4950	542	158	94	45	48
27	26	200	800	500	330	859	4240	871	152	74	46	44
28	26	201	896	450	367	1240	3940	678	743	65	46	40
29	26	407	823	400	---	1120	3390	642	953	62	55	38
30	25	524	699	360	---	835	3770	823	452	61	69	37
31	25	---	593	350	---	771	---	835	---	61	72	---
TOTAL	939	5136	13779	10082	18169	29789	69255	35906	14000	4060	2181	1536
MEAN	30.3	171	444	325	649	961	2309	1158	467	131	70.4	51.2
MAX	42	524	1060	700	3240	2370	7430	3760	953	348	154	149
MIN	25	27	120	150	330	356	642	502	152	61	45	35
CFSM	.09	.52	1.34	.98	1.96	2.90	6.96	3.49	1.41	.40	.21	.15
IN.	.11	.58	1.54	1.13	2.04	3.34	7.76	4.02	1.57	.45	.24	.17
CAL YR 1982	TOTAL	171684	MEAN	470	MAX	6740	MIN	25	CFSM	1.42	IN	19.24
WTR YR 1983	TOTAL	204832	MEAN	561	MAX	7430	MIN	25	CFSM	1.69	IN	22.95

## DELAWARE RIVER BASIN

## 01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY

LOCATION.--Lat 42°04'29", long 75°23'47", Delaware County, Hydrologic Unit 02040101, on right bank at Stilesville, 0.5 mi upstream from Cold Spring Creek, 1.4 mi downstream from Cannonsville Dam, and 2.0 mi northeast of Deposit. Water-quality sampling site at discharge station.

DRAINAGE AREA.--456 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1952 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 992.23 ft National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York). Prior to Oct. 1, 1964, at site 600 ft downstream at datum 1.37 ft higher.

REMARKS.--Records good above 700 ft<sup>3</sup>/s, poor below. Subsequent to October 1963, entire flow from 454 mi<sup>2</sup> of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply (see Reservoirs in Delaware River Basin). Remainder of flow (except for conservation releases and spill) impounded for release during period of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft<sup>3</sup>/s Jan. 22, 1959, gage height, 9.01 ft, site and datum then in use; maximum gage height, 12.19 ft Mar. 14, 1977; minimum daily, 7.2 ft<sup>3</sup>/s Feb. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,440 ft<sup>3</sup>/s Apr. 26, gage height, 10.91 ft; minimum daily, 15 ft<sup>3</sup>/s Dec. 4-6, and many days in March and April; minimum gage height, 2.70 ft Feb. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1460	802	16	18	19	21	15	4520	1230	335	718	866
2	1460	494	16	18	20	21	15	4600	1170	335	770	1170
3	1270	340	16	18	33	21	17	4390	1080	335	858	1240
4	1290	146	15	18	29	21	16	4120	1060	335	999	984
5	1300	59	15	18	24	22	15	3670	1030	335	1230	726
6	1180	45	15	18	22	21	15	3070	953	335	1170	638
7	1230	77	48	18	22	23	16	2500	1010	325	868	539
8	1460	105	159	18	21	22	19	2130	971	335	870	492
9	1500	397	104	18	21	22	17	2090	993	353	873	821
10	1290	507	166	18	21	24	21	1880	713	335	962	807
11	1150	422	277	19	20	26	21	1650	648	335	1050	823
12	1060	328	320	18	21	25	32	1460	586	335	709	682
13	486	116	454	18	20	24	51	1310	665	335	320	990
14	967	159	512	18	20	19	51	1170	635	335	389	1190
15	1240	52	438	18	20	15	55	1110	475	944	467	1070
16	1210	81	302	18	20	15	79	1250	402	919	865	1250
17	863	194	27	18	21	15	69	1210	405	349	957	1120
18	876	238	17	17	21	15	62	1090	390	484	1080	965
19	580	263	17	17	21	15	379	999	383	335	1100	620
20	274	261	17	17	21	15	1420	950	376	335	1120	679
21	430	238	17	17	21	17	1970	931	337	335	1190	595
22	790	202	17	17	21	17	2090	885	335	598	1140	342
23	838	127	17	19	21	16	2370	908	335	925	1230	687
24	520	69	17	19	21	16	3340	898	335	360	1250	925
25	540	53	17	19	21	15	6200	845	440	515	1250	534
26	610	45	21	19	21	15	7100	829	335	349	1270	447
27	646	44	20	19	21	15	6310	1050	335	330	1200	672
28	646	39	21	19	21	17	5530	1080	345	330	849	871
29	730	17	20	18	---	15	4940	1070	337	814	665	942
30	814	16	19	19	---	15	4740	1120	335	1130	955	1260
31	730	---	19	19	---	15	---	1200	---	635	909	---
TOTAL	29440	5936	3156	562	605	575	46975	55985	18644	14385	29283	24947
MEAN	950	198	102	18.1	21.6	18.5	1566	1806	621	464	945	832
MAX	1500	802	512	19	33	26	7100	4600	1230	1130	1270	1260
MIN	274	16	15	17	19	15	15	829	335	325	320	342
CAL YR 1982	TOTAL	188351	MEAN	516	MAX	3080	MIN	15				
WTR YR 1983	TOTAL	230493	MEAN	631	MAX	7100	MIN	15				



## DELAWARE RIVER BASIN

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01425000 WEST BRANCH DELAWARE RIVER- AT STILESVILLE, NY--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL DATA: 1959-60 (a) unpublished; 1969 (a); 1970 (a) unpublished; 1971, 1973 (b); 1974 (d); 1975 (b).

MINOR ELEMENTS DATA: 1971 (b).

NUTRIENT DATA: 1970 (a) unpublished; 1971, 1973 (b); 1974 (d); 1975 (b).

BIOLOGICAL DATA:

Bacteria--1973 (b), 1974 (d), 1975 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1962 to current year.

INSTRUMENTATION.--Temperature recorder since October 1962.

REMARKS.--Water temperature is affected by release of water from upstream reservoir.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1963-78, 1980-82), 30.5°C July 2, 1963; minimum, freezing point on many days during winter periods, except 1969 and 1973.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Minimum, freezing point on many days during January and February.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

## DELAWARE RIVER BASIN

01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

## DELAWARE RIVER BASIN

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01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY

LOCATION.--42°00'11", long 75°23'02", Delaware County, Hydrologic Unit 02040101, on left bank at downstream side of bridge on County Highway 56 in Hale Eddy, and 9 mi upstream from confluence of East and West Branches near Hancock. Water-quality sampling site at discharge station.

DRAINAGE AREA.--595 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1912 to current year.

REVISED RECORDS.--WSP 871: 1916. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 946.46 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 8, 1928, nonrecording gage.

REMARKS.--Records good except those for winter periods, which are poor. Subsequent to October 1963, entire flow from 454 mi<sup>2</sup> drainage area controlled by Cannonsville 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, 28,900 ft<sup>3</sup>/s Mar. 22, 1948, gage height, 15.69 ft; maximum gage height, 15.8 ft Sept. 30, 1924, from graph based on gage readings; minimum discharge, 17 ft<sup>3</sup>/s Oct. 20, 1963; minimum gage height, 1.03 ft Aug. 4, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 20.3 ft, from floodmarks, discharge, about 46,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,380 ft<sup>3</sup>/s Apr. 25, gage height, 9.86 ft; minimum discharge, 71 ft<sup>3</sup>/s Nov. 8, but may have been less during period of ice effect; minimum gage height, 1.45 ft Nov. 16; minimum daily discharge, 74 ft<sup>3</sup>/s Jan. 21-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1390	842	218	280	110	155	186	5230	1410	469	680	861
2	1420	592	178	240	110	170	173	5820	1330	446	786	1080
3	1270	464	155	200	2200	178	283	5160	1220	429	849	1230
4	1240	189	140	180	1490	178	283	4690	1240	420	955	1000
5	1300	212	131	160	700	221	246	4060	1190	411	1190	768
6	1160	109	122	150	500	227	230	3370	1110	403	1160	624
7	1210	101	122	140	400	330	256	2800	1290	386	907	603
8	1390	120	266	140	310	330	624	2500	1160	390	849	464
9	1480	297	184	130	280	338	512	2550	1150	398	829	761
10	1280	603	215	130	250	370	743	2240	849	378	941	786
11	1160	488	433	181	230	507	901	1970	768	374	1020	829
12	1070	464	398	165	220	497	674	1750	697	374	968	720
13	668	186	507	130	210	442	551	1560	714	390	446	855
14	635	283	577	110	210	433	442	1390	732	370	437	1140
15	1330	116	556	100	200	437	849	1440	571	849	512	1110
16	1260	116	934	92	200	394	3850	1620	536	982	755	1200
17	914	201	483	86	200	366	1970	1490	582	429	996	1130
18	901	280	250	82	190	346	1370	1350	502	507	1090	955
19	674	312	210	78	190	370	1200	1240	512	366	1050	697
20	362	308	190	76	186	411	2000	1180	474	362	1140	619
21	429	290	180	74	189	433	2450	1130	420	366	1140	674
22	768	327	170	74	215	488	2640	1080	403	608	1150	455
23	855	276	170	76	234	386	3110	1240	394	842	1190	582
24	603	195	170	400	215	334	4850	1220	390	488	1230	914
25	577	176	170	310	201	287	8820	1090	478	464	1220	674
26	646	138	1020	210	173	243	8450	1070	378	442	1250	346
27	663	127	685	150	160	230	7310	1290	386	358	1190	720
28	674	130	774	140	150	287	6260	1270	823	354	894	829
29	732	200	566	130	---	283	5430	1280	708	749	780	927
30	836	308	424	120	---	218	5460	1330	521	1040	855	1220
31	755	---	330	120	---	201	---	1370	---	743	955	---
TOTAL	29652	8450	10928	4654	9923	10090	72123	66780	22938	15587	29414	24773
MEAN	957	282	353	150	354	325	2404	2154	765	503	949	826
MAX	1480	842	1020	400	2200	507	8820	5820	1410	1040	1250	1230
MIN	362	101	122	74	110	155	173	1070	378	354	437	346
CAL YR 1982	TOTAL	249727	MEAN	684	MAX	3770	MIN	101				
WTR YR 1983	TOTAL	305312	MEAN	836	MAX	8820	MIN	74				

## DELAWARE RIVER BASIN

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1968 to current year.  
 CHEMICAL DATA: 1958-59 (d), 1970 (b), 1971-74 (d), 1975 (c).  
 MINOR ELEMENTS DATA: 1971-74 (a).  
 ORGANIC DATA: OC--1974 (a), 1975 (c).  
 NUTRIENT DATA: 1971-74 (d), 1975 (c).  
 BIOLOGICAL DATA:  
 Bacteria--1971, 1973 (c); 1974 (d); 1975 (c).

## PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-77).

INSTRUMENTATION.--Temperature recorder since October 1967.

REMARKS.--Water temperature is affected by release of water from upstream reservoir. No record Dec. 14 to Jan. 27 and Mar. 8 to Apr. 19, due to instrument malfunction.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-77, 1979-83), 30.5°C July 22, 23, 1972, June 16, 1981; minimum (water years 1968, 1978-83), freezing point on many days during winter periods.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 23.5°C June 13; minimum, freezing point on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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



01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

## DELAWARE RIVER BASIN

01427207 DELAWARE RIVER AT LORDVILLE, NY

LOCATION.--Lat 41°52'05", long 75°12'50", Delaware County, Hydrologic Unit 02040101, at Lordville-Equinunk Interstate Bridge at Lordville, 50 ft downstream from Humphries Brook, and 6.5 mi southeast of Hancock.

DRAINAGE AREA.--1,590 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to August 1971, June 1973 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

INSTRUMENTATION.--Temperature recorder since October 1967.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-70, 73, 1975-83) 30.5°C June 16, 1976, July 10, 1981; minimum (water years 1968-71, 74, 77, 78, 80-83), freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.0°C June 15, July 3-4; minimum, freezing point on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

## DELAWARE RIVER BASIN

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01427207 DELAWARE RIVER AT LORDVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.5	.0	.5	3.5	1.5	2.5	7.5	4.0	5.5	9.0	8.0	8.5
2	.5	.0	.0	5.5	3.5	4.0	6.5	5.0	6.0	9.5	8.0	9.0
3	1.0	.0	.5	6.0	4.0	5.0	6.5	5.0	5.0	9.5	9.0	9.5
4	1.5	.5	1.0	5.0	4.0	4.5	6.0	5.0	5.5	9.5	8.5	9.0
5	.5	.0	.0	6.0	4.5	5.0	7.5	6.0	6.5	9.0	7.5	8.0
6	.0	.0	.0	5.5	4.5	4.5	6.5	5.5	6.0	10.5	7.5	9.0
7	.0	.0	.0	5.0	4.5	5.0	7.0	6.5	6.5	12.0	9.0	10.5
8	.0	.0	.0	5.0	4.0	4.0	7.5	7.0	7.5	11.5	9.5	10.5
9	.0	.0	.0	4.0	3.5	4.0	9.5	7.0	8.0	9.5	9.0	9.0
10	.0	.0	.0	4.5	4.0	4.5	9.5	7.0	8.0	8.5	7.5	8.0
11	.0	.0	.0	4.0	3.5	3.5	7.0	6.5	6.5	8.5	6.5	7.5
12	.0	.0	.0	3.5	2.5	3.0	6.5	6.5	6.5	10.0	8.0	9.0
13	.0	.0	.0	4.5	1.5	3.0	9.0	5.5	7.0	13.0	8.5	11.0
14	.0	.0	.0	5.0	3.0	4.0	9.0	7.5	8.5	15.5	11.5	13.5
15	.0	.0	.0	5.0	4.5	5.0	8.5	7.5	8.0	15.0	13.0	14.0
16	.0	.0	.0	6.5	4.0	5.0	7.5	4.5	6.0	13.0	10.5	12.0
17	.0	.0	.0	6.0	4.5	5.0	6.5	4.0	5.0	12.0	9.0	10.5
18	.5	.0	.0	5.5	4.5	4.5	6.5	5.5	5.5	13.5	10.0	11.5
19	.5	.0	.5	7.5	5.5	6.5	5.0	2.5	4.0	13.0	11.5	12.0
20	1.0	.0	.5	7.5	6.0	7.0	3.0	2.5	2.5	13.5	11.5	12.0
21	2.0	.0	1.0	6.0	5.0	5.0	5.0	3.0	4.0	14.0	13.0	13.5
22	3.0	1.0	2.0	5.0	3.5	4.5	7.5	4.0	5.5	14.5	13.5	14.0
23	3.0	2.0	2.5	3.5	1.5	2.0	8.0	5.0	6.5	16.5	14.0	15.5
24	2.5	1.5	2.0	2.5	.5	1.5	8.0	6.0	6.5	16.5	15.0	15.5
25	3.0	2.0	2.5	3.0	1.0	2.0	5.5	4.5	4.5	16.5	13.0	15.0
26	2.0	.0	1.0	4.0	1.0	2.5	7.0	4.5	5.5	16.5	15.5	15.5
27	2.0	.0	.5	3.5	2.0	2.5	7.0	5.5	6.0	15.5	13.5	14.5
28	2.0	.5	1.5	3.5	2.0	2.5	8.5	6.5	7.5	15.5	12.5	14.0
29	---	---	---	5.0	3.5	4.0	8.5	7.0	8.0	15.0	12.5	13.5
30	---	---	---	4.5	2.0	3.5	9.5	8.0	8.5	15.0	12.5	13.5
31	---	---	---	5.5	3.0	4.5	---	---	---	15.0	13.5	14.0
MONTH	3.0	.0	.5	7.5	.5	4.0	9.5	2.5	6.0	16.5	6.5	11.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.0	13.0	13.5	20.5	19.0	19.5	21.0	17.5	19.5	18.5	15.0	16.5
2	15.5	12.5	14.0	22.5	18.5	20.5	20.0	17.5	19.0	18.0	16.0	17.0
3	16.5	14.0	15.0	25.0	21.5	23.0	19.5	17.5	18.5	17.0	14.5	16.0
4	16.5	15.0	15.5	25.0	23.0	24.0	18.5	15.5	17.5	16.5	15.0	15.5
5	17.0	14.5	15.5	24.5	22.0	23.0	15.5	14.0	14.5	17.0	15.0	16.0
6	18.0	16.0	17.0	22.0	19.5	20.5	16.0	14.5	15.0	20.5	17.0	18.5
7	18.0	16.0	17.5	21.5	17.5	19.5	16.5	14.5	15.5	20.5	19.0	19.5
8	18.0	16.0	17.0	22.5	19.0	20.5	19.5	16.5	18.0	20.0	16.5	18.5
9	18.0	15.0	16.5	22.5	20.5	21.0	20.5	18.0	19.0	19.5	17.5	18.5
10	19.0	15.0	17.0	21.5	18.5	20.0	18.5	15.5	17.0	19.0	16.5	17.5
11	21.0	18.0	19.5	21.0	18.5	20.0	16.5	13.5	15.0	19.0	17.5	18.5
12	22.0	19.0	20.5	22.5	19.5	21.0	13.5	13.5	13.5	18.5	16.0	17.5
13	23.5	20.5	22.0	24.0	21.5	22.5	18.5	13.5	15.5	16.0	14.5	15.0
14	23.5	21.5	22.5	24.5	21.0	22.5	21.0	17.0	19.0	14.5	12.0	13.5
15	25.0	22.0	23.5	24.0	20.5	22.5	21.5	18.5	20.0	14.5	12.0	13.5
16	24.0	22.5	23.0	19.5	18.0	18.5	21.5	18.5	20.0	14.0	12.5	13.0
17	22.5	20.5	21.5	22.5	18.0	20.0	20.5	15.5	17.0	14.0	12.5	13.0
18	22.5	21.0	21.5	24.0	21.5	22.5	17.0	16.0	16.5	15.0	14.0	14.5
19	22.0	20.5	21.5	22.5	20.0	21.5	19.0	16.0	17.5	16.5	14.5	15.5
20	21.0	19.5	20.0	23.5	21.0	22.0	18.5	16.0	17.0	20.0	16.5	18.0
21	20.5	18.5	19.5	23.5	21.0	22.0	18.0	15.5	16.5	19.0	16.0	17.5
22	23.0	18.5	20.5	22.0	20.0	21.0	16.0	14.5	15.0	16.0	14.5	15.0
23	24.0	20.5	22.0	21.0	18.0	19.5	17.0	15.0	16.0	14.5	13.5	14.0
24	24.0	21.0	22.5	18.5	16.0	17.0	16.0	14.5	15.5	14.0	12.0	13.0
25	23.0	20.5	21.5	22.5	17.5	19.5	15.5	14.5	15.0	14.0	12.0	13.0
26	21.0	18.5	19.5	22.0	19.5	21.0	15.5	14.5	15.0	15.5	12.0	13.5
27	22.0	18.5	20.5	24.0	19.5	21.5	17.0	15.5	16.0	15.5	12.5	14.0
28	21.5	17.0	19.5	24.0	21.5	22.5	18.5	16.5	17.5	17.0	14.5	15.5
29	20.0	16.5	18.0	23.5	18.0	22.0	19.0	18.0	18.5	15.5	13.5	14.5
30	21.5	18.0	19.5	17.5	15.5	16.5	21.0	17.5	19.0	14.5	13.5	14.0
31	---	---	---	17.5	14.5	15.5	18.5	15.5	16.5	---	---	---
MONTH	25.0	12.5	19.0	25.0	14.5	20.5	21.5	13.5	17.0	20.5	12.0	15.5

## DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, NY

LOCATION.--Lat 41°45'24", long 75°03'30", Wayne County, Pennsylvania, Hydrologic Unit 02040101, on right bank, 0.5 mi downstream from Callicoon Creek, 0.5 mi downstream from Interstate Bridge 7, and 0.8 mi southeast of Callicoon. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,820 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1975 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 750 ft, from topographic map (nearest 20 ft).

REMARKS.--Records good except those for winter periods, which are poor. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> 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 period of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,300 ft<sup>3</sup>/s Feb. 12, 1981, result of ice jam release, gage height, 13.19 ft; maximum gage height, 14.83 ft Jan. 9, 1979 (ice jam); minimum 335 ft<sup>3</sup>/s Sept. 13, 1977, gage height, 2.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40,600 ft<sup>3</sup>/s Apr. 16, gage height, 9.89 ft; minimum, 417 ft<sup>3</sup>/s Sept. 27, but may have been lower during period of ice effect; minimum gage height, 2.32 ft Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1470	1520	2010	2290	1300	1120	2030	12900	4400	1890	1010	1290
2	1670	1570	1600	1800	1300	1500	1860	14100	3940	1600	1240	1220
3	1640	1300	1300	1500	3500	1860	2250	13500	3380	1400	1290	1530
4	1410	1160	1200	1300	12400	1900	3150	12700	3770	1310	1220	1450
5	1470	1220	1100	1100	6000	2080	2800	11100	4150	1270	1400	1220
6	1430	1110	1050	1000	4500	2290	2460	9120	3700	1270	1630	1030
7	1330	1140	1000	920	3500	2880	2320	7680	4430	1120	1530	977
8	1390	1070	860	880	2700	3760	3290	6740	3830	1040	1220	837
9	1700	1040	720	840	2200	3930	4210	7230	3000	1010	1180	766
10	1650	1310	630	800	1800	3900	5210	6290	2650	944	1160	1060
11	1400	1380	580	1100	1500	4740	8040	5410	2250	912	1270	1060
12	1280	1390	560	1700	1400	4860	6140	4780	2010	881	1690	1060
13	1220	1590	540	1200	1300	4750	4940	4300	1850	881	1480	912
14	849	1970	530	1000	1200	3640	4020	3830	1820	851	977	1240
15	1290	1680	520	920	1200	3290	3890	3380	1630	897	897	1400
16	1720	1340	1100	860	1200	3010	29400	3940	1500	1630	881	1240
17	1590	1220	4300	820	1100	2760	18800	3600	1530	1330	1290	1450
18	1280	1200	2000	780	1100	2590	11500	3060	1530	897	1330	1270
19	1320	1260	1600	760	1100	3020	8080	2680	1430	944	1430	1180
20	1300	1340	1500	740	1100	4670	7360	2560	1400	780	1500	881
21	1100	1350	1350	740	1100	4860	7230	2530	1360	766	1330	1010
22	1240	1380	1250	720	1100	6430	7060	2440	1180	866	1450	1120
23	1520	1700	1150	720	1100	4990	7720	2800	1060	1060	1380	928
24	1490	1720	1050	2000	1100	3980	10700	3000	1010	1400	1480	1080
25	1250	1310	1150	4500	1100	3250	21900	2560	960	977	1450	1220
26	1290	1240	1400	2600	1100	2670	21000	2300	1010	1030	1480	851
27	1330	1120	4500	2000	1080	2340	18800	2710	960	794	1600	700
28	1360	1080	4000	1700	1160	2960	16200	2870	3030	713	1480	944
29	1340	1170	4100	1600	---	3300	14400	2840	5480	726	1200	1080
30	1490	1830	3000	1500	---	2600	13800	4010	2740	1200	1080	1220
31	1540	---	2400	1400	---	2230	---	4780	---	1450	1400	---
TOTAL	43359	40710	50050	41790	60240	102160	270560	171740	72990	33839	40955	33226
MEAN	1399	1357	1615	1348	2151	3295	9019	5540	2433	1092	1321	1108
MAX	1720	1970	4500	4500	12400	6430	29400	14100	5480	1890	1690	1530
MIN	849	1040	520	720	1080	1120	1860	2300	960	713	881	700
CAL YR 1982	TOTAL	797450	MEAN	2185	MAX	19600	MIN	520				
WTR YR 1983	TOTAL	961619	MEAN	2635	MAX	29400	MIN	520				



## DELAWARE RIVER BASIN

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01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1975 to current year.

INSTRUMENTATION.--Temperature recorder since June 1975.

REMARKS.--No record Jan. 20 to Feb. 28, Apr. 23 to May 24, due to instrument malfunctions.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1976-83), 29.5°C Aug. 7-9, 1980; minimum, freezing point on many days during winter periods.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C July 3; minimum, freezing point on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

## DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	FEBRUARY			MARCH			APRIL			MAY		
1				3.5	2.0	3.0	8.0	4.5	6.0	---	---	---
2				5.0	3.5	4.0	7.5	5.0	6.5	---	---	---
3				6.0	4.0	5.0	6.5	5.5	6.0	---	---	---
4				5.0	4.5	4.5	6.5	5.5	6.0	---	---	---
5				6.0	5.0	5.5	8.0	6.5	7.0	---	---	---
6				5.5	5.0	5.0	7.5	6.5	7.0	---	---	---
7				5.0	5.0	5.0	7.5	7.0	7.0	---	---	---
8				5.0	4.5	5.0	8.0	7.0	7.5	---	---	---
9				4.5	4.5	4.5	9.5	8.0	9.0	---	---	---
10				4.5	4.5	4.5	9.5	8.0	8.5	---	---	---
11				4.5	4.5	4.5	8.0	7.5	7.5	---	---	---
12				4.5	3.0	4.0	7.5	7.0	7.5	---	---	---
13				4.5	3.0	3.5	8.5	6.5	7.5	---	---	---
14				5.5	3.5	4.5	9.5	8.0	9.0	---	---	---
15				6.0	5.0	5.5	9.0	8.5	9.0	---	---	---
16				7.0	5.0	6.0	8.5	5.5	7.0	---	---	---
17				6.0	5.5	6.0	6.0	5.0	5.5	---	---	---
18				5.5	5.0	5.0	6.0	6.0	6.0	---	---	---
19				7.0	5.0	6.5	6.0	4.0	5.0	---	---	---
20				7.5	7.0	7.5	4.0	3.5	3.5	---	---	---
21				7.0	5.5	6.0	5.0	3.5	4.0	---	---	---
22				5.5	4.5	5.5	6.5	5.0	6.0	---	---	---
23				4.5	2.5	3.5	---	---	---	---	---	---
24				3.0	1.5	2.5	---	---	---	---	---	---
25				3.5	2.0	2.5	---	---	---	18.5	14.5	16.5
26				4.5	2.0	3.0	---	---	---	17.5	16.0	16.5
27				3.5	3.0	3.0	---	---	---	16.5	15.0	15.5
28				3.5	3.0	3.0	---	---	---	17.0	14.0	15.5
29				5.0	3.5	4.0	---	---	---	15.5	14.0	14.5
30				5.5	3.0	4.0	---	---	---	15.0	13.5	14.0
31				6.5	3.5	5.0	---	---	---	15.0	14.0	15.0
MONTH				7.5	1.5	4.5	9.5	3.5	6.5			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	14.5	13.5	14.0	21.0	20.0	20.5	22.5	20.0	21.5	20.5	18.0	19.5
2	16.0	13.5	15.0	25.0	20.0	22.0	24.5	21.0	23.0	21.5	17.5	19.5
3	18.0	14.5	16.0	27.5	22.0	24.5	24.5	20.5	23.0	21.0	18.5	20.0
4	17.5	16.0	16.5	26.5	24.0	26.0	23.0	21.5	22.5	20.0	18.0	18.5
5	17.5	16.0	16.5	26.0	24.0	24.5	21.5	20.0	20.5	20.5	18.0	19.0
6	19.5	16.5	18.0	24.0	22.0	23.0	20.5	18.5	19.5	22.5	19.0	20.5
7	19.5	17.5	18.5	24.0	20.0	22.0	21.0	18.5	20.0	22.5	20.5	21.5
8	19.5	17.5	18.5	24.5	20.0	22.5	23.5	19.0	21.0	22.0	19.5	21.0
9	19.5	16.0	18.0	24.0	21.5	23.0	24.0	21.0	22.5	22.0	19.0	20.5
10	21.0	16.5	18.5	23.5	20.0	22.0	23.5	20.0	22.0	23.0	19.5	21.5
11	22.5	17.5	20.0	23.5	19.5	22.0	21.0	18.5	19.5	23.0	20.5	22.0
12	24.0	19.0	21.5	25.5	21.0	23.5	18.5	16.0	17.0	22.5	20.5	21.0
13	25.0	20.5	23.0	25.5	23.0	24.5	18.5	15.0	17.0	20.0	17.5	18.5
14	26.5	21.5	24.0	26.0	22.0	24.5	21.5	16.0	19.0	17.5	15.5	17.0
15	27.0	23.0	25.0	26.0	23.0	25.0	23.5	19.0	21.5	16.5	13.5	15.0
16	27.0	23.0	25.5	26.5	24.0	25.0	24.0	20.5	22.5	16.0	14.0	14.5
17	26.5	23.0	25.0	24.5	21.5	23.0	24.0	21.0	22.5	15.0	14.5	15.0
18	24.5	22.5	23.5	26.0	22.0	24.0	22.5	20.0	21.0	17.0	14.5	15.5
19	24.5	22.0	23.5	26.0	24.0	25.0	22.5	20.0	21.0	19.0	15.5	17.5
20	23.5	22.0	22.5	25.0	23.5	24.5	23.0	20.0	21.5	20.0	17.5	19.0
21	22.5	20.0	21.5	26.0	23.0	25.0	21.5	19.0	20.5	20.0	18.5	19.0
22	25.0	20.0	22.5	25.0	21.5	23.5	20.0	18.5	19.0	18.5	16.5	17.0
23	25.5	20.5	23.5	25.0	21.0	23.5	21.0	18.0	19.5	16.0	14.5	15.0
24	26.0	22.5	24.5	24.5	21.5	22.5	21.0	17.5	19.5	15.0	13.0	14.0
25	25.0	22.0	23.5	23.5	20.0	22.0	19.5	17.0	18.5	15.0	12.5	14.0
26	23.5	20.0	21.5	25.0	21.0	23.0	20.5	17.5	19.0	14.5	13.0	14.0
27	24.5	20.5	23.0	25.5	21.5	24.0	21.0	18.5	20.0	16.5	13.5	15.0
28	24.0	19.0	21.0	26.0	22.5	24.5	22.0	19.5	20.5	17.0	15.0	16.0
29	20.0	17.5	19.0	26.0	24.5	25.0	22.0	20.0	21.5	17.0	14.5	16.0
30	22.5	18.5	20.5	25.0	22.5	24.5	22.5	20.0	21.5	16.0	14.0	14.5
31	---	---	---	22.0	20.5	21.5	22.0	20.0	21.0	---	---	---
MONTH	27.0	13.5	21.0	27.5	19.5	23.5	24.5	15.0	20.5	23.0	12.5	17.5

## DELAWARE RIVER BASIN

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01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY

LOCATION.--Lat 41°30'31", long 74°59'11", Sullivan County, Hydrologic Unit 02040101, on left bank 1.6 mi upstream from Lackawaxen River, and 4.6 mi northwest of Barryville. Water-quality sampling site at discharge station.

DRAINAGE AREA.--2,020 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent except those for winter periods, which are poor. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow of 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, 130,000 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 26.40 ft from floodmarks in gage house, from rating curve extended above 55,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 23.19 ft; minimum, 122 ft<sup>3</sup>/s Sept. 5, 1953, gage height, 1.11 ft; minimum daily, 126 ft<sup>3</sup>/s Sept. 4, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46,000 ft<sup>3</sup>/s Apr. 16, gage height, 14.10 ft; minimum, 390 ft<sup>3</sup>/s Sept. 27, 28, gage height, 1.94 ft; minimum daily, 561 ft<sup>3</sup>/s Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1470	1500	2080	2360	1500	1480	2580	14000	4700	2140	1210	1340
2	1600	1560	1740	1900	1400	1880	2350	14600	4220	1700	1040	1190
3	1640	1400	1550	1600	4000	2560	2680	14600	3660	1500	1260	1310
4	1500	1340	1400	1300	15900	2540	3780	13700	3930	1370	1250	1460
5	1450	1260	1300	1200	6000	2560	3490	12300	4500	1310	1270	1270
6	1500	1310	1210	1100	4500	2790	3040	10200	3890	1320	1500	1100
7	1370	1260	1150	1000	3500	3230	2770	8450	4750	1210	1460	891
8	1420	1180	1000	960	2800	4060	3250	7240	4330	1090	1290	943
9	1590	1140	880	900	2300	4360	4700	7720	3450	1010	1180	646
10	1650	1180	760	900	1900	4360	6050	6920	3040	970	1120	883
11	1480	1510	640	1100	1700	5410	10600	5790	2530	900	1260	1010
12	1390	1410	620	1800	1500	5350	7910	5010	2230	875	1420	1070
13	1320	1600	600	1400	1400	4630	5910	4430	2020	866	1780	970
14	1200	1830	600	1100	1300	4130	4680	3930	1890	834	1130	935
15	810	1840	600	1000	1300	3720	4040	3610	1780	834	891	1310
16	1660	1480	1500	940	1300	3450	29900	4200	1640	1310	891	1310
17	1680	1350	4650	900	1200	3160	25900	4040	1550	1510	928	1350
18	1400	1290	2300	860	1200	2990	14600	3470	1620	1030	1260	1340
19	1360	1340	1800	840	1200	3410	10100	3060	1520	979	1410	1180
20	1400	1390	1600	820	1200	4880	8620	2880	1590	842	1350	1060
21	1240	1400	1500	800	1200	5520	8380	2840	1460	794	1420	762
22	1220	1390	1400	800	1200	7950	8280	2730	1310	858	1350	1260
23	1520	1660	1300	800	1200	6200	8800	3020	1180	1030	1390	1030
24	1570	1730	1200	2000	1200	4730	11000	3290	1080	1300	1400	834
25	1400	1460	1300	5000	1200	3890	23900	2950	1020	1220	1430	1210
26	1350	1390	2430	3000	1200	3270	23800	2650	1030	952	1430	1110
27	1400	1250	5170	2300	1200	2880	21100	2820	988	988	1500	561
28	1410	1230	4110	2000	1300	3490	17800	3140	1840	747	1480	883
29	1420	1260	4180	1800	---	4130	15700	3080	6140	710	1270	961
30	1460	1550	3430	1600	---	3370	14800	3930	3390	970	1200	1130
31	1550	---	2790	1500	---	2840	---	5190	---	1310	1130	---
TOTAL	44430	42490	56790	45580	66800	119220	310510	185790	78278	34479	39900	32309
MEAN	1433	1416	1832	1470	2386	3846	10350	5993	2609	1112	1287	1077
MAX	1680	1840	5170	5000	15900	7950	29900	14600	6140	2140	1780	1460
MIN	810	1140	600	800	1200	1480	2350	2650	988	710	891	561

CAL YR 1982 TOTAL 885837 MEAN 2427 MAX 22400 MIN 600  
WTR YR 1983 TOTAL 1056576 MEAN 2895 MAX 29900 MIN 561

## DELAWARE RIVER BASIN

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

CHEMICAL DATA: 1971-73 (a).

NUTRIENT DATA: 1971 (a).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-76).

INSTRUMENTATION.--Temperature recorder since October 1967.

REMARKS.--No record Nov. 29-Dec. 7 due to clock stoppage and Mar. 1-Apr. 27 when recorder was out of operation.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-75, 1980-81, 83), 32.0°C Aug. 2, 3, 1975, July 10, 1981; minimum (water years 1968, 1977-83), freezing point on many days during winter periods, each year except water years 1980-82.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.5°C July 15; minimum, freezing point on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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



01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTÖBER 1982 TO SEPTEMBER 1983

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	15.5	15.5	15.5	22.5	21.5	22.0	26.5	24.0	25.5	23.5	21.0	22.0
2	16.5	15.5	16.0	25.0	21.5	23.5	26.0	23.5	24.5	22.5	20.0	21.5
3	17.0	16.5	17.0	28.0	24.0	26.0	26.5	23.0	25.0	23.5	20.5	22.0
4	18.5	17.0	17.5	28.0	26.0	27.0	26.0	24.0	25.0	22.0	21.0	21.5
5	18.5	18.0	18.5	27.0	25.5	26.0	25.0	24.0	24.5	22.5	20.5	21.5
6	20.0	18.5	19.0	26.0	24.0	25.0	24.5	22.5	23.5	24.0	21.0	22.5
7	20.0	20.0	20.0	25.5	21.5	23.5	25.0	22.0	23.5	24.0	22.0	23.0
8	20.0	19.5	20.0	25.5	21.5	24.0	25.5	22.0	24.0	24.0	20.5	22.0
9	20.0	19.0	19.5	26.0	23.0	24.0	26.0	23.0	24.5	24.0	20.5	22.0
10	20.5	18.5	19.5	25.0	21.5	23.5	25.0	21.5	23.5	24.5	21.0	23.0
11	22.5	20.0	21.0	25.0	21.0	23.0	24.0	22.0	22.5	25.5	22.0	24.0
12	24.0	21.0	22.5	26.0	22.0	24.5	22.0	19.5	20.5	24.0	22.5	23.0
13	25.5	22.5	24.0	27.0	24.0	25.5	19.0	18.0	18.5	22.0	20.0	21.0
14	26.5	23.5	25.0	28.0	23.0	25.5	21.5	17.0	19.0	21.0	18.5	19.5
15	28.0	25.0	26.5	28.5	24.5	26.0	23.5	19.0	21.0	19.5	16.5	18.0
16	28.0	25.5	26.5	28.0	25.5	26.5	24.5	20.5	22.5	17.5	15.5	16.0
17	27.5	25.0	26.5	27.5	25.0	26.5	25.0	22.0	23.5	17.5	16.0	16.5
18	27.0	25.5	26.0	28.0	24.5	26.0	25.5	24.5	25.0	18.0	16.0	17.0
19	26.0	24.5	25.0	26.0	25.0	25.5	25.5	23.5	24.5	20.0	16.5	18.0
20	25.0	24.0	24.0	26.5	24.0	25.0	26.0	23.0	24.0	21.5	18.5	20.0
21	24.0	22.5	23.5	27.5	24.0	25.5	24.0	21.5	23.0	20.5	19.5	20.0
22	26.5	22.0	24.5	26.0	23.0	24.5	22.5	20.5	21.5	19.5	17.5	18.5
23	27.0	23.0	25.0	25.5	22.0	24.0	23.5	20.5	22.0	17.0	15.5	16.0
24	28.0	24.0	26.0	25.5	23.5	24.5	23.0	20.0	21.5	17.0	14.5	15.5
25	26.5	23.5	25.0	25.5	22.5	24.0	22.0	20.0	21.0	16.0	14.0	15.0
26	25.5	22.0	24.0	26.0	22.5	24.5	23.0	20.0	21.5	16.0	14.0	15.0
27	27.0	22.5	25.0	27.0	22.5	25.0	23.5	21.0	22.5	17.0	14.5	16.0
28	25.5	22.5	24.0	27.5	24.0	25.5	23.0	21.5	22.5	18.5	15.5	16.5
29	22.0	20.0	20.5	26.5	25.5	26.0	23.5	22.0	23.0	18.0	14.0	16.0
30	22.0	20.5	21.0	27.0	25.0	26.0	24.0	22.0	23.0	15.5	14.5	15.0
31	---	---	---	26.5	25.0	26.0	23.0	22.0	22.5	---	---	---
MONTH	28.0	15.5	22.5	28.5	21.0	25.0	26.5	17.0	23.0	25.5	14.0	19.5

## DELAWARE RIVER BASIN

01432160 DELAWARE RIVER AT BARRYVILLE, NY

LOCATION.--Lat 41°28'31", long 74°54'46", Pike County, Pa. Hydrologic Unit 02040104, at Shohola-Barryville Bridge at Barryville, just upstream from Halfway Brook, and 1,000 ft upstream from Shohola Brook.

DRAINAGE AREA.--2,659 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1958, 1968 to current year.

CHEMICAL DATA: 1958 (d), 1969 (a), 1973 (b), 1974 (d), 1975 (b).

NUTRIENT DATA: 1973 (b), 1974 (d), 1975 (b).

BIOLOGICAL DATA:

Bacteria.--1973 (b), 1974 (d), 1975 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to September 1973, March 1975 to current year.

INSTRUMENTATION.--Temperature recorder since October 1967.

REMARKS.--Unpublished records of daily temperatures for May to September 1964-66 are available in files of the Geological Survey. Temperature probe may be influenced by solar radiation during periods of low flow.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-73, 1976-78, 1980-82), 32.0°C July 20, 21, 1980; minimum, freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Minimum, freezing point on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

01432160 DELAWARE RIVER AT BARRYVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.5	13.5	14.0	21.0	19.0	20.0	29.0	26.0	27.5	---	---	---
2	16.0	13.5	14.5	23.5	18.5	21.0	29.5	23.5	26.0	---	---	---
3	16.5	14.5	15.5	25.0	20.0	22.5	29.0	24.0	26.5	---	---	---
4	18.0	15.5	16.5	27.0	21.5	24.0	28.5	26.0	27.0	---	---	---
5	18.5	16.0	17.0	24.5	22.0	23.5	27.0	25.5	26.0	---	---	---
6	19.5	17.0	18.0	24.0	21.0	22.5	27.5	24.5	26.0	---	---	---
7	19.0	17.5	18.0	24.5	19.5	21.5	27.5	24.5	26.0	---	---	---
8	18.5	16.5	17.5	25.5	19.5	22.0	29.0	24.5	26.5	---	---	---
9	18.0	15.0	16.5	25.0	20.5	22.5	29.0	25.0	26.5	---	---	---
10	19.0	15.0	17.0	25.5	19.0	22.0	29.5	23.0	26.0	---	---	---
11	20.0	16.0	18.0	27.0	18.0	22.0	25.0	22.5	24.5	---	---	---
12	21.0	17.0	19.0	28.0	19.0	23.0	23.0	21.5	22.5	---	---	---
13	22.0	18.5	20.0	27.5	20.0	23.5	22.5	20.5	21.5	---	---	---
14	24.5	20.5	22.5	28.5	19.0	23.5	25.0	19.5	21.5	---	---	---
15	27.0	23.0	24.5	29.5	20.0	24.0	28.0	19.5	23.0	---	---	---
16	26.0	21.5	24.0	28.0	21.5	25.5	29.0	20.5	24.0	---	---	---
17	25.5	21.5	24.0	28.0	25.0	26.5	25.5	21.5	23.0	---	---	---
18	25.5	22.5	24.0	29.5	24.0	26.0	25.0	21.5	23.0	---	---	---
19	24.5	23.5	24.0	27.0	22.0	24.0	24.5	21.5	23.0	---	---	---
20	23.5	20.0	22.5	26.5	21.5	23.5	---	---	---	---	---	---
21	23.0	19.5	21.0	29.5	21.0	24.5	---	---	---	---	---	---
22	24.0	19.5	21.5	26.0	20.0	23.0	---	---	---	---	---	---
23	24.5	20.0	22.0	26.5	19.0	23.5	---	---	---	---	---	---
24	26.5	20.5	23.0	26.5	23.0	24.5	---	---	---	---	---	---
25	25.0	20.0	22.5	26.5	23.0	24.5	---	---	---	---	---	---
26	25.5	20.0	22.5	28.0	21.5	24.5	---	---	---	---	---	---
27	28.0	21.0	23.5	29.5	22.0	25.5	---	---	---	---	---	---
28	22.0	21.0	21.5	31.5	22.0	26.0	---	---	---	14.0	6.5	9.5
29	21.0	19.0	20.0	29.0	23.0	25.5	---	---	---	14.0	7.0	10.0
30	21.5	19.0	20.0	30.0	23.0	26.0	---	---	---	11.0	9.5	10.0
31	---	---	---	29.0	25.5	27.0	---	---	---	---	---	---
MONTH	28.0	13.5	20.0	31.5	18.0	24.0						

## DELAWARE RIVER BASIN

01432805 DELAWARE RIVER AT POND EDDY, NY

LOCATION.--Lat 41°26'20", long 74°49'11", Pike County, Pa. Hydrologic Unit 02040104, at interstate bridge, at Pond Eddy, 450 ft downstream from Mill Brook and 4.5 mi upstream from Mongaup River.

DRAINAGE AREA.--2,820 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Temperature recorder since October 1973.

REMARKS.--Temperature probe may be influenced by solar radiation during periods of low flow. No record Apr. 27 to May 24, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1976, 1978, 1980-81, 1983) 31.0°C July 21, 1980; minimum (water years 1974, 1977-78, 1980, 1983), freezing point on many days during winter periods, except 1978 and 1980.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.5°C July 18; minimum, freezing point on many days during January and February.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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



01432805 DELAWARE RIVER AT POND EDDY, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.5	.0	.5	2.5	2.0	2.5	6.5	5.0	5.5	---	---	---
2	.5	.5	.5	4.0	2.5	3.5	6.5	5.5	6.0	---	---	---
3	1.0	.5	1.0	4.5	4.0	4.5	6.5	6.0	6.5	---	---	---
4	1.0	.5	.5	4.5	4.0	4.5	6.5	6.0	6.5	---	---	---
5	.5	.5	.5	5.0	4.0	4.5	8.0	6.5	7.0	---	---	---
6	.5	.5	.5	5.0	5.0	5.0	8.0	7.0	7.5	---	---	---
7	.5	.5	.5	5.0	5.0	5.0	8.0	8.0	8.0	---	---	---
8	.5	.5	.5	5.0	5.0	5.0	8.5	8.0	8.5	---	---	---
9	.5	.5	.5	5.0	4.5	4.5	10.0	8.5	9.0	---	---	---
10	.5	.5	.5	4.5	4.5	4.5	10.0	8.5	9.5	---	---	---
11	.5	.5	.5	4.5	4.5	4.5	8.5	8.5	8.5	---	---	---
12	.5	.5	.5	4.5	4.0	4.0	8.5	8.0	8.0	---	---	---
13	.5	.5	.5	4.0	3.5	4.0	9.0	7.5	8.0	---	---	---
14	.5	.5	.5	4.5	4.0	4.5	9.5	8.5	9.0	---	---	---
15	.5	.5	.5	6.0	4.5	5.5	9.5	9.0	9.0	---	---	---
16	.5	.5	.5	6.5	5.5	6.0	9.0	6.5	8.0	---	---	---
17	.5	.5	.5	6.5	6.0	6.0	6.5	6.0	6.0	---	---	---
18	.5	.5	.5	6.0	5.5	5.5	7.0	6.5	7.0	---	---	---
19	1.0	.5	.5	7.0	5.5	6.0	7.0	5.0	6.0	---	---	---
20	1.0	1.0	1.0	8.0	7.0	7.5	5.0	4.5	4.5	---	---	---
21	1.5	1.0	1.5	8.0	6.5	7.5	5.5	4.5	5.0	---	---	---
22	2.5	1.5	2.0	6.5	5.5	6.0	7.5	5.5	6.5	---	---	---
23	2.5	2.5	2.5	5.5	4.5	4.5	8.5	7.0	8.0	---	---	---
24	2.5	2.0	2.0	4.5	3.5	3.5	8.5	8.5	8.5	---	---	---
25	2.0	2.0	2.0	3.5	3.0	3.5	8.5	6.0	7.5	18.0	15.5	17.0
26	2.0	1.0	1.5	4.0	3.0	3.5	7.5	6.0	6.5	18.0	16.5	17.0
27	1.0	1.0	1.0	4.0	3.5	4.0	---	---	---	16.5	15.0	16.0
28	2.0	1.0	1.5	4.0	3.5	3.5	---	---	---	16.5	13.5	15.0
29	---	---	---	5.0	4.0	4.5	---	---	---	16.5	14.5	15.0
30	---	---	---	5.0	4.0	4.5	---	---	---	15.5	14.0	14.5
31	---	---	---	5.5	4.5	5.0	---	---	---	15.0	14.0	14.5
MONTH	2.5	.0	1.0	8.0	2.0	4.5	10.0	4.5	7.5			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.5	14.0	14.5	21.5	19.5	20.5	27.5	25.5	26.5	24.0	21.0	22.5
2	16.0	13.5	15.0	23.5	20.0	21.5	28.0	25.0	26.0	24.5	21.0	22.5
3	17.0	14.5	16.0	25.5	21.5	23.5	27.5	24.0	25.5	25.0	21.5	23.0
4	18.0	16.0	16.5	26.0	22.5	24.0	27.0	25.0	26.0	23.5	22.0	22.5
5	18.5	16.5	17.5	26.0	23.0	24.0	26.5	25.0	25.5	24.5	22.0	23.0
6	19.5	17.0	18.5	24.0	21.5	23.0	27.0	24.0	25.5	25.5	22.0	23.5
7	19.5	18.0	19.0	24.0	20.0	22.5	27.0	24.5	25.5	24.5	22.5	23.5
8	19.0	17.5	18.0	24.5	20.5	22.5	27.5	24.5	25.5	24.0	20.5	22.0
9	18.5	16.0	17.5	24.0	22.0	23.0	28.0	24.5	26.0	24.5	20.5	22.0
10	19.0	16.0	17.5	25.0	21.0	22.5	27.5	23.5	25.0	24.5	21.0	22.5
11	20.0	17.0	18.5	25.5	21.0	23.0	25.0	23.0	24.0	25.5	22.0	23.5
12	21.0	18.0	19.5	25.0	21.0	23.0	23.0	20.5	21.0	24.5	23.0	23.5
13	21.5	19.0	20.5	25.0	22.0	24.0	21.0	19.5	20.0	23.0	20.0	21.0
14	24.0	20.5	22.0	26.0	22.0	24.0	22.5	19.0	20.5	21.0	18.5	19.5
15	25.5	22.5	24.0	25.5	22.5	24.0	25.0	19.5	21.5	20.5	18.0	19.0
16	26.0	24.0	25.0	26.5	23.5	25.0	25.5	21.0	22.5	18.5	17.0	17.5
17	25.0	21.5	23.5	28.0	25.0	26.0	26.0	22.0	23.5	18.5	16.0	17.0
18	25.0	22.5	24.0	28.5	25.5	26.5	27.0	23.5	25.0	19.0	16.5	17.5
19	24.5	24.0	24.0	26.5	23.5	24.5	28.0	24.5	25.5	20.5	17.0	18.5
20	23.5	23.0	23.0	24.5	22.0	23.5	26.0	23.5	25.0	22.5	19.0	20.5
21	23.0	20.0	22.0	25.0	22.0	23.5	25.5	23.0	24.0	21.0	20.0	20.5
22	24.0	20.0	22.0	24.5	21.0	23.0	24.5	22.0	23.0	20.0	18.5	19.0
23	24.5	21.0	23.0	24.0	20.5	22.5	25.0	22.0	23.5	18.0	16.0	17.0
24	25.0	21.5	23.5	25.0	23.0	23.5	24.5	21.5	23.0	17.5	14.0	15.5
25	24.5	21.5	23.0	25.5	23.0	24.0	24.0	21.0	22.5	17.5	14.0	15.0
26	24.5	21.0	22.5	25.0	22.0	23.5	24.5	21.5	22.5	16.5	14.0	15.0
27	26.5	22.0	24.0	27.5	22.5	24.5	25.5	22.5	23.5	15.0	14.0	14.5
28	25.0	21.0	22.5	28.0	23.5	25.5	25.0	23.5	24.0	18.5	14.0	16.0
29	21.5	20.0	21.0	26.0	24.5	25.0	25.0	23.0	24.0	18.0	14.5	16.0
30	22.5	19.5	21.0	26.5	24.0	25.0	24.5	22.0	23.5	16.0	15.0	15.5
31	---	---	---	28.0	25.0	26.5	24.0	22.0	23.0	---	---	---
MONTH	26.5	13.5	20.5	28.5	19.5	24.0	28.0	19.0	24.0	25.5	14.0	19.5

## DELAWARE RIVER BASIN

01433500 MONGAUP RIVER NEAR MONGAUP, NY

LOCATION.--Lat 41°27'41", long 74°45'33", Sullivan County, Hydrologic Unit 02040104, on right bank 300 ft downstream from Rio hydroelectric plant of Orange and Rockland Utilities, Inc., 0.5 mi downstream from Bush Kill, and 2.8 mi upstream from mouth and Mongaup.

DRAINAGE AREA.--200 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1939 to current year.

REVISED RECORDS.--WDR NY-71-1: 1970. WDR NY-81-1: 1980. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 625.05 ft Orange and Rockland Utilities, Inc. datum. Prior to July 6, 1956, water-stage recorders at sites 25 ft upstream on Rio Tailrace and 200 ft upstream on natural channel, at datum 4.0 ft higher.

REMARKS.--Records fair. Flow regulated by storage in Cliff Lake, Swinging Bridge, and Toronto Reservoirs (see Reservoirs in Delaware River Basin) and small reservoirs above station.

AVERAGE DISCHARGE.--44 years, 341 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,900 ft<sup>3</sup>/s Aug. 19, 1955; maximum daily, 12,300 ft<sup>3</sup>/s Aug. 19, 1955; minimum daily, 6 ft<sup>3</sup>/s Oct. 1, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,710 ft<sup>3</sup>/s Apr. 16, gage height, 9.47 ft; minimum daily, 24 ft<sup>3</sup>/s Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	26	57	67	265	281	738	763	385	265	170	53
2	120	24	61	56	307	342	718	758	412	313	164	43
3	57	25	57	153	849	392	849	763	366	213	182	40
4	69	34	55	218	849	422	923	774	446	185	230	45
5	153	85	51	255	698	238	894	728	461	278	313	43
6	99	52	49	218	632	151	768	518	464	382	273	415
7	96	44	47	173	623	345	733	180	738	382	141	575
8	135	40	42	90	606	665	743	135	708	369	324	575
9	89	62	49	51	579	698	768	351	674	345	408	579
10	49	51	36	129	563	688	918	483	646	196	408	579
11	40	40	38	278	558	698	1070	468	628	62	425	567
12	35	37	37	283	575	698	965	457	632	203	476	567
13	35	56	36	263	554	275	883	461	679	372	376	382
14	35	45	34	263	542	342	827	450	628	405	88	76
15	33	45	35	138	542	436	789	418	606	382	81	45
16	32	39	64	73	526	405	4170	472	571	211	151	372
17	33	37	255	173	538	402	5080	684	588	66	151	192
18	28	37	146	268	522	392	2230	660	597	191	94	57
19	28	36	70	253	530	641	2200	646	592	550	124	191
20	27	37	218	286	526	816	1980	646	402	321	101	534
21	29	37	351	286	522	871	1860	637	291	327	53	546
22	28	37	319	124	382	1020	1580	632	439	299	165	597
23	26	37	327	86	369	929	1190	669	405	142	542	579
24	25	45	146	222	530	877	1930	655	366	73	251	194
25	27	37	70	226	534	816	2180	632	366	164	232	56
26	30	35	69	294	201	784	2060	646	182	263	222	164
27	29	39	224	238	73	795	1590	688	230	268	160	360
28	28	34	336	249	191	990	953	418	198	268	71	388
29	28	45	351	141	---	866	843	405	189	268	61	408
30	28	49	330	80	---	795	748	422	228	159	100	415
31	27	---	143	192	---	768	---	432	---	61	93	---
TOTAL	1686	1247	4103	5826	14186	18838	43180	17051	14117	7983	6630	9637
MEAN	54.4	41.6	132	188	507	608	1439	550	471	258	214	321
MAX	188	85	351	294	849	1020	5080	774	738	550	542	597
MIN	25	24	34	51	73	151	718	135	182	61	53	40
CAL YR 1982	TOTAL	110878	MEAN	304	MAX	1950	MIN	24				
WTR YR 1983	TOTAL	144484	MEAN	396	MAX	5080	MIN	24				

## DELAWARE RIVER BASIN

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## 01434000 DELAWARE RIVER AT PORT JERVIS, NY

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

DRAINAGE AREA.--3,070 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft 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<sup>2</sup> of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> 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<sup>3</sup>/s Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft<sup>3</sup>/s Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft<sup>3</sup>/s Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft<sup>3</sup>/s by velocity-area studies; stage on Mar. 8, 1904, was 25.5 ft, ice jam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72,700 ft<sup>3</sup>/s Apr. 16, gage height, 13.05 ft; minimum, 697 ft<sup>3</sup>/s Oct. 15, gage height, 1.65 ft; minimum daily, 870 ft<sup>3</sup>/s Dec. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	1580	2470	2990	3080	3250	5770	18600	6570	4380	1640	1870
2	1850	1580	2290	2600	2850	4020	5330	18400	6060	3650	1570	1340
3	1740	1540	1980	2580	8980	5670	5770	19000	5310	3300	1460	1290
4	1690	1420	1740	2490	22000	5730	7530	18000	5410	3030	1580	1600
5	1680	1690	1610	2410	12600	4910	7330	16700	6590	2520	1580	1490
6	1740	1730	1500	2210	8150	4600	6370	14200	5670	2600	1860	1540
7	1640	1460	1580	2170	6820	5400	6050	10800	7810	2440	1750	2470
8	1680	1400	1400	1780	6340	7250	6160	8760	8210	2330	1810	2140
9	1730	1360	1300	1500	5600	7730	8360	9890	6920	2080	1670	1690
10	1780	1260	1310	1530	5070	7730	9900	9970	6220	1440	1620	1610
11	1630	1530	1500	2270	4630	9110	17700	8610	5500	1240	1770	1600
12	1580	1540	870	3430	3850	8840	14600	7470	5100	1780	2550	1660
13	1480	1730	1160	3300	3250	7170	11800	6560	4830	1980	2530	2020
14	1450	1940	1070	2540	3580	6750	9830	5570	3880	1990	1720	1020
15	1080	2210	1260	1990	4040	6780	8610	4850	3200	1910	1240	1290
16	1560	1880	1920	1590	3880	6340	44000	6380	3210	1900	1150	1660
17	1810	1580	4630	1870	3820	5870	47900	6330	3080	1850	1150	1560
18	1580	1450	4420	2310	3690	5560	25500	5420	3090	1570	1500	1530
19	1660	1420	3130	2270	3530	6520	19200	4800	2770	2310	1570	1330
20	1710	1540	2760	1960	3010	8070	16500	4540	2860	2120	2180	2500
21	1630	1590	2690	2290	2870	9570	15400	4890	2910	2030	1630	2110
22	1460	1560	2450	2250	3130	14500	15200	4190	2960	2250	1490	2730
23	1680	1730	2210	1810	3910	12400	15300	4790	2650	1910	2070	2290
24	1640	2090	1980	4630	4510	9990	17400	4990	2430	1440	1910	1320
25	1580	1980	1960	7490	4360	8540	34800	4540	2170	1870	2210	1160
26	1660	1660	2230	5630	3450	6750	38000	4180	1500	1950	1690	1340
27	1640	1540	5910	4420	2490	5840	32000	4670	1550	1430	1740	1260
28	1690	1420	5170	3910	2690	7730	24500	4930	2210	1220	1690	1070
29	1690	1510	5100	3130	---	8540	21200	4270	7410	1710	1630	1330
30	1690	1740	4510	2730	---	7290	19400	4920	5960	1610	1860	1540
31	1590	---	3640	2940	---	6340	---	6890	---	1340	1770	---
TOTAL	50850	48660	77750	87020	146180	224790	517410	258110	134040	65180	53590	49360
MEAN	1640	1622	2508	2807	5221	7251	17250	8326	4468	2103	1729	1645
MAX	1850	2210	5910	7490	22000	14500	47900	19000	8210	4380	2550	2730
MIN	1080	1260	870	1500	2490	3250	5330	4180	1500	1220	1150	1020
CAL YR 1982	TOTAL	1356380	MEAN	3716	MAX	28300	MIN	870				
WTR YR 1983	TOTAL	1712940	MEAN	4693	MAX	47900	MIN	870				

## DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.

CHEMICAL DATA: 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d).

MINOR ELEMENTS DATA: 1970 (a), 1972-73 (a), 1974-76 (c).

PESTICIDE DATA: 1974 (a).

ORGANIC DATA: OC--1974 (b), 1975 (d).

NUTRIENT DATA: 1968 (a), 1969-76 (d).

BIOLOGICAL DATA:

Bacteria--1973-76 (d).

Phytoplankton--1974 (b), 1975-76 (c).

Periphyton--1976 (a).

SEDIMENT DATA: 1959 (c), 1976 (c).

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 Dec. 16 to Jan. 19, Mar. 4 to Apr. 18, and Apr. 24 to June 10, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1957-59, 1973-81, 1983), 30.0°C July 13, 1981; minimum (water years 1958-60, 1973, 1975-83), freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C July 17, 18, 31, Aug. 1; minimum, freezing point on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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



## DELAWARE RIVER BASIN

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01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.0	.5	1.0	2.5	2.0	2.0	---	---	---	---	---	---
2	1.0	1.0	1.0	4.0	2.5	3.0	---	---	---	---	---	---
3	2.0	1.0	1.5	4.5	3.5	4.0	---	---	---	---	---	---
4	1.5	.0	.0	4.5	3.5	4.0	---	---	---	---	---	---
5	.0	.0	.0	---	---	---	---	---	---	---	---	---
6	.0	.0	.0	---	---	---	---	---	---	---	---	---
7	.0	.0	.0	---	---	---	---	---	---	---	---	---
8	.0	.0	.0	---	---	---	---	---	---	---	---	---
9	.0	.0	.0	---	---	---	---	---	---	---	---	---
10	.0	.0	.0	---	---	---	---	---	---	---	---	---
11	.0	.0	.0	---	---	---	---	---	---	---	---	---
12	.0	.0	.0	---	---	---	---	---	---	---	---	---
13	.0	.0	.0	---	---	---	---	---	---	---	---	---
14	.0	.0	.0	---	---	---	---	---	---	---	---	---
15	.0	.0	.0	---	---	---	---	---	---	---	---	---
16	.5	.0	.5	---	---	---	---	---	---	---	---	---
17	.5	.5	.5	---	---	---	---	---	---	---	---	---
18	1.5	.5	1.0	---	---	---	---	---	---	---	---	---
19	1.5	1.0	1.5	---	---	---	7.5	5.5	6.5	---	---	---
20	1.5	.5	1.0	---	---	---	5.0	5.0	5.0	---	---	---
21	2.0	1.0	1.5	---	---	---	6.0	5.0	5.5	---	---	---
22	3.0	1.5	2.0	---	---	---	7.5	6.0	7.0	---	---	---
23	2.5	2.0	2.0	---	---	---	9.0	7.5	8.0	---	---	---
24	2.0	1.5	2.0	---	---	---	---	---	---	---	---	---
25	2.0	1.5	2.0	---	---	---	---	---	---	---	---	---
26	1.5	.5	1.0	---	---	---	---	---	---	---	---	---
27	1.0	.5	.5	---	---	---	---	---	---	---	---	---
28	2.0	.5	1.5	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	3.0	.0	.5									
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	22.0	20.5	21.0	27.5	26.0	27.0	24.0	21.5	23.0
2	---	---	---	24.5	21.0	22.0	26.5	25.0	26.0	24.0	21.5	23.0
3	---	---	---	26.0	23.0	24.0	27.0	24.5	26.0	24.0	22.0	23.5
4	---	---	---	26.0	24.0	25.0	26.5	25.5	26.0	23.5	22.5	23.0
5	---	---	---	25.5	24.0	25.0	26.5	25.0	26.0	24.5	22.5	23.5
6	---	---	---	24.5	23.0	23.5	27.0	24.0	25.5	25.0	23.5	24.0
7	---	---	---	24.0	22.0	23.0	27.0	25.0	26.0	25.0	23.5	24.0
8	---	---	---	24.5	21.5	23.0	27.0	25.0	26.0	23.5	21.5	23.0
9	---	---	---	24.0	22.5	23.0	26.5	24.5	26.0	23.5	21.0	22.5
10	---	---	---	23.5	21.0	22.5	26.0	24.0	25.0	24.0	21.5	23.0
11	20.0	18.0	19.0	24.0	21.5	23.0	25.0	23.0	24.0	24.5	22.5	24.0
12	20.5	19.5	20.0	25.0	22.5	24.0	23.0	20.0	21.5	24.5	22.5	23.5
13	21.5	20.0	21.0	25.5	23.5	24.5	21.5	20.0	20.5	22.5	20.5	21.5
14	23.5	21.0	22.0	25.5	22.5	24.5	22.0	19.0	20.5	21.0	19.5	20.0
15	25.5	22.5	23.5	26.0	23.5	25.0	22.5	20.0	21.5	19.5	18.0	19.0
16	26.0	24.0	25.0	26.5	24.0	25.5	24.0	21.5	23.0	19.0	17.5	18.0
17	24.5	23.0	23.5	27.5	24.5	26.0	24.5	22.0	23.5	19.0	18.0	18.5
18	24.5	23.0	24.0	27.5	25.5	27.0	26.0	23.5	24.5	19.5	17.0	18.5
19	24.5	23.0	23.5	27.0	24.5	25.5	27.0	25.0	26.0	20.5	18.0	19.5
20	23.0	22.5	23.0	24.5	23.5	24.0	27.0	25.0	26.0	22.0	19.5	21.0
21	23.0	22.0	22.5	25.5	23.0	24.0	25.0	23.0	24.5	21.5	20.0	20.5
22	23.5	21.0	22.5	24.0	22.5	23.5	24.0	22.5	23.5	20.0	19.0	19.5
23	24.5	22.0	23.0	24.5	21.5	23.5	25.0	22.5	24.0	18.5	17.0	18.0
24	24.5	22.5	23.5	24.0	22.5	23.5	24.5	22.0	23.5	17.5	16.0	16.5
25	24.0	23.0	23.5	25.0	23.5	24.0	24.0	21.5	23.0	16.5	15.0	16.0
26	23.0	20.5	22.0	25.5	23.5	24.5	24.5	22.0	23.0	16.0	15.0	15.5
27	26.5	22.0	23.5	25.5	22.5	24.0	25.5	23.0	24.5	17.0	15.0	16.5
28	25.0	21.0	23.5	26.0	23.5	25.0	25.5	24.0	25.0	18.5	16.5	17.5
29	22.0	20.5	21.0	26.0	25.0	25.5	25.0	23.5	24.5	17.5	16.0	16.5
30	22.5	20.0	21.0	26.0	24.0	25.0	25.5	23.5	24.5	16.5	16.0	16.0
31	---	---	---	27.5	24.5	26.0	24.0	23.0	23.5	---	---	---
MONTH	26.5	18.0	22.5	27.5	20.5	24.0	27.5	19.0	24.5	25.0	15.0	20.5

## DELAWARE RIVER BASIN

01434010 EAST BRANCH NEVERSINK RIVER AT DENNING, NY

LOCATION.--Lat 41°57'30", long 74°46'18", Ulster County, Hydrologic Unit 02040104, on downstream side of bridge on private road at Strauss Estate, 0.9 mi upstream from Erts Brook, 0.4 mi downstream from Riley Brook and 1.0 mi northeast of Denning.

DRAINAGE AREA.--13.3 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1983.

CHEMICAL DATA: 1983 (a).

MINOR ELEMENT DATA: 1983 (a).

ORGANIC DATA: OC--1983 (a)

REMARKS.--All cation analysis were performed on water samples which passed through a 0.1-micrometer membrane filter; while anion analysis were performed on water samples which passed through the standard 0.45-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 15...	1715	8.4	22	5.0	16.0	7	<.1	1.6	.7

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)
AUG 15...	.5	.2	1.0	--	7.3	.7	<.01	<.10	2.4

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 15...	15	.26	.019	<.060	60	4	42	1.3

## DELAWARE RIVER BASIN

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01434025 BISCUIT BROOK ABOVE PIGEON BROOK AT FROST VALLEY, NY

LOCATION.--Lat 41°59'43", long 74°30'05", Ulster County, Hydrologic Unit 02040104, on right bank 0.2 mi upstream from Pigeon Brook, 0.6 mi upstream from mouth and 0.8 mi northeast of Frost Valley. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3.80 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to September 1983, February to May 1983 (occasional discharge measurement).

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 2,060 ft from topographic map.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period June to September, 51.0 ft<sup>3</sup>/s June 28, gage height, 1.50 ft; minimum, 0.40 ft<sup>3</sup>/s Sept. 16; minimum gage height, 0.22 ft Sept. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	4.9	2.0	.89
2									---	4.7	1.8	.71
3									---	4.0	1.4	.64
4									---	5.0	1.4	.63
5									---	4.6	1.3	.63
6									---	3.9	1.3	.59
7									---	3.3	1.1	.57
8									13	3.1	1.0	.51
9									11	3.0	.96	.48
10									9.8	2.7	.86	.44
11									9.1	2.5	4.3	.45
12									8.1	2.5	6.4	.45
13									7.3	2.3	2.6	.45
14									6.6	2.2	1.5	.51
15									6.4	2.1	1.3	.50
16									12	2.1	1.1	.44
17									8.9	1.9	1.0	.93
18									6.9	1.8	1.5	.76
19									6.3	1.7	1.2	.59
20									5.8	3.9	.88	.51
21									5.1	3.3	.77	5.1
22									4.5	2.5	.79	3.9
23									4.2	2.0	.77	.93
24									3.9	2.3	.69	.70
25									3.6	2.3	.69	.66
26									3.4	1.8	.85	.56
27									4.3	1.6	1.3	.57
28									20	1.4	.95	.54
29									8.7	1.4	2.7	.48
30									5.6	1.4	1.9	.67
31									---	1.5	1.0	---
TOTAL									---	83.7	47.31	25.79
MEAN									---	2.70	1.53	.86
MAX									---	5.0	6.4	5.1
MIN									---	1.4	.69	.44
CFSM									---	.71	.40	.23
IN.									---	.82	.46	.25

## DELAWARE RIVER BASIN

01434025 BISCUIT BROOK ABOVE PIGEON BROOK AT FROST VALLEY, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to September 1983.

CHEMICAL DATA: 1983 (e).

MINOR ELEMENT DATA: 1983 (e).

ORGANIC DATA: 1983 (e)

REMARKS.--All cation analysis were performed on water samples which passed through a 0.1-micrometer membrane filter; while anion analysis were performed on water samples which passed through the standard 0.45-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)
APR									
10...	0024	22	25	5.8	5.5	8	5.0	.1	2.4
10...	0521	22	24	5.9	5.0	9	--	<.1	2.4
10...	0932	20	25	5.8	4.5	8	5.0	.1	2.5
10...	1048	25	24	5.6	4.5	9	5.0	.1	2.7
10...	1145	31	23	5.4	4.8	8	5.0	.1	2.3
10...	1245	51	23	5.5	4.8	8	5.0	.1	2.4
10...	1348	91	22	5.3	5.0	8	5.0	.1	2.3
10...	1446	103	22	5.4	5.0	8	5.0	.1	2.5
10...	1546	71	35	5.2	4.8	9	--	<.1	2.2
10...	1643	71	29	5.3	4.8	8	5.0	.1	2.5
10...	1750	71	26	5.2	4.8	7	5.0	.1	2.2
10...	1900	62	39	5.5	4.5	7	5.0	.1	2.2
10...	1954	62	31	5.4	4.5	7	--	<.1	2.2
10...	2044	62	23	5.4	4.5	7	2.0	<.1	2.2
10...	2157	54	23	5.6	4.5	7	5.0	.1	2.2
10...	2242	54	23	5.7	4.5	7	5.0	.1	2.2
10...	2339	51	22	5.6	5.0	7	--	<.1	2.2
11...	0150	48	23	5.6	5.0	8	5.0	.1	2.2
11...	0410	43	23	5.6	5.0	7	--	<.1	2.1
11...	0553	43	23	5.6	5.0	7	--	<.1	2.2
11...	0800	36	23	5.7	5.0	9	--	<.1	2.6
MAY									
19...	1635	8.3	29	6.2	8.5	9	5.0	.1	2.6
JUL									
08...	1030	3.3	--	--	--	10	--	<.1	2.9
AUG									
12...	1325	18	28	6.3	4.0	10	--	<.1	3.1
15...	1300	1.3	28	6.4	14.0	10	5.0	.1	2.9



## DELAWARE RIVER BASIN

143

01434025 BISCUIT BROOK ABOVE PIGEON BROOK AT FROST VALLEY, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
APR									
10...	.5	.4	.9	2.0	1.3	6.1	.5	<.01	<.10
10...	.7	.7	.2	3.0	.5	6.3	.4	<.01	<.10
10...	.5	.5	.2	2.0	.5	6.2	.5	<.01	<.10
10...	.5	<.2	.2	2.0	.9	6.1	.4	<.01	<.10
10...	.5	.4	.2	1.0	.2	5.9	.5	<.01	<.10
10...	.5	.8	.3	2.0	.6	5.7	.4	<.01	<.10
10...	.5	.3	.4	2.0	.5	5.5	.4	<.01	<.10
10...	.5	<.2	.3	2.0	.4	5.5	.4	<.01	<.10
10...	1.0	.4	.3	<1.0	.2	5.6	.5	<.01	<.10
10...	.4	.6	.3	2.0	.1	5.8	.4	<.01	<.10
10...	.3	.5	.3	2.0	.2	5.7	.4	<.01	<.10
10...	.4	.6	.2	2.0	.3	5.8	.3	<.01	<.10
10...	.5	.6	.3	2.0	.7	5.8	.4	<.01	<.10
10...	.4	.6	.3	2.0	.2	5.8	.3	<.01	<.10
10...	.4	.6	.3	2.0	.5	5.9	.4	<.01	<.10
10...	.4	.6	.3	2.0	.5	5.9	.4	<.01	<.10
10...	.4	.6	.3	2.0	.3	5.9	.4	<.01	<.10
11...	.5	.4	.3	1.0	.3	5.8	.6	<.01	<.10
11...	.5	.8	.3	2.0	.3	5.9	.4	<.01	<.10
11...	.4	1.6	.5	1.0	2.5	5.9	.4	<.01	<.10
11...	.6	1.1	.4	2.0	.5	6.0	.5	<.01	<.10
MAY									
19...	.5	.4	.2	3.0	3.0	7.1	.5	<.01	<.10
JUL									
08...	.7	.7	.2	3.0	4.0	7.7	.8	<.01	<.10
AUG									
12...	.7	.5	.3	3.0	--	7.1	.6	<.01	<.10
15...	.6	.6	.2	3.0	1.1	7.8	.7	<.01	<.10

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
APR									
10...	1.4	16	.58	--	<.060	200	53	18	3.6
10...	1.6	14	.37	--	<.060	100	5	14	2.3
10...	1.6	14	.37	<.001	<.060	70	6	15	2.2
10...	1.6	--	.55	--	<.060	80	7	15	2.4
10...	1.5	16	.96	--	<.060	80	7	15	2.7
10...	1.3	14	.51	--	<.060	100	22	17	2.7
10...	1.5	14	.58	.005	<.060	100	21	27	5.9
10...	2.1	--	.34	--	<.060	200	19	36	4.0
10...	1.3	19	1.60	--	<.060	200	17	33	7.1
10...	1.4	13	.35	--	<.060	200	16	35	3.5
10...	1.4	13	.33	--	<.060	200	14	35	4.4
10...	1.4	13	.36	--	<.060	200	13	35	3.0
10...	1.4	13	.35	.011	<.060	200	15	35	3.0
10...	1.4	13	.36	--	<.060	200	15	33	3.1
10...	1.5	13	.38	--	<.060	200	15	34	3.4
10...	1.4	13	.38	--	<.060	200	16	33	3.1
10...	1.5	13	.36	--	<.060	200	16	33	3.1
11...	1.5	15	.66	.005	<.060	200	15	31	3.2
11...	1.4	14	.39	--	<.060	200	16	29	4.1
11...	1.4	17	.57	.004	<.060	200	27	27	3.1
11...	1.5	15	.41	--	<.060	200	16	27	4.3
MAY									
19...	1.5	16	.16	.050	<.060	100	7	3	1.8
JUL									
08...	2.2	19	.27	.005	<.060	30	6	1	2.0
AUG									
12...	2.2	18	.44	.019	<.001	90	14	7	3.8
15...	2.4	18	.38	.018	<.002	60	<3	<1	1.4

## DELAWARE RIVER BASIN

0143402705 PIGEON BROOK AT MOUTH AT FROST VALLEY, NY

LOCATION.--Lat 41°59'13", long 74°30'11", Ulster County, Hydrologic Unit 02040104, at bridge on private road, 250 ft upstream from Biscuit Brook, at Frost Valley, and 0.4 mi north of West Branch Road.

DRAINAGE AREA.--2.67 mi<sup>2</sup>.

PERIOD OF RECORD.--April to September 1983.

CHEMICAL DATA: 1983 (a).

MINOR ELEMENT DATA: 1983 (a).

ORGANIC DATA: OC--1983 (a)

REMARKS.--All cation analysis were performed on water samples which passed through a 0.1-micrometer membrane filter; while anion analysis were performed on water samples which passed through the standard 0.45-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	
APR 11...	1055	--	23	6.0	5.0	9	5.0	.1	2.6	
AUG 15...	1340	.96	33	6.6	14.5	12	--	<.1	3.9	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
APR 11...	.5	.7	.2	3.0	.8	6.0	.4	<.01	<.10	
AUG 15...	.7	.6	.2	5.0	3.5	7.9	.7	<.01	<.10	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
APR 11...	1.5	14	.32	<.001	<.060	100	10	12	2.6	
AUG 15...	2.5	20	.33	.196	<.060	60	4	<1	1.8	

## DELAWARE RIVER BASIN

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0143410505 HIGH FALLS BROOK AT FROST VALLEY, NY

LOCATION.--Lat 41°58'33", long 74°31'19", Ulster County, Hydrologic Unit 02040104, at bridge on West Branch Road, 0.1 mi upstream from mouth and 1.0 mi southwest of Frost Valley.

DRAINAGE AREA.--2.76 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1983.

CHEMICAL DATA: 1983 (a).

MINOR ELEMENT DATA: 1983 (a).

ORGANIC DATA: OC--1983 (a)

REMARKS.--All cation analysis were performed on water samples which passed through a 0.1-micrometer membrane filter; while anion analysis were performed on water samples which passed through the standard 0.45-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 15...	1520	1.0	38	7.1	14.5	16	5.3	.7

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)
AUG 15...	.7	.2	8.0	14	8.1	.6	<.01	<.10	2.6

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
AUG 15...	28	.35	.041	<.060	60	<3	<1	1.3

## DELAWARE RIVER BASIN

01435000 NEVERSINK RIVER NEAR CLARYVILLE, NY

LOCATION.--Lat 41°53'24", long 74°35'25", Sullivan County, Hydrologic Unit 02040104, on left bank 50 ft downstream from covered bridge, 300 ft upstream from small tributary, 2.2 mi downstream from confluence of East and West Branches, and 2.2 mi southwest of Claryville.

DRAINAGE AREA.--66.6 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1951 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,522.37 ft National Geodetic Vertical Datum of 1929. Prior to October 1, 1974, at datum 6.00 ft higher. Oct. 1, 1974 to Sept. 30, 1979 at datum 5.00 ft higher.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--32 years, 189 ft<sup>3</sup>/s, 38.54 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,600 ft<sup>3</sup>/s Mar. 21, 1980; maximum gage height, 13.83 ft present datum, July 10, 1952; minimum discharge, 6.8 ft<sup>3</sup>/s Sept. 24, 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 25, 1950, reached a stage of about 15.0 ft present datum, from floodmarks, discharge, 23,400 ft<sup>3</sup>/s by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	0945	*4,810	*9.94	Apr. 16	1215	4,560	9.84

Minimum discharge, 14 ft<sup>3</sup>/s Sept. 21, gage height, 5.18 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	24	182	180	130	96	200	472	357	108	39	29
2	24	24	161	166	146	169	195	535	290	102	44	25
3	23	23	146	156	2610	154	232	419	251	89	38	22
4	22	28	143	127	847	134	271	456	478	94	34	21
5	21	268	134	136	383	154	250	353	324	108	33	21
6	21	108	136	139	294	158	223	301	282	89	33	19
7	21	76	127	125	250	386	225	268	336	79	31	18
8	23	66	114	117	220	396	333	261	257	75	29	17
9	26	58	110	103	200	409	370	282	224	72	27	17
10	26	54	94	111	180	380	675	237	203	69	26	16
11	23	52	88	437	170	364	680	215	188	65	50	16
12	23	52	80	246	160	319	412	200	171	62	100	16
13	24	282	70	165	160	263	327	188	156	60	73	16
14	39	166	66	130	150	240	289	177	153	59	47	16
15	34	123	64	120	140	251	280	194	153	58	37	15
16	31	102	630	110	140	252	2340	224	146	59	32	15
17	29	91	366	110	130	244	968	182	151	55	28	16
18	27	84	244	100	120	231	610	166	141	52	32	17
19	25	81	212	98	120	1850	456	158	129	49	32	16
20	24	76	194	96	116	945	389	268	123	48	26	15
21	27	78	172	94	115	1000	320	251	110	66	24	23
22	27	89	153	94	121	857	301	215	100	59	23	123
23	25	206	148	250	121	472	366	440	93	49	23	46
24	24	164	153	546	114	355	968	286	87	50	22	31
25	23	139	185	280	107	296	1490	244	83	54	21	24
26	23	125	320	213	98	256	772	228	79	48	21	21
27	23	116	244	180	92	240	643	275	78	44	26	20
28	22	106	244	160	88	290	749	241	424	40	25	18
29	22	237	254	150	---	262	657	268	254	39	46	18
30	22	241	218	140	---	222	617	506	134	39	54	18
31	23	---	191	140	---	207	---	435	---	38	35	---
TOTAL	774	3339	5643	5219	7522	11852	16608	8945	5955	1978	1111	705
MEAN	25.0	111	182	168	269	382	554	289	199	63.8	35.8	23.5
MAX	39	282	630	546	2610	1850	2340	535	478	108	100	123
MIN	21	23	64	94	88	96	195	158	78	38	21	15
CAL YR 1982	TOTAL	61784	MEAN	169	MAX	3330	MIN	19				
WTR YR 1983	TOTAL	69651	MEAN	191	MAX	2610	MIN	15				



## DELAWARE RIVER BASIN

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01436000 NEVERSINK RIVER AT NEVERSINK, NY

LOCATION.--Lat 41°49'12", long 74°38'09", Sullivan County, Hydrologic Unit 02040104, on right bank at downstream end of outlet channel, 1,650 ft downstream from Neversink Dam and State Highway 55, 1.7 mi southwest of Neversink, and 2.6 mi upstream from Wynkoop Brook.

DRAINAGE AREA.--92.6 mi<sup>2</sup>.

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

REVISED RECORDS.--WDR NY 1972: 1961 (M), 1968 (M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,255.24 ft Board of Water Supply, City of New York datum. Prior to Jan. 17, 1953, water-stage recorder at site 650 ft downstream at datum 0.20 ft lower. Jan. 17, 1953 to Apr. 16, 1954, water-stage recorder at present site at datum 0.41 ft higher.

REMARKS.--Records good. Subsequent to June 1953, entire flow from 91.8 mi<sup>2</sup> of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply (see Reservoirs in Delaware River Basin). Remainder of flow (except for conservation release 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, 22,300 ft<sup>3</sup>/s Nov. 25, 1950, from rating curve extended above 2,600 ft<sup>3</sup>/s on basis of contracted-opening and critical-depth measurements of peak flow; maximum gage height, 11.65 ft Sept. 27, 1942, site and datum then in use; no flow for all or part of each day Sept. 22-24, Oct. 26-29, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,370 ft<sup>3</sup>/s Apr. 25, gage height, 4.89 ft; minimum, 2.0 ft<sup>3</sup>/s Mar. 1, gage height, 2.20 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	21	5.8	6.2	6.2	5.3	5.8	252	46	42	41	41
2	64	26	5.8	6.0	6.4	7.6	7.0	251	46	49	41	41
3	64	26	5.8	6.0	7.4	7.6	7.3	164	46	72	42	41
4	64	25	5.8	6.0	6.0	7.8	7.1	114	47	86	42	47
5	64	24	5.8	6.0	5.2	7.9	7.7	78	46	70	42	64
6	64	24	5.8	6.2	5.2	7.8	8.9	47	46	39	50	64
7	64	24	11	6.4	5.7	8.0	10	43	46	39	64	56
8	64	24	18	6.2	5.8	8.0	14	44	46	43	62	40
9	66	24	11	6.2	5.8	7.9	14	46	46	42	63	39
10	66	24	24	6.4	5.8	8.1	15	44	46	41	60	41
11	66	24	24	6.6	5.8	6.5	16	44	45	40	40	42
12	66	18	24	6.4	6.0	4.9	33	44	45	48	40	43
13	63	10	23	6.4	5.8	4.7	45	44	45	62	39	43
14	54	17	24	6.4	5.8	4.8	45	45	54	63	40	43
15	64	10	23	6.4	6.0	4.8	45	45	71	64	41	43
16	64	24	16	6.4	6.0	4.8	48	45	69	64	72	43
17	66	24	6.0	6.2	6.0	4.8	46	44	70	64	42	43
18	66	24	6.2	6.2	6.2	5.0	47	45	70	56	42	43
19	66	24	6.2	6.2	6.2	5.6	47	45	71	43	40	43
20	68	24	6.2	6.2	6.2	5.1	47	45	62	40	39	43
21	68	24	6.2	6.4	6.2	5.6	47	45	43	40	40	45
22	66	7	6.0	6.4	6.2	5.4	47	45	43	40	41	45
23	66	5.0	6.2	7.0	6.2	5.4	47	45	51	41	40	43
24	66	11	6.2	6.6	6.2	6.3	47	45	63	41	41	45
25	64	24	6.0	6.6	7.9	6.3	716	45	66	41	41	43
26	64	24	6.0	6.4	9.8	6.6	1130	46	68	40	41	42
27	68	23	6.0	6.2	9.8	6.7	818	45	70	41	41	41
28	66	16	6.0	6.2	7.4	6.9	806	45	57	41	41	39
29	66	5.2	6.0	6.2	---	6.6	833	45	40	41	41	39
30	49	5.5	6.0	6.2	---	6.8	576	46	41	41	41	41
31	19	---	6.2	6.2	---	5.2	---	46	---	41	41	---
TOTAL	1949	595.7	324.2	195.4	179.2	194.8	5582.8	2027	1605	1515	1391	1326
MEAN	62.9	19.9	10.5	6.30	6.40	6.28	186	65.4	53.5	48.9	44.9	44.2
MAX	68	26	24	7.0	9.8	8.1	1130	252	71	86	72	64
MIN	19	5.0	5.8	6.0	5.2	4.7	5.8	43	40	39	39	39
CAL YR 1982	TOTAL	16412.9	MEAN	45.0	MAX	675	MIN	5.0				
WTR YR 1983	TOTAL	16885.1	MEAN	46.3	MAX	1130	MIN	4.7				

## DELAWARE RIVER BASIN

01436500 NEVERSINK RIVER AT WOODBOURNE, NY

LOCATION.--Lat 41°45'24", long 74°35'52", Sullivan County, Hydrologic Unit 02040104, on left bank 0.2 mi downstream from highway bridge at Woodbourne, 0.3 mi upstream from outlet of South Wind Lake. Water-quality sampling site at discharge station.

DRAINAGE AREA.--113 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to September 1973, October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,180 ft, from topographic map. Prior to Sept. 20, 1938, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor. Subsequent to June 1953, entire flow from 91.8 mi<sup>2</sup> of drainage area controlled by Neversink Reservoir. 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, 22,000 ft<sup>3</sup>/s Nov. 26, 1950, gage height, 11.19 ft on basis of slope-area measurement; maximum gage height, 11.2 ft July 22, 1938, from floodmarks and graph based on gage readings; minimum discharge, 6.7 ft<sup>3</sup>/s June 27, 1953; minimum gage height, 0.80 ft Aug. 25, 27, 28, 1949; minimum daily discharge, 8.2 ft<sup>3</sup>/s June 25, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,510 ft<sup>3</sup>/s Apr. 16, 25, gage height, 4.50 ft; minimum discharge, 15 ft<sup>3</sup>/s Nov. 15, 16, Jan. 4, 5; minimum gage height 1.12 ft Jan. 4, 5; minimum daily discharge, 18 ft<sup>3</sup>/s Nov. 15, Dec. 5-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	21	25	28	44	30	67	340	121	66	53	50
2	65	25	21	26	43	70	65	328	104	66	55	49
3	65	27	19	25	394	71	123	239	93	83	49	47
4	65	29	19	24	139	62	117	193	245	104	47	50
5	65	65	18	23	97	70	86	132	130	99	49	69
6	65	37	18	24	64	64	76	97	128	56	50	69
7	65	30	18	22	54	106	73	85	154	50	69	66
8	65	28	32	21	48	106	86	85	110	53	67	47
9	68	28	20	20	44	115	93	95	95	52	67	45
10	70	28	39	20	40	104	190	79	87	49	64	46
11	65	27	37	83	37	121	164	75	81	49	52	47
12	65	27	34	51	34	106	115	71	77	50	59	49
13	65	33	36	40	32	81	110	69	73	67	53	49
14	55	34	39	31	30	73	99	67	73	67	49	49
15	68	18	37	27	29	67	99	137	97	69	49	47
16	65	27	68	25	28	61	857	182	97	71	81	47
17	65	28	46	24	27	56	324	110	97	69	47	49
18	64	28	32	23	27	56	193	87	93	66	52	49
19	64	29	28	22	27	332	161	83	106	53	47	49
20	68	29	24	22	26	156	159	93	99	52	46	47
21	65	29	21	22	26	232	156	87	64	46	45	71
22	64	29	20	22	26	185	167	126	58	47	46	87
23	64	29	20	22	42	106	156	164	59	46	46	53
24	64	22	20	193	39	90	190	106	73	63	46	53
25	64	34	19	115	31	76	826	89	75	52	46	52
26	64	34	58	85	29	68	1250	97	73	49	47	49
27	67	33	43	70	27	65	912	115	77	47	56	47
28	67	30	40	60	26	117	863	95	211	46	50	46
29	65	36	45	54	---	117	887	144	130	46	52	45
30	62	36	34	50	---	85	710	185	79	46	52	47
31	21	---	29	46	---	73	---	144	---	46	52	---
TOTAL	1971	910	959	1320	1510	3121	9374	3999	3059	1825	1643	1570
MEAN	63.6	30.3	30.9	42.6	53.9	101	312	129	102	58.9	53.0	52.3
MAX	70	65	68	193	394	332	1250	340	245	104	81	87
MIN	21	18	18	20	26	30	65	67	58	46	45	45
CAL YR 1982	TOTAL	28013	MEAN	76.7	MAX	816	MIN	18				
WTR YR 1983	TOTAL	31261	MEAN	85.6	MAX	1250	MIN	18				

## DELAWARE RIVER BASIN

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01436500 NEVERSINK RIVER AT WOODBOURNE, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1965, 1972, 1978 to current year.

CHEMICAL DATA: 1964 (b), 1965 (c), 1972 (a).

NUTRIENT DATA: 1964 (b), 1965 (c), 1972 (a).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July and August, 1978, May 1979 to current year.

INSTRUMENTATION.--Temperature recorder since October 1977.

REMARKS.--No record Oct. 23 to Dec. 1 and Mar. 25-30, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1979-83), 26.5°C June 16, 1981; minimum, freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 20.0°C July 22, Aug. 19, 20, 23; minimum, freezing point Mar. 24, 27, 28, 30.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

## DELAWARE RIVER BASIN

01436500 NEVERSINK RIVER AT WOODBOURNE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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



## DELAWARE RIVER BASIN

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01437500 NEVERSINK RIVER AT GODEFFROY, NY

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

DRAINAGE AREA.--307 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 1502: 1951(M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 459.66 ft 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 higher).

REMARKS.--Records fair 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<sup>2</sup> 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<sup>3</sup>/s Aug. 19, 1955, gage height, 12.49 ft, from rating curve extended above 11,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; practically no flow several times in July 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,910 ft<sup>3</sup>/s Apr. 16, gage height, 8.71 ft; minimum discharge, 82 ft<sup>3</sup>/s Nov. 1, gage height, 3.25 ft; minimum gage height, 2.99 ft Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	103	197	190	190	327	737	1350	974	266	125	119
2	140	149	176	170	190	534	646	1210	845	240	143	109
3	137	134	162	150	1680	769	942	1090	715	224	134	103
4	137	125	155	140	1520	737	1180	1030	1170	220	122	103
5	131	373	159	140	900	698	961	879	1120	240	122	101
6	128	279	152	130	560	683	836	721	900	216	125	101
7	122	208	146	130	450	888	729	609	1260	176	125	101
8	131	179	137	120	380	1020	737	561	979	159	137	106
9	146	162	143	120	350	1210	897	602	786	155	131	94
10	140	159	106	120	320	1140	1260	534	660	149	128	89
11	117	149	137	322	290	1240	1930	483	574	140	137	91
12	125	143	140	352	270	1190	1370	452	502	134	284	91
13	131	224	96	266	250	1030	1160	423	441	134	275	96
14	155	244	100	220	230	933	988	389	400	140	197	96
15	137	201	140	210	210	836	897	384	373	140	165	94
16	149	169	249	200	200	753	5070	819	384	162	149	91
17	143	169	362	190	190	675	4310	714	452	149	165	94
18	137	162	220	190	180	646	2730	547	389	140	140	96
19	137	155	190	180	180	2220	2140	464	362	137	143	98
20	140	149	170	180	170	1870	1920	458	435	131	131	91
21	137	143	160	180	170	1790	1720	452	357	131	119	103
22	131	143	160	170	170	2200	1630	423	298	190	117	317
23	125	149	150	170	368	1520	1720	698	261	146	114	149
24	125	155	150	700	384	1230	2000	646	236	193	109	114
25	131	140	150	500	360	1030	3540	536	232	224	106	103
26	137	143	266	362	330	871	3680	539	220	172	106	103
27	137	143	284	302	310	778	2710	865	208	146	106	98
28	134	134	249	270	290	1260	2220	892	288	131	122	94
29	134	193	253	230	---	1280	2020	827	561	128	117	89
30	131	224	240	210	---	1030	1870	1070	327	125	119	96
31	125	---	216	200	---	845	---	1110	---	125	119	---
TOTAL	4182	5203	5615	7014	11092	33233	54550	21777	16709	5163	4332	3230
MEAN	135	173	181	226	396	1072	1818	702	557	167	140	108
MAX	155	373	362	700	1680	2220	5070	1350	1260	266	284	317
MIN	117	103	96	120	170	327	646	384	208	125	106	89
CAL YR 1982	TOTAL	129475	MEAN	355	MAX	2520	MIN	94				
WTR YR 1983	TOTAL	172100	MEAN	472	MAX	5070	MIN	89				

## DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, PA, Hydrologic Unit 02040104, on right bank 0.4 mi upstream from toll bridge on U.S. Route 206 at Montague, 0.8 mi downstream from Sawkill Creek, and at mile 246.3.

DRAINAGE AREA.--3,480 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft 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 lower.

REMARKS.--Water-discharge records excellent except those for winter months, which are 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.--44 years, 5,829 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250,000 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 35.15 ft, from rating curve extended above 90,000 ft<sup>3</sup>/s on basis of flood-routing study; minimum, 382 ft<sup>3</sup>/s Aug. 24, 1954, gage height, 3.83 ft, minimum daily, 412 ft<sup>3</sup>/s Aug. 23, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft from floodmark, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81,100 ft<sup>3</sup>/s Apr. 16, gage height, 19.80 ft; minimum discharge, 848 ft<sup>3</sup>/s Sept. 28, gage height, 4.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2010	1760	2680	3410	3750	3780	7150	20600	7990	4860	1810	1940
2	2000	1750	2580	2980	3530	4630	6560	19900	7410	4010	1890	1500
3	1910	1790	2230	2790	10100	6900	7310	20600	6510	3620	1570	1400
4	1900	1600	2000	2710	23500	7010	9460	19400	7020	3400	1790	1670
5	1810	2270	1830	2460	14400	6260	9020	17800	8390	2830	1780	1640
6	1940	2190	1740	2530	10000	5740	7880	15000	7190	2870	2040	1600
7	1830	1790	1780	2510	8140	6470	7210	11700	9360	2770	1990	2570
8	1810	1690	1590	2220	7640	8680	7410	9730	9830	2540	2010	2300
9	1900	1590	1480	1760	6880	9430	9700	10600	8310	2420	1860	1860
10	1940	1470	1490	1660	6000	9400	11200	10700	7400	1720	1840	1700
11	1860	1650	1710	2580	5530	10700	20600	9400	6550	1420	1890	1690
12	1810	1760	1060	4050	5180	10600	16800	8300	5990	1920	3020	1730
13	1710	2000	1270	3760	3900	8910	13300	7360	5610	2140	2980	2200
14	1730	2270	1310	3100	4100	8200	11300	6390	4560	2180	2210	1230
15	1450	2520	1420	2700	4800	8240	10100	5540	3930	2120	1590	1260
16	1520	2190	2270	2100	4600	7670	45300	7340	3610	2130	1370	1670
17	2010	1810	4850	2200	4540	7080	56500	7580	3790	2010	1450	1690
18	1870	1690	5210	2800	4310	6660	30100	6400	3670	1760	1650	1630
19	1870	1630	3450	2500	4250	9240	22500	5620	3300	2470	1720	1430
20	1920	1740	3140	2400	3520	10700	19400	5210	3330	2410	2450	2300
21	1880	1790	3100	2600	3380	11400	17900	5710	3340	2240	1790	2240
22	1670	1770	2820	2600	3500	16900	17400	4880	3430	2510	1640	2910
23	1780	1860	2550	2200	4420	14400	17600	5760	3080	2290	2180	2570
24	1830	2280	2340	4900	5140	11700	19600	6200	2820	1630	2090	1580
25	1810	2220	2330	8200	5040	10200	37000	5520	2600	2090	2340	1210
26	1860	1860	2570	7280	4440	8390	41800	5030	1880	2340	1830	1420
27	1840	1740	6100	5840	3020	7240	35100	5820	1720	1660	1900	1430
28	1890	1610	5820	5140	3100	9690	27500	6530	2530	1480	1810	1090
29	1900	1760	5730	4350	---	10500	23900	5530	7290	1950	1770	1450
30	1900	1990	5100	3530	---	9180	21900	6290	6610	1850	2020	1610
31	1760	---	4160	3450	---	7910	---	8400	---	1470	1990	---
TOTAL	56920	56040	87710	103310	170710	273810	588500	290840	159050	73110	60270	52520
MEAN	1836	1868	2829	3333	6097	8833	19620	9382	5302	2358	1944	1751
MAX	2010	2520	6100	8200	23500	16900	56500	20600	9830	4860	3020	2910
MIN	1450	1470	1060	1660	3020	3780	6560	4880	1720	1420	1370	1090
CAL YR 1982	TOTAL		1556120	MEAN		4263	MAX	29200	MIN		1060	
WTR YR 1983	TOTAL		1972790	MEAN		5405	MAX	56500	MIN		1060	

## RESERVOIRS IN DELAWARE RIVER BASIN

- 01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, Hydrologic Unit 02040102, near release chamber at Downsview Dam on East Branch Delaware River, and 1.6 mi east of Downsview, N.Y. DRAINAGE AREA, 371 mi<sup>2</sup>. 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 between minimum operating level, elevation, 1,152.0 ft and crest of spillway, elevation, 1,280.0 ft. Capacity: at crest of spillway 149,700 mil gal; at minimum operating level, 9,609 mil gal; at sill of diversion tunnel, elevation, 1,143.0 ft, 6,098 mil gal; in dead storage below release outlet, elevation, 1,126.50 ft, 1,898 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through East Delaware Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin (see elsewhere in this section), 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 PERIOD OF RECORD: Maximum contents observed, 154,027 mil gal Apr. 5, 1960, elevation, 1,282.27 ft; minimum observed (after first filling), 9,575 mil gal Dec. 26, 1964, elevation, 1,151.92 ft.
- EXTREMES FOR CURRENT YEAR: Maximum contents, 152,379 mil gal Apr. 27, elevation, 1,281.39 ft; minimum, 70,424 mil gal Dec. 16, elevation, 1,227.42 ft.
- 01424997 CANNONSVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, Hydrologic Unit 02040101, in emergency gate tower at Cannonsville Dam on West Branch Delaware River, and 1.8 mi southeast of Stilesville, N.Y. DRAINAGE AREA, 454 mi<sup>2</sup>. PERIOD OF RECORD, October 1963 to current year. REVISED RECORDS, WDR NY-72-1: 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 between minimum operating level, elevation, 1,040.0 ft and crest of spillway, elevation, 1,150.0 ft. Capacity, at crest of spillway, 98,618 mil gal; at minimum operating level, 2,912 mil gal; at mouth of inlet channel to diversion tunnel, elevation, 1,035.0 ft, 1,892 mil gal; in dead storage below release outlet elevation, 1,020.5 ft, 328 mil gal. Figures given herein represent total contents. Impounded water is diverted for New York City water supply via West Delaware Tunnel to Rondout Reservoir in Hudson River basin (see elsewhere in this section); is released in Delaware River for downstream low flow augmentation, as directed by the Delaware River Master; and is released for conservation flow in the Delaware River. No diversion prior to January 29, 1964. Records furnished by Bureau of Water Resources Development, City of New York.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents, 108,116 mil gal Mar. 15, 1977, elevation, 1,155.85 ft; minimum observed (after first filling), 11,901 mil gal Nov. 7, 1968, elevation, 1,066.24 ft.
- EXTREMES FOR CURRENT YEAR: Maximum contents, 105,539 mil gal Apr. 26, elevation, 1,154.30 ft; minimum, 18,060 mil gal Nov. 22, elevation, 1,077.13 ft.
- 01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'25", long 74°47'00", Sullivan County, Hydrologic Unit 02040104, at dam on Mongaup River, and 1.8 mi northwest of Fowlersville, N.Y. DRAINAGE AREA, 118 mi<sup>2</sup> 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.
- Reservoir is formed by an earthfill dam. Storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft<sup>3</sup> between elevations 1,010.0 ft, minimum operating pool, and 1,071.2 ft, top of flashboards. Capacity below elevation 1,010.0 ft, minimum operating pool, about 212.7 mil ft<sup>3</sup>. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft. Water is received from Cliff Lake, Lebanon Lake, and Toronto Reservoir. Records furnished by Orange and Rockland Utilities, Inc.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,461.6 mil ft<sup>3</sup> Mar. 14, 1977, elevation, 1,071.8 ft; minimum (after first filling), -141.4 mil ft<sup>3</sup> Dec. 2, 1938, elevation, 987.5 ft.
- EXTREMES FOR CURRENT YEAR: Maximum contents, 1,284 mil ft<sup>3</sup> Mar. 31, Apr. 1, elevation, 1,067.4 ft; minimum, 461.7 mil ft<sup>3</sup> Sept. 29, elevation, 1,041.1 ft.
- 01433100 TORONTO RESERVOIR.--Lat 41°37'15", long 74°49'55", Sullivan County, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi southeast of village of Black Lake, N.Y. DRAINAGE AREA, 23.2 mi<sup>2</sup>. PERIOD OF RECORD, January 1926 to current year. REVISED RECORDS, WSP 1552: 1951-54. WSP 1702: 1959 (M). GAGE, 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.
- Reservoir is formed by an earthfill dam completed July 24, 1926. Storage began Jan. 13, 1926. Usable capacity 1,098.2 mil ft<sup>3</sup> between elevations 1,165.0 ft, minimum operating pool, and 1,220.0 ft, top of permanent flashboards. Capacity below elevation 1,165.0 ft, minimum operating pool, about 26.8 mil ft<sup>3</sup>. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft. Records furnished by Orange and Rockland Utilities, Inc.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 1,171.2 mil ft<sup>3</sup> July 20, 1945, elevation, 1,222.0 ft; minimum observed (after first filling), -26.8 mil ft<sup>3</sup> Nov. 15, 1928, elevation, 1,144.5 ft.
- EXTREMES FOR CURRENT YEAR: Maximum contents observed, 1,116 mil ft<sup>3</sup> May 31, June 1, elevation, 1,220.5 ft; minimum observed, 214.7 mil ft<sup>3</sup> Oct. 1, elevation, 1,185.2 ft.
- 01433200 CLIFF LAKE.--Lat 41°35'00", long 74°47'40", Sullivan County Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi northwest of Fowlersville, N.Y. DRAINAGE AREA, 6.46 mi<sup>2</sup>, excluding area above Toronto Reservoir. PERIOD OF RECORD, January 1939 to current year. REVISED RECORDS, WSP 1552: 1951-54. WDR NY-75-1: 1974(m). GAGE, 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.
- Reservoir is formed by a concrete gravity-type dam. Storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft<sup>3</sup> between elevations 1,043.3 ft, minimum operating pool, and 1,072.0 ft, top of permanent flashboards. Capacity below elevation 1,043.3 ft, minimum operating pool, about 6.54 mil ft<sup>3</sup>. 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. Records furnished by Orange and Rockland Utilities, Inc.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 145.44 mil ft<sup>3</sup> July 30, 31, 1945, elevation, 1,073.1 ft; minimum observed (after first filling), about -6.54 mil ft<sup>3</sup> Mar. 16, 1963, elevation, 1,038.0 ft.
- EXTREMES FOR CURRENT YEAR: Maximum contents observed, 116.5 mil ft<sup>3</sup> June 30, July 1, elevation, 1,069.6 ft; minimum observed, 9.76 mil ft<sup>3</sup> Sept. 29, elevation, 1,048.0 ft.



## DELAWARE RIVER BASIN

## RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01435900 NEVERSINK RESERVOIR.--Lat 41°49'40", long 74°38'21", Sullivan County, Hydrologic Unit 02040104, at a gate-house at Neversink Dam on Neversink River, and 2 mi southwest of Neversink, N.Y. DRAINAGE AREA, 91.8 mi<sup>2</sup>. 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 between minimum operating level, elevation, 1,319.0 ft and crest of spillway, elevation, 1,440.0 ft. Capacity at crest of spillway 37,146 mil gal; at minimum operating level, 2,205 mil gal; dead storage below diversion sill and outlet sill, elevation 1,314.0 ft, 1,680 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through Neversink-Grahamsville Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin, for water supply of City of New York (see elsewhere in this section); 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 PERIOD OF RECORD: Maximum contents observed, 37,978 mil gal Apr. 25, 1961, elevation, 1,441.67 ft; minimum observed (after first filling), 1,985 mil gal Nov. 25, 1964, elevation, 1,316.98 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 37,514 mil gal Apr. 26, elevation, 1,440.74 ft; minimum observed, 13,522 mil gal Dec. 16, elevation, 1,378.16 ft.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
01416900 Pepacton Reservoir ##				01424997 Cannonsville Reservoir ##			01433000 Swinging Bridge Reservoir #		
Sept. 30	1,257.39	111,335		1,109.29	45,642		1,060.8	1,038	
Oct. 31	1,243.07	90,332	-1,049	1,085.96	24,166	-1,072	1,059.8	1,003	- 13.0
Nov. 30	1,229.78	73,226	- 882	1,079.72	19,728	- 229	1,061.8	1,074	+ 27.2
Dec. 31	1,229.58	72,986	- 12.0	1,094.27	30,924	+ 559	1,061.5	1,063	- 4.0
CAL YR 1982	-	-	- 40.9	-	-	- 100	-	-	+ 2.0
Jan. 31	1,230.80	74,458	+ 73.5	1,101.73	37,896	+ 348	1,062.5	1,099	+ 13.4
Feb. 28	1,240.77	87,197	+ 704	1,116.02	53,139	+ 842	1,056.8	902	- 81.2
Mar. 31	1,260.20	115,773	+1,426	1,132.76	73,912	+1,037	1,067.4	1,284	+142
Apr. 30	1,281.16	151,950	+1,866	1,153.15	103,688	+1,536	1,066.0	1,229	- 24.8
May 31	1,279.53	148,935	- 150	1,151.21	100,565	- 156	1,065.4	1,206	- 8.5
June 30	1,277.69	145,573	- 173	1,149.22	97,431	- 162	1,065.0	1,191	- 5.9
July 31	1,269.90	131,833	- 686	1,140.99	85,216	- 610	1,062.4	1,095	- 35.8
Aug. 31	1,261.42	117,729	- 704	1,124.20	62,911	-1,113	1,060.8	1,038	- 21.3
Sept. 30	1,252.33	103,600	- 729	1,111.61	48,179	- 760	1,041.1	462	-222
WTR YR 1983	-	-	- 32.8	-	-	+ 10.8	-	-	- 18.3

Date	Elevation (feet)	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01433100 Toronto Reservoir #				01433200 Cliff Lake #			01435900 Neversink Reservoir ##		
Sept. 30	1,185.2	215		1,060.9	58.8		1,411.56	24,628	
Oct. 31	1,185.3	216	+ 0.6	1,059.8	52.9	- 2.2	1,399.09	20,024	-230
Nov. 30	1,185.8	225	+ 3.2	1,061.7	63.4	+ 4.0	1,383.48	15,026	-258
Dec. 31	1,187.5	254	+ 10.8	1,061.6	62.8	- 0.2	1,381.77	14,531	- 24.7
CAL YR 1982	-	-	- 2.1	-	-	+ 0.3	-	-	- 20.6
Jan. 31	1,191.5	327	+ 27.4	1,062.4	67.5	+ 1.8	1,387.03	16,088	+ 77.7
Feb. 28	1,197.1	447	+ 49.6	1,056.8	38.9	-11.8	1,397.23	19,383	+182
Mar. 31	1,205.8	666	+ 81.6	1,067.8	103	+23.9	1,421.78	28,792	+470
Apr. 30	1,218.0	1,029	+140	1,067.2	98.6	- 1.7	1,440.42	37,355	+442
May 31	1,220.5	1,116	+ 32.7	1,066.3	92.3	- 2.4	1,439.69	36,993	- 18.1
June 30	1,217.0	995	- 46.9	1,069.6	116	+ 9.3	1,430.67	32,706	-221
July 31	1,209.4	764	- 86.1	1,065.3	85.6	-11.5	1,419.70	27,917	-239
Aug. 31	1,196.3	429	-125	1,066.3	92.3	+ 2.5	1,410.65	24,274	-182
Sept. 30	1,196.0	422	- 2.6	1,048.0	9.8	-31.8	1,401.87	21,005	-169
WTR YR 1983	-	-	+ 6.6	-	-	- 1.6	-	-	- 15.4

# Elevation at 2400 hours.

## Elevation at 0900 hours on first day of following month.



DELAWARE RIVER BASIN

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DIVERSIONS FROM DELAWARE RIVER BASIN

- 01415200 Diversion from Pepacton Reservoir (see preceding pages) 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 Bureau of Water Resources Development and Department of Environmental Protection, City of New York.  
REVISED RECORDS, WDR NY-71-1: 1970. WDR NY-81-1: 1980.
- 014239000 Diversion from Cannonsville Reservoir (see preceding pages) 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 Bureau of Water Resources Development, City of New York.  
REVISED RECORDS, WDR NY-81-1: 1980.
- 01435800 Diversion from Neversink Reservoir (see preceding pages) 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 Bureau of Water Resources Development and Department of Environmental Protection, City of New York.  
REVISED RECORDS, WDR NY-82-1: 1976, 1977.

DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Month	01415200 Pepacton Reservoir	01423900 Cannonsville Reservoir	01435800 Neversink Reservoir
October.....	728	181	189
November.....	767	299	375
December.....	637	9.53	241
CAL YR 1982	479	238	184
January.....	497	150	149
February.....	176	131	141
March.....	0	219	30.0
April.....	0	0.36	104
May.....	489	0.55	338
June.....	432	175	449
July.....	690	291	261
August.....	697	305	176
September.....	697	3.46	149
WTR YR 1983	487	147	217

## STREAMS TRIBUTARY TO LAKE ONTARIO

04250750 SANDY CREEK NEAR ADAMS, NY  
(National stream-quality accounting network station)

LOCATION.--Lat 43°48'48", long 76°04'30", Jefferson County, Hydrologic Unit 04140102, on left bank 250 ft upstream from highway bridge on Liberty Street, 0.2 mi downstream from tributary, 2.5 mi downstream from Adams, and 10.0 mi upstream from mouth. Water-quality sampling site at discharge station.

DRAINAGE AREA.--128 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 523.71 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are poor. Moderate diurnal fluctuation at low flow caused by mills above station.

AVERAGE DISCHARGE.--26 years, 273 ft<sup>3</sup>/s, 28.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft<sup>3</sup>/s Apr. 4, 1963, gage height, 11.01 ft, from rating curve extended above 5,500 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 1.5 ft<sup>3</sup>/s Sept. 17, 18, 1963, Aug. 19, 1964; minimum daily, 2.2 ft<sup>3</sup>/s Sept. 7, 11, 1960, Sept. 17, 1963, Aug. 16, Sept. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,320 ft<sup>3</sup>/s Oct. 15, gage height, 6.63 ft, no other peaks above base of 3,000 ft<sup>3</sup>/s; minimum, 8.4 ft<sup>3</sup>/s Sept. 21, gage height, 0.90 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	118	729	327	164	194	229	1150	267	21	14	33
2	139	446	524	301	251	211	232	790	184	20	20	19
3	115	349	439	262	1700	224	321	720	137	19	21	15
4	96	1660	532	150	1180	202	378	709	145	18	15	12
5	89	2060	475	170	450	239	316	623	166	19	13	11
6	75	1130	597	190	340	297	256	483	164	18	13	10
7	74	800	442	180	270	628	244	379	248	16	16	17
8	187	685	338	160	220	554	324	567	164	15	14	20
9	145	517	285	144	180	653	259	737	120	16	20	17
10	100	394	170	179	160	458	367	500	96	15	20	21
11	84	343	160	679	160	406	505	419	87	14	15	25
12	72	565	150	567	150	335	436	351	74	13	72	19
13	72	1610	160	250	150	285	354	299	64	13	84	15
14	72	732	190	230	150	290	271	259	57	13	38	12
15	1580	536	231	210	150	278	620	275	51	13	24	11
16	952	428	1570	180	160	244	1270	429	47	21	18	11
17	676	371	826	160	160	222	929	303	43	15	15	10
18	419	355	350	150	170	206	801	241	40	13	43	11
19	307	335	341	140	180	259	584	206	38	12	67	10
20	248	302	300	130	190	367	534	263	35	11	36	9.2
21	429	345	271	150	200	319	514	223	31	11	22	14
22	295	594	235	170	230	475	552	184	27	12	20	64
23	227	573	235	190	532	250	869	184	25	11	25	399
24	190	837	442	230	492	210	1330	161	23	11	19	346
25	161	649	807	280	308	180	1690	142	23	12	15	137
26	153	479	1250	240	190	170	1680	234	23	15	13	79
27	139	397	674	200	180	202	1200	193	28	12	13	53
28	127	331	657	170	184	331	832	152	34	10	13	43
29	118	798	589	150	---	388	623	127	28	10	11	34
30	108	1130	437	147	---	250	562	210	23	10	12	26
31	99	---	356	165	---	230	---	311	---	11	32	---
TOTAL	7709	19869	14762	6851	8851	9557	19082	11824	2492	440	773	1503.2
MEAN	249	662	476	221	316	308	636	381	83.1	14.2	24.9	50.1
MAX	1580	2060	1570	679	1700	653	1690	1150	267	21	84	399
MIN	72	118	150	130	150	170	229	127	23	10	11	9.2
CFSM	1.95	5.17	3.72	1.73	2.47	2.41	4.97	2.98	.65	.11	.20	.39
IN.	2.24	5.77	4.29	1.99	2.57	2.78	5.55	3.44	.72	.13	.22	.44

CAL YR 1982 TOTAL 110514.0 MEAN 303 MAX 2880 MIN 12 CFSM 2.37 IN 32.12  
WTR YR 1983 TOTAL 103713.2 MEAN 284 MAX 2060 MIN 9.2 CFSM 2.22 IN 30.14

## STREAMS TRIBUTARY TO LAKE ONTARIO

04250750 SANDY CREEK NEAR ADAMS, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1978 to current year.

CHEMICAL DATA: 1965, 1978 (c); 1979-80 (d), 1981-83 (c).

MINOR ELEMENTS DATA: 1978-79 (b), 1980 (c), 1981-83 (b).

ORGANIC DATA: OC--1978 (c), 1979-80 (d), 1981 (c).

NUTRIENT DATA: 1978 (c), 1979-80 (d), 1981-83 (c).

BIOLOGICAL DATA:

Bacteria--1978 (c), 1979-80 (d), 1981-83 (c).

Phytoplankton--1978-80 (c), 1981 (b).

Periphyton--1978-80 (b).

SEDIMENT DATA: 1978 (c), 1979-80 (d), 1981-83 (c).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Once daily January 1978 to September 1980. Recorder July 1980 to current year.

WATER TEMPERATURES: Once daily January 1978 to September 1980. Recorder July 1980 to current year.

INSTRUMENTATION.--Specific conductance and water temperature digital recorder installed July 29, 1980 at gaging station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 563 micromhos Jan. 21, 1983; minimum recorded, 86 micromhos Oct. 15, 1982.

WATER TEMPERATURES: Maximum (1979-80, 83 water years), 33.0°C July 24, 1979; minimum, freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 563 micromhos Jan. 21; minimum recorded, 86 micromhos Oct. 15.

WATER TEMPERATURES: Maximum, 30.0°C July 18; minimum, freezing point on many days during winter period.

REMARKS: Once-daily specific conductance and water temperature measurements were made at site 2 mi downstream.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 25...	1130	169	323	7.8	4.5	1.2	760	13.0	101	350
JAN 10...	1300	172	334	8.2	.5	1.4	755	14.6	102	140
MAR 02...	0945	206	279	8.2	1.5	1.4	745	13.4	98	620
APR 12...	1400	450	225	8.5	6.0	1.7	755	13.0	105	100
JUL 06...	1400	18	365	8.7	21.5	1.4	755	9.7	111	490
AUG 24...	1115	20	330	8.4	19.0	<1.0	765	10.7	115	400

DATE	100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS BONATE (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 25...	57	160	18	59	3.8	4.2	1.2	145	16	6.8	
JAN 10...	170	170	15	60	4.1	5.1	1.1	152	17	7.6	
MAR 02...	1100	140	10	50	3.6	4.4	1.2	130	17	8.6	
APR 12...	200	110	7	41	3.0	4.1	1.1	108	13	5.9	
JUL 06...	650	170	12	61	4.9	11	2.0	161	19	18	
AUG 24...	210	160	33	56	5.0	9.2	1.7	128	27	12	

## STREAMS TRIBUTARY TO LAKE ONTARIO

04250750 SANDY CREEK NEAR ADAMS, NY--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 25...	.10	3.8	201	182	.61	.020	.30	.030	.020	<.010
JAN 10...	<.10	4.4	197	191	1.4	.010	<.10	.010	<.010	.030
MAR 02...	.10	3.4	172	167	1.1	<.010	.10	.030	.030	.040
APR 12...	<.10	2.5	143	136	.49	<.010	.30	.050	.040	.030
JUL 06...	.10	5.1	241	218	.88	<.010	.50	.200	.210	.180
AUG 24...	.10	1.9	203	190	.32	.010	.30	.140	.110	.120

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 25...	<10	<1	30	<1	<1	<1	<3	3	22	<1
MAR 02...	20	1	23	<1	<1	3	<3	2	15	5
APR 12...	10	1	44	<1	<1	<1	<3	1	18	1
AUG 24...	<10	1	44	<1	<1	<1	<3	2	16	1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 25...	<4	6	.2	<10	3	<1	<1	110	<6.0	<4
MAR 02...	<4	5	<.1	<10	1	<1	<1	97	<6.0	5
APR 12...	<4	4	<.1	<10	2	<1	1	82	<6.0	9
AUG 24...	<4	7	.1	<10	1	<1	<1	130	<6.0	12

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)
JUL 06...	1335	15	1.00	365	8.8	22.5
06...	1336	20	1.18	370	8.8	22.5
06...	1337	25	1.11	367	8.9	22.5
06...	1338	30	1.05	365	8.9	22.5
06...	1339	35	.78	365	8.9	22.5

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 25...	1130	169	1	.46	APR 12...	1400	450	6	7.3
JAN 10...	1300	172	2	.93	JUL 06...	1400	18	2	.10
MAR 02...	0945	206	2	1.1	AUG 24...	1115	20	1	.05



## STREAMS TRIBUTARY TO LAKE ONTARIO

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04250750 SANDY CREEK NEAR ADAMS, NY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	321	300	312							---	---	---
2	332	309	320							---	---	---
3	329	308	319							---	---	---
4	327	314	321							---	---	---
5	343	323	332							---	---	---
6	337	293	317							---	---	---
7	321	303	315							---	---	---
8	318	188	250							---	---	---
9	252	197	228							---	---	---
10	270	250	262							---	---	---
11	288	269	279							268	151	191
12	290	276	285							212	165	192
13	290	258	279							257	202	221
14	293	277	288							294	179	250
15	289	86	156							282	176	212
16	221	130	193							299	214	238
17	242	212	223							290	248	269
18	273	241	262							365	290	317
19	278	259	268							536	327	373
20	272	256	268							416	375	390
21	270	193	217							563	349	381
22	286	223	255							493	328	355
23	298	275	288							349	298	320
24	320	273	293							296	248	273
25	---	---	---							275	242	256
26	---	---	---							523	219	319
27	---	---	---							399	284	313
28	---	---	---							533	285	349
29	---	---	---							469	290	344
30	---	---	---							314	295	305
31	---	---	---							492	285	304
MONTH	343	86	272							563	151	294
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	328	280	288	297	279	292	267	252	259	218	138	165
2	301	175	274	280	278	279	252	242	247	223	202	196
3	173	128	147	296	288	291	243	201	220	237	216	206
4	201	147	176	308	289	297	202	192	196	238	220	209
5	215	181	196	292	271	281	222	201	210	241	223	215
6	226	211	220	268	239	258	236	222	228	257	242	231
7	231	226	229	236	185	200	236	225	233	270	258	243
8	274	232	244	229	188	205	223	203	210	273	178	215
9	298	238	266	233	211	222	230	210	220	236	183	189
10	325	300	316	252	233	244	232	195	219	248	237	244
11	327	299	316	255	245	250	227	194	212	256	249	253
12	326	302	316	271	254	264	229	222	225	264	257	238
13	329	291	317	285	266	274	242	223	228	273	265	244
14	317	284	297	277	262	270	252	243	241	280	270	251
15	308	295	302	273	269	270	254	172	213	282	263	250
16	299	283	293	282	273	276	186	153	162	262	234	219
17	289	274	284	---	---	---	220	183	197	269	255	237
18	279	249	272	---	---	---	232	184	204	279	269	247
19	291	249	269	---	---	---	243	231	227	283	276	254
20	300	261	281	---	---	---	254	231	230	281	255	239
21	280	263	276	---	---	---	---	---	---	271	256	237
22	276	255	264	---	---	---	250	214	231	279	269	246
23	266	205	230	---	---	---	231	174	197	281	270	248
24	246	219	235	---	---	---	210	156	177	288	275	286
25	270	244	256	---	---	---	211	157	177	293	283	288
26	313	250	277	---	---	---	208	173	180	291	253	269
27	331	272	298	277	257	269	220	177	188	283	264	273
28	308	287	301	255	227	238	221	203	197	293	279	284
29	---	---	---	239	218	230	237	222	213	296	292	294
30	---	---	---	275	238	255	241	208	221	298	238	273
31	---	---	---	279	243	263	---	---	---	247	230	237
MONTH	331	128	266	308	185	258	267	153	212	298	138	241



## STREAMS TRIBUTARY TO LAKE ONTARIO

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04250750 SANDY CREEK NEAR ADAMS, NY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	4.0	.5	2.5	7.0	2.0	4.5	13.0	11.0	12.0
2	1.0	.0	.5	5.0	1.5	3.0	8.5	2.0	5.5	17.5	12.0	14.5
3	1.0	.5	.5	4.0	2.0	3.0	9.0	5.0	6.5	15.5	12.0	13.5
4	.5	.0	.5	3.5	2.0	3.0	7.5	5.0	5.5	12.0	9.0	10.5
5	.5	.5	.5	6.0	2.0	4.0	5.0	4.5	5.0	11.5	8.0	9.5
6	.5	.0	.5	7.0	2.5	5.0	10.0	4.5	7.0	14.0	8.5	11.5
7	.0	.0	.0	6.0	3.5	5.0	9.5	7.0	8.5	15.0	10.5	13.0
8	.0	.0	.0	4.5	3.0	3.5	10.5	8.5	9.5	14.0	9.0	12.0
9	.5	.0	.5	4.0	3.5	3.5	11.0	5.5	8.5	9.0	7.0	8.0
10	1.0	.5	.5	4.5	3.5	4.0	10.5	7.0	8.0	8.5	6.5	7.0
11	1.0	.5	.5	4.0	2.0	3.0	7.0	6.0	6.0	11.0	6.5	9.0
12	.5	.0	.5	2.0	1.0	1.5	6.5	5.5	6.0	13.5	7.5	10.5
13	.5	.0	.0	5.5	1.0	3.0	10.5	3.5	7.0	17.0	10.0	13.0
14	.0	.0	.0	5.0	1.5	3.5	10.0	6.5	8.5	18.5	12.0	15.5
15	.0	.0	.0	4.5	4.0	4.0	9.0	6.5	7.5	17.5	12.0	14.5
16	.5	.0	.0	8.0	3.0	5.0	6.5	3.5	4.5	12.0	10.0	11.0
17	.0	.0	.0	---	---	---	9.0	2.5	5.5	13.0	7.0	10.0
18	.5	.0	.0	---	---	---	7.0	4.5	5.5	14.5	8.0	11.5
19	1.0	.0	.5	---	---	---	5.0	.0	3.0	13.0	10.5	11.5
20	2.0	.0	1.0	---	---	---	2.5	.0	1.0	16.0	11.0	13.5
21	2.5	.5	1.5	---	---	---	1.5	.5	1.0	17.0	13.0	15.0
22	3.0	.0	1.5	---	---	---	8.0	1.5	4.5	16.0	14.0	15.0
23	2.5	.5	1.5	---	---	---	9.0	3.0	5.5	18.5	14.5	16.5
24	1.5	.5	1.0	---	---	---	5.0	3.5	4.5	20.0	14.5	15.5
25	1.5	.0	.5	---	---	---	3.5	2.5	3.0	20.0	15.5	18.0
26	1.0	.0	.5	---	---	---	10.0	3.0	6.0	19.5	16.0	18.0
27	.5	.0	.0	3.0	1.0	2.0	10.5	5.5	8.0	17.5	14.0	15.0
28	3.0	.0	1.5	3.5	2.0	2.5	12.0	8.0	10.5	18.0	12.0	15.0
29	---	---	---	4.5	1.0	3.0	12.5	10.5	11.5	18.0	16.0	16.5
30	---	---	---	5.0	.5	2.5	12.0	10.5	11.5	23.5	16.5	19.5
31	---	---	---	5.5	1.0	3.5	---	---	---	21.5	18.0	19.5
MONTH	3.0	.0	.5	8.0	.5	3.5	12.5	.0	6.5	23.5	6.5	13.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.5	16.0	18.0	24.0	18.5	21.5	25.0	21.0	22.5	24.5	19.5	21.5
2	21.5	16.0	18.0	26.5	20.5	23.0	24.5	20.5	22.5	23.5	18.5	21.0
3	22.0	18.0	20.0	27.5	21.0	24.0	27.0	19.0	23.0	23.0	18.0	20.5
4	21.5	18.5	19.5	28.0	23.5	25.5	25.0	22.0	24.0	24.0	20.0	21.5
5	21.0	17.0	19.0	25.5	22.0	24.0	28.5	21.5	24.5	27.0	20.5	23.0
6	21.0	16.5	18.5	22.0	19.5	20.5	29.0	23.5	26.0	28.5	22.5	25.0
7	20.5	15.5	18.0	22.0	16.5	19.0	29.5	22.5	25.5	25.0	22.0	25.5
8	20.5	15.5	18.0	22.0	18.0	19.5	28.5	23.0	25.0	24.0	19.5	21.5
9	21.0	16.0	19.0	24.0	18.5	20.5	26.0	22.0	24.0	23.5	19.0	21.0
10	21.5	18.0	20.0	24.0	17.0	20.0	24.0	18.5	21.5	24.5	20.5	22.5
11	24.0	19.5	21.5	21.5	17.5	19.5	22.5	17.5	19.0	24.5	21.0	22.5
12	26.0	21.0	23.5	25.0	19.0	21.5	19.0	17.0	18.0	21.5	17.5	20.0
13	27.5	22.5	24.5	26.5	20.0	22.5	20.0	15.0	17.5	20.5	16.5	18.5
14	28.5	23.5	26.0	27.0	20.0	23.0	21.5	15.5	19.5	20.0	14.0	17.0
15	26.5	21.0	24.0	25.5	21.5	23.5	22.0	17.5	19.5	20.0	14.5	17.0
16	26.5	20.5	23.0	27.0	20.5	23.5	24.0	17.5	21.0	17.5	12.0	16.0
17	26.0	21.0	23.0	27.0	20.5	23.5	24.5	19.5	22.0	17.5	14.0	15.5
18	26.0	20.0	22.5	30.0	22.5	25.5	24.0	20.5	22.5	17.0	14.5	16.0
19	26.0	18.5	22.0	28.0	22.5	25.0	24.5	20.0	22.5	21.0	16.0	18.5
20	25.0	19.5	22.0	28.0	20.5	24.5	28.0	21.0	24.0	24.5	18.0	20.5
21	26.5	19.0	22.5	26.0	20.0	23.0	25.5	20.0	23.0	20.5	17.0	19.0
22	27.0	20.0	23.0	25.0	18.0	21.0	22.5	18.5	20.5	17.0	13.0	15.0
23	26.5	20.0	23.0	24.5	18.5	21.0	25.0	18.0	21.0	13.0	10.0	11.0
24	26.5	20.5	23.5	26.0	19.0	22.0	25.0	17.5	21.5	12.0	9.0	10.5
25	22.5	18.0	20.5	28.0	19.0	23.0	26.5	19.5	22.5	12.5	9.5	11.0
26	21.0	16.5	18.5	25.5	19.5	23.0	26.5	21.0	23.5	14.0	12.0	13.0
27	20.5	18.0	19.5	26.5	19.5	22.5	27.0	21.5	23.5	16.0	12.5	14.0
28	20.5	16.0	18.5	27.5	20.5	23.5	25.0	20.0	23.0	17.0	12.0	14.5
29	23.5	15.5	19.0	24.5	21.5	23.0	29.0	22.0	25.0	16.0	11.5	14.0
30	25.0	17.5	21.0	28.0	21.0	24.0	24.5	21.0	23.5	15.5	11.0	13.5
31	---	---	---	24.5	21.0	23.0	23.0	20.0	21.5	---	---	---
MONTH	28.5	15.5	21.0	30.0	16.5	22.5	29.5	15.0	22.5	28.5	9.0	18.0

## STREAMS TRIBUTARY TO LAKE ONTARIO

04252500 BLACK RIVER NEAR BOONVILLE, NY

LOCATION.--Lat 43°30'42", long 75°18'25", Oneida County, Hydrologic Unit 04150101, on left bank at downstream side of bridge on Moose River Road, 0.8 mi upstream from Sugar River, and 2 mi northeast of Boonville.

DRAINAGE AREA.--304 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1911 to current year.

REVISED RECORDS.--WSP 784: 1934. WSP 1084: 1912(M), 1913, 1917-1919(M), 1922(M), 1924(M), 1926(M), 1928(M), 1930(M), 1933(M). WSP 1307: 1914(M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 935.50 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1933, nonrecording gage at same site and datum.

REMARKS.--Records good except those above 1,200 ft<sup>3</sup>/s and those for winter periods, which are fair. Occasional regulation by several headwater reservoirs. Forestport feeder diverts water from State Pond at Forestport 9 mi upstream. That portion of diverted water which does not pass Black River Canal (flowing south), returns to Black River below station through Mill Creek sluiceway. Slight diurnal fluctuation at medium and low flow caused by mill above station.

AVERAGE DISCHARGE.--72 years, 700 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 ft<sup>3</sup>/s Apr. 18, 1982, gage height, 11.31 ft; maximum gage height, 13.10 ft Feb. 21, 1981 (ice jam); minimum observed discharge, about 5 ft<sup>3</sup>/s Aug. 26, 1918, gage height, 2.40 ft; minimum daily, 7 ft<sup>3</sup>/s Aug. 26, 1918.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,660 ft<sup>3</sup>/s May 2, gage height, 8.12 ft, no peak above base of 3,900 ft<sup>3</sup>/s; minimum discharge, 121 ft<sup>3</sup>/s Sept. 21, gage height, 3.68 ft; minimum daily, 135 ft<sup>3</sup>/s Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	261	1080	862	500	340	511	3370	1430	261	729	192
2	271	344	945	660	500	367	524	3590	1160	275	1110	167
3	257	398	824	520	780	398	652	3510	874	271	806	147
4	234	422	745	420	1800	402	932	3140	788	250	464	137
5	230	1050	724	400	1300	443	880	2450	818	250	355	135
6	227	1170	887	410	1000	489	769	1780	843	230	318	149
7	202	880	984	480	800	900	739	1350	1140	221	268	157
8	464	676	824	440	640	1350	880	1280	984	186	208	145
9	781	578	661	360	580	1390	984	1920	690	189	186	140
10	559	511	485	350	540	1360	1020	1690	573	180	169	227
11	398	476	430	745	500	1350	1600	1370	506	167	174	244
12	318	472	390	1100	490	1230	1490	1240	464	172	336	237
13	289	812	370	600	480	951	1270	1070	422	154	398	186
14	282	912	370	510	460	788	1090	958	386	147	285	159
15	333	657	443	480	450	751	1130	912	402	154	221	157
16	472	524	1090	450	450	700	2940	1050	418	172	189	152
17	564	443	1890	400	440	705	3160	1010	414	147	167	159
18	511	402	1210	350	430	729	2370	880	528	140	237	164
19	443	435	951	330	430	880	1700	800	485	140	398	162
20	406	506	849	320	426	1180	1350	964	375	145	292	180
21	506	546	769	320	414	1250	1160	1160	289	145	230	162
22	596	843	685	330	422	1380	1070	1100	250	172	250	705
23	506	1040	619	540	422	1160	1190	1080	264	164	498	587
24	431	1130	666	660	410	880	1600	1000	244	157	410	418
25	378	1180	945	820	394	719	2990	900	230	169	271	318
26	336	984	1640	700	371	647	3130	800	227	172	211	261
27	296	788	1610	620	333	638	2570	769	264	152	183	230
28	254	671	1290	560	340	642	2190	676	318	142	208	230
29	254	734	1320	540	---	695	2210	619	348	142	177	198
30	244	1040	1100	500	---	559	2530	806	296	180	169	180
31	237	---	680	500	---	520	---	1180	---	230	208	---
TOTAL	11589	20885	27476	16277	16102	25793	46631	44424	16430	5676	10125	6685
MEAN	374	696	886	525	575	832	1554	1433	548	183	327	223
MAX	781	1180	1890	1100	1800	1390	3160	3590	1430	275	1110	705
MIN	202	261	370	320	333	340	511	619	227	140	167	135
CAL YR 1982	TOTAL	272069	MEAN	745	MAX	10300	MIN	140				
WTR YR 1983	TOTAL	248093	MEAN	680	MAX	3590	MIN	135				



## STREAMS TRIBUTARY TO LAKE ONTARIO

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04256000 INDEPENDENCE RIVER AT DONNATTSBURG, NY

LOCATION.--Lat 43°44'50", long 75°20'05", Lewis County, Hydrologic Unit 04150101, on right bank at downstream side of highway bridge on Donnattsburg Road at Donnattsburg, 1.2 mi downstream from Chase Lake Outlet, 4.2 mi northeast of Glenfield, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--88.7 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1942 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 972.84 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 16, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--41 years, 192 ft<sup>3</sup>/s, 29.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,530 ft<sup>3</sup>/s Apr. 18, 1982, gage height, 9.73 ft; minimum observed, 18 ft<sup>3</sup>/s Sept. 17, 1948, Aug. 4, 5, 1949, gage height, 2.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,190 ft<sup>3</sup>/s Apr. 16, gage height, 6.01 ft, no peak above base of 1,200 ft<sup>3</sup>/s; minimum discharge, 32 ft<sup>3</sup>/s July 23, 24, 28, 29; minimum gage height, 3.11 ft July 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	99	506	160	105	78	136	714	339	57	97	240
2	155	153	354	130	120	83	134	678	303	53	198	129
3	144	214	267	110	200	89	150	750	228	51	167	85
4	136	228	237	100	430	89	200	799	198	49	95	66
5	114	638	246	110	350	87	208	579	211	56	69	56
6	101	678	274	120	280	101	190	421	206	56	59	51
7	93	393	310	130	240	198	177	324	243	69	53	51
8	164	290	252	131	210	434	182	280	237	59	49	47
9	274	240	170	225	180	451	185	506	190	52	51	43
10	214	206	160	270	160	397	185	506	153	48	46	43
11	164	195	150	214	140	300	361	434	129	46	46	44
12	134	175	140	401	130	250	389	369	110	43	192	43
13	119	246	130	303	120	220	343	310	97	42	297	43
14	114	287	150	222	110	200	264	255	87	40	167	41
15	158	231	155	160	110	190	261	222	80	39	108	39
16	456	187	280	140	105	180	822	234	74	39	74	37
17	443	167	638	130	105	177	951	222	192	38	60	38
18	317	150	397	120	100	182	600	192	158	37	83	39
19	231	139	270	120	100	222	421	175	153	37	119	41
20	190	134	214	130	96	307	335	170	117	36	93	41
21	198	139	182	150	94	303	297	180	87	35	69	51
22	200	219	164	250	100	280	261	161	74	35	63	190
23	177	287	153	210	110	250	297	153	66	32	68	222
24	153	332	155	180	120	200	389	153	60	32	68	158
25	142	373	237	170	115	170	799	147	57	35	57	126
26	124	290	456	160	100	150	783	161	56	34	52	95
27	112	231	497	150	90	140	756	219	73	32	47	76
28	105	190	350	140	80	144	827	198	105	32	44	66
29	101	200	280	130	---	164	927	170	83	34	42	60
30	95	417	230	120	---	150	783	177	66	42	41	55
31	91	---	190	110	---	142	---	290	---	53	175	---
TOTAL	5396	7728	8194	5196	4200	6328	12613	10149	4232	1343	2849	2316
MEAN	174	258	264	168	150	204	420	327	141	43.3	91.9	77.2
MAX	456	678	638	401	430	451	951	799	339	69	297	240
MIN	91	99	130	100	80	78	134	147	56	32	41	37
CFSM	1.96	2.91	2.98	1.89	1.69	2.30	4.74	3.69	1.59	.49	1.04	.87
IN.	2.26	3.24	3.44	2.18	1.76	2.65	5.29	4.26	1.77	.56	1.19	.97
CAL YR 1982	TOTAL	74471	MEAN	204	MAX	3960	MIN	36	CFSM	2.30	IN	31.23
WTR YR 1983	TOTAL	70544	MEAN	193	MAX	951	MIN	32	CFSM	2.18	IN	29.59

## STREAMS TRIBUTARY TO LAKE ONTARIO

## 04256500 STILLWATER RESERVOIR NEAR BEAVER RIVER, NY

LOCATION.--Lat 43°53'50", long 75°03'05", Herkimer County, Hydrologic Unit 04150101, in gatehouse at Stillwater Dam on Beaver River, 2.5 mi upstream from Moshier Creek, and 7.5 mi west of Beaver River Post Office.

DRAINAGE AREA.--172 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1908 to current year. Prior to February 1925, month end contents only, published in WSP 1307. February 1925 to September 1937, published in WSP 824.

GAGE.--Nonrecording gage read once daily and prior to reservoir gate changes. Datum of gage is National Geodetic Vertical Datum, adjustment of 1912.

REMARKS.--Reservoir originally formed about 1885; enlarged at various times and in 1924 enlarged to a usable capacity of 4,623 mil ft<sup>3</sup> between elevations 1,650.3 ft and 1,679.3 ft (top of 24-inch flashboards in place throughout year). Elevation of gate sill of lowest outlet, 1,642.3 ft. Capacity below elevation 1,650.3 ft, 90 mil ft<sup>3</sup>, is included in records presented herein, but is not ordinarily available for release. Reservoir is used to regulate flow of Beaver and Black Rivers for flood control, power development, and general public welfare.

COOPERATION.--Records furnished by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed elevation, 1,680.08 ft May 20, 1969, contents, 4,939 mil ft<sup>3</sup>; minimum observed since first filling, 1,644.80 ft Mar. 25-27, 1949, contents, 8 mil ft<sup>3</sup>.

EXTREMES FOR CURRENT YEAR.--Maximum observed elevation, 1,679.44 ft May 4, contents, 4,754 mil ft<sup>3</sup>; minimum observed, 1,666.37 ft Sept. 30, contents, 1,748 mil ft<sup>3</sup>.

Capacity table, current year (elevation, in feet, and contents, in millions of cubic feet)

1,658.0	604	1,670.0	2,431
1,660.0	821	1,675.0	3,556
1,665.0	1,518	1,680.0	4,916

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670.34	1671.00	1673.83	1675.89	1673.76	1672.46	1674.64	1679.29	1678.36	1676.74	1672.46	1669.62
2	1670.35	1670.95	1673.95	1675.89	1673.67	1672.42	1674.69	1679.26	1678.34	1676.68	1672.38	1669.44
3	1670.34	1670.89	1674.04	1675.88	1673.68	1672.35	1674.79	1679.34	1678.30	1676.63	1672.32	1669.24
4	1670.32	1670.90	1674.13	1675.87	1673.93	1672.32	1674.88	1679.44	1678.29	1676.57	1672.20	1669.07
5	1670.28	1671.24	1674.24	1675.80	1674.16	1672.27	1674.93	1679.43	1678.27	1676.53	1672.08	1668.86
6	1670.24	1671.58	1674.33	1675.72	1674.30	1672.22	1674.97	1679.36	1678.24	1676.46	1671.96	1668.67
7	1670.20	1671.78	1674.43	1675.64	1674.43	1672.24	1675.02	1679.26	1678.23	1676.37	1671.82	1668.43
8	1670.26	1671.89	1674.52	1675.58	1674.41	1672.33	1675.08	1679.24	1678.18	1676.25	1671.68	1668.28
9	1670.30	1672.00	1674.57	1675.50	1674.33	1672.52	1675.15	1679.34	1678.12	1676.12	1671.52	1668.08
10	1670.38	1672.08	1674.59	1675.41	1674.23	1672.70	1675.22	1679.38	1678.06	1676.00	1671.32	1667.90
11	1670.36	1672.13	1674.61	1675.39	1674.14	1672.93	1675.42	1679.40	1677.97	1675.86	1671.09	1667.77
12	1670.30	1672.18	1674.63	1675.43	1674.03	1673.04	1675.60	1679.39	1677.90	1675.72	1671.34	1667.68
13	1670.28	1672.33	1674.63	1675.42	1673.94	1673.17	1675.73	1679.36	1677.79	1675.58	1671.57	1667.56
14	1670.27	1672.45	1674.63	1675.35	1673.82	1673.23	1675.85	1679.30	1677.75	1675.44	1671.70	1667.48
15	1670.33	1672.53	1674.61	1675.28	1673.69	1673.28	1675.92	1679.23	1677.72	1675.33	1671.79	1667.34
16	1670.72	1672.60	1674.68	1675.22	1673.55	1673.33	1676.29	1679.16	1677.63	1675.19	1671.66	1667.22
17	1670.93	1672.63	1674.91	1675.15	1673.39	1673.38	1676.83	1679.07	1677.57	1675.06	1671.49	1667.08
18	1671.06	1672.68	1675.04	1675.06	1673.27	1673.43	1677.10	1679.03	1677.57	1674.93	1671.41	1666.95
19	1671.20	1672.69	1675.09	1674.96	1673.15	1673.57	1677.29	1678.98	1677.48	1674.77	1671.27	1666.83
20	1671.32	1672.64	1675.15	1674.86	1673.02	1673.75	1677.53	1678.94	1677.39	1674.62	1671.09	1666.73
21	1671.38	1672.58	1675.23	1674.76	1672.88	1673.92	1677.70	1678.90	1677.29	1674.36	1670.94	1666.59
22	1671.44	1672.64	1675.35	1674.64	1672.76	1674.03	1677.88	1678.84	1677.18	1674.23	1670.77	1666.68
23	1671.43	1672.77	1675.34	1674.54	1672.68	1674.13	1677.94	1678.79	1677.08	1674.04	1670.71	1666.71
24	1671.43	1672.90	1675.33	1674.49	1672.67	1674.18	1678.03	1678.73	1677.02	1673.84	1670.63	1666.76
25	1671.41	1673.08	1675.35	1674.44	1672.63	1674.25	1678.26	1678.65	1676.93	1673.68	1670.53	1666.80
26	1671.35	1673.19	1675.47	1674.38	1672.58	1674.31	1678.46	1678.59	1676.88	1673.48	1670.40	1666.81
27	1671.33	1673.28	1675.64	1674.27	1672.53	1674.38	1678.63	1678.56	1676.90	1673.28	1670.32	1666.70
28	1671.31	1673.36	1675.74	1674.18	1672.48	1674.48	1678.84	1678.48	1676.93	1673.08	1670.24	1666.61
29	1671.28	1673.40	1675.79	1674.07	---	1674.52	1679.10	1678.39	1676.88	1672.88	1670.12	1666.48
30	1671.25	1673.58	1675.88	1673.96	---	1674.54	1679.27	1678.35	1676.83	1672.74	1669.93	1666.37
31	1671.00	---	1675.93	1673.87	---	1674.57	---	1678.37	---	1672.54	1669.81	---
MEAN	1670.79	1672.33	1674.89	1675.06	1673.50	1673.36	1676.57	1679.03	1677.64	1675.00	1671.24	1667.56
MAX	1671.44	1673.58	1675.93	1675.89	1674.43	1674.57	1679.27	1679.44	1678.36	1676.74	1672.46	1669.62
MIN	1670.20	1670.89	1673.83	1673.87	1672.48	1672.22	1674.64	1678.35	1676.83	1672.54	1669.81	1666.37
#	2639	3242	3785	3271	2959	3458	4707	4444	4012	2966	2374	1735
**	+51.9	+233	+203	-192	-129	+186	+482	-98.2	-167	-391	-221	-247
CAL YR 1982	MEAN	1671.91	MAX	1678.05	MIN	1660.79	**	+13.8				
WTR YR 1983	MEAN	1673.92	MAX	1679.44	MIN	1666.37	**	-24.3				

# Contents, in millions of cubic feet, at 2400 hours on last day of month by interpolation.

\*\* Change in contents, equivalent in cubic feet per second.

## STREAMS TRIBUTARY TO LAKE ONTARIO

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04257000 BEAVER RIVER BELOW STILLWATER DAM, NEAR BEAVER RIVER, NY

LOCATION.--Lat 43°53'56", long 75°03'08", Herkimer County, Hydrologic Unit 04150101, in gatehouse at Stillwater Dam, 2.5 mi upstream from Moshier Creek, and 7.5 mi west of Beaver River Post Office.

DRAINAGE AREA.--171 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1908 to current year. Published as "at State dam, near Beaver River" prior to June 1924.

REVISED RECORDS.--WDR NY-73-1: 1971. WDR NY-82-1: Drainage area.

GAGE.--Nonrecording gage read once daily and after reservoir gate changes. Datum of gage is National Geodetic Vertical Datum, adjustment of 1912. Prior to June 1, 1924, nonrecording gage at present site and datum. June 1, 1924 to Nov. 14, 1929, nonrecording gage at site 1,000 ft downstream at same datum.

REMARKS.--Records poor. Flow regulated by Stillwater Reservoir (see station 04256500). Discharge determined from ratings for gates and spillway of Stillwater Dam applied to log of reservoir elevation and gate operation.

COOPERATION.--Records furnished by Board of Hudson River-Black River Regulating District.

AVERAGE DISCHARGE.--75 years, 381 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 3,700 ft<sup>3</sup>/s May 3, 1926; minimum, practically no flow at times when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,610 ft<sup>3</sup>/s Apr. 30-May 1; minimum daily, 48 ft<sup>3</sup>/s Sept. 23-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	360	600	318	423	589	307	55	1610	554	307	560	646
2	360	599	319	423	588	307	55	1480	520	307	455	643
3	361	543	320	423	421	307	55	1330	520	307	455	641
4	360	303	321	423	54	307	158	1560	519	307	455	639
5	360	305	321	572	55	307	209	1480	519	307	454	637
6	360	307	322	607	55	307	209	1350	519	368	453	634
7	360	309	322	607	439	306	210	1090	518	518	452	631
8	340	309	323	606	631	201	210	985	517	517	591	629
9	411	310	323	606	631	53	210	984	516	516	659	591
10	411	311	323	605	630	53	210	996	515	516	656	413
11	411	311	323	604	629	165	210	1000	513	514	653	413
12	343	311	324	604	629	226	211	1000	511	512	265	412
13	308	312	324	604	627	226	211	997	457	512	52	319
14	308	312	407	603	625	226	211	984	316	510	52	329
15	309	313	452	603	624	227	211	993	443	509	451	328
16	310	313	453	602	623	227	212	997	506	508	660	327
17	312	313	454	602	621	227	214	775	506	508	658	326
18	141	313	456	601	620	171	216	643	505	508	656	325
19	52	426	457	600	619	54	141	640	503	558	655	324
20	52	506	260	599	618	54	58	637	502	659	653	323
21	257	506	55	598	616	155	60	636	500	557	651	323
22	360	389	348	597	525	206	304	635	499	655	521	277
23	360	314	421	597	308	207	426	634	373	653	277	48
24	360	314	421	596	308	207	429	632	310	651	447	48
25	422	315	421	595	308	166	544	630	309	649	446	48
26	397	316	421	595	308	55	634	628	308	646	341	48
27	315	317	422	594	308	55	639	626	308	644	444	285
28	314	317	423	594	307	157	615	625	308	642	444	403
29	314	317	423	593	---	181	1130	622	308	640	579	401
30	506	317	423	591	---	181	1610	620	308	638	649	400
31	601	---	423	590	---	157	---	621	---	636	647	---
TOTAL	10435	10748	11323	17857	13316	5985	9867	28440	13510	16279	15391	11811
MEAN	337	358	365	576	476	193	329	917	450	525	496	394
MAX	601	600	457	607	631	307	1610	1610	554	659	660	646
MIN	52	303	55	423	54	53	55	620	308	307	52	48
CAL YR 1982	TOTAL	159121	MEAN	436	MAX	729	MIN	52				
WTR YR 1983	TOTAL	164962	MEAN	452	MAX	1610	MIN	48				

## STREAMS TRIBUTARY TO LAKE ONTARIO

04258000 BEAVER RIVER AT CROGHAN, NY

LOCATION.--Lat 43°53'50", long 75°24'16", Lewis County, Hydrologic Unit 04150101, on left bank 1,200 ft upstream from Black Creek, and 0.5 mi west of Croghan.

DRAINAGE AREA.--291 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1930 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 806.20 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Stillwater Reservoir (see station 04256500). Between Stillwater Dam and this station, flow is further regulated by several powerplant ponds. Diurnal fluctuation at low and medium flow.

AVERAGE DISCHARGE.--53 years, 597 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,100 ft<sup>3</sup>/s May 21, 1969, gage height, 6.98 ft; minimum, 11 ft<sup>3</sup>/s Jan. 22, 29, Feb. 4, 1967, gage height, 0.63 ft; minimum daily, 22 ft<sup>3</sup>/s July 18, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,260 ft<sup>3</sup>/s May 4, gage height, 4.86 ft; minimum, 251 ft<sup>3</sup>/s July 2, gage height, 2.03 ft; minimum daily, 258 ft<sup>3</sup>/s July 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	589	492	597	862	773	279	349	1030	956	362	384	741
2	493	718	585	856	837	430	345	1760	922	268	679	799
3	378	682	799	716	1050	484	311	2020	895	258	679	710
4	506	804	817	710	1000	531	300	2100	935	279	685	655
5	445	1050	767	792	830	300	293	2090	962	349	608	649
6	417	955	869	691	655	286	289	1920	780	366	625	558
7	421	1050	552	569	614	444	345	1760	667	388	625	541
8	463	882	619	602	444	673	304	1600	637	602	716	591
9	418	875	643	619	531	915	293	1630	580	608	741	563
10	322	760	558	673	552	908	300	1220	780	379	520	536
11	278	520	574	976	673	728	349	1290	748	608	425	439
12	482	520	520	1000	510	631	499	1500	525	499	817	439
13	400	591	439	949	520	411	541	1480	608	547	673	349
14	604	531	420	843	673	464	499	1460	525	552	591	318
15	573	710	520	728	748	330	536	1320	661	691	667	393
16	795	504	691	685	902	375	875	1070	536	379	536	353
17	906	585	703	735	837	402	990	1090	439	322	716	311
18	816	569	703	735	773	515	679	1100	484	469	735	311
19	642	469	895	922	631	643	773	962	371	536	637	311
20	479	489	856	1000	558	435	754	888	358	541	585	322
21	724	741	805	614	574	691	935	888	494	464	547	397
22	709	754	754	397	679	843	969	882	469	474	353	474
23	618	805	631	602	574	817	1050	962	602	580	515	425
24	342	856	679	792	520	449	1080	956	625	520	649	315
25	462	875	722	888	479	625	1150	741	406	748	558	318
26	516	748	837	728	504	439	1120	792	307	541	597	435
27	406	716	888	875	326	282	1080	780	388	661	614	510
28	446	786	928	799	304	420	1050	625	484	643	307	388
29	512	735	908	649	---	489	1030	569	454	608	375	439
30	398	637	767	459	---	735	1030	748	494	614	637	430
31	318	---	869	661	---	531	---	908	---	499	504	---
TOTAL	15878	21409	21915	23127	18071	16505	20118	38141	18092	15355	18300	14020
MEAN	512	714	707	746	645	532	671	1230	603	495	590	467
MAX	906	1050	928	1000	1050	915	1150	2100	962	748	817	799
MIN	278	469	420	397	304	279	289	569	307	258	307	311
CAL YR 1982	TOTAL	232366	MEAN	637	MAX	2130	MIN	256				
WTR YR 1983	TOTAL	240931	MEAN	660	MAX	2100	MIN	258				



## STREAMS TRIBUTARY TO LAKE ONTARIO

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04260500 BLACK RIVER AT WATERTOWN, NY  
(National stream-quality accounting network station)  
(National pesticide network station)

LOCATION.--Lat 43°59'08", long 75°55'30", Jefferson County, Hydrologic Unit 04150101, on downstream side of right abutment of Vanduzee Street Bridge at Watertown, and 3.5 mi upstream from Philomel Creek. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,874 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1920 to current year.

REVISED RECORDS.--WDR NY-77-1: 1974. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 373.88 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 3, 1921, nonrecording gage, and from Sept. 3, 1921 to Mar. 15, 1977, recording gage at same site at datum 1.00 ft higher.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Stillwater Reservoir (see station 04256500), Fulton Chain of Lakes, and other reservoirs. Extensive diurnal fluctuation at low and medium flow caused by mills and powerplants in and above Watertown. During canal season, water is diverted out of basin through Forestport feeder and Black River Canal (flowing south).

AVERAGE DISCHARGE.--63 years, 4,017 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,600 ft<sup>3</sup>/s Mar. 16, 1977, gage height, 12.98 ft; minimum, 10 ft<sup>3</sup>/s Sept. 2, 1934, gage height, 0.81 ft present datum; minimum daily, 137 ft<sup>3</sup>/s Sept. 4, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known, about 39,700 ft<sup>3</sup>/s Apr. 23, 1869 (from New York State Museum Bulletin 85).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,300 ft<sup>3</sup>/s May 5, gage height, 8.81 ft, no other peaks above base of 17,000 ft<sup>3</sup>/s; minimum, 76 ft<sup>3</sup>/s Mar. 2, gage height, 1.13 ft; minimum daily, 880 ft<sup>3</sup>/s Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2260	2000	6010	5790	2700	1890	3190	11900	5270	1710	1370	1390
2	2780	2440	5810	5110	2800	2150	3000	12700	5590	1230	1890	2150
3	2120	3210	5590	4540	4300	2460	3140	15500	5590	1240	3480	1910
4	2050	4350	5290	3460	6560	2570	3860	17000	5150	1250	3800	1380
5	2070	7460	4970	2960	6640	2440	4180	16800	4840	1160	2930	1540
6	1570	7720	4880	3420	7120	2540	4160	15200	4640	1180	2380	1410
7	1720	7510	5360	3330	6610	3480	3900	13000	4430	1270	1990	1160
8	1890	7120	5150	3330	5790	5710	3780	11100	4600	1280	1750	1300
9	2700	6080	4750	3100	4880	6430	3860	10300	4560	1390	1840	1260
10	4100	5020	4080	2800	3940	6720	4200	9850	4000	1440	1650	1330
11	3670	4240	3120	3210	3300	6870	4950	9510	3300	1260	1350	1410
12	2760	3690	2780	5410	2930	6510	5790	9130	2960	1420	1490	1370
13	2630	4730	2680	5520	2930	5980	6300	8530	2760	1140	3590	1270
14	2340	5310	2540	5130	2670	5430	6250	7780	2340	1260	2930	1170
15	2710	5170	2590	4560	2620	4770	5690	7030	2260	1220	2350	1060
16	4330	4790	4060	3820	2670	4120	7890	6300	2050	1450	1890	1070
17	4900	4020	6720	3260	2850	3900	10000	5910	2060	1140	1620	1050
18	4990	3670	6460	2800	2760	3740	12200	5690	2540	964	1740	1030
19	4300	3370	6230	2400	2700	3900	12600	5220	2630	1050	2520	1030
20	3520	3150	6200	2800	2490	4690	11400	4690	2880	1130	2430	1130
21	3150	3260	5710	2500	2460	5170	9880	4690	2000	1040	2070	1120
22	3730	3820	4950	2100	2550	6030	8650	4750	1840	973	1680	1340
23	3520	4860	4180	2170	2760	6380	8190	4690	1550	1060	1350	2570
24	3280	5690	3980	2650	3020	5910	8310	4540	1680	1060	1850	3280
25	2750	6430	4770	3740	2930	5040	9680	4450	1660	1160	1890	2540
26	2670	6250	7280	4200	2480	4260	11000	4300	1390	1340	1630	1950
27	2280	5760	8190	4040	2310	3410	12600	4180	1440	1210	1490	1850
28	2250	5040	8250	3730	1980	3120	12800	4330	1440	1240	1410	1580
29	2190	4490	8100	3300	---	3540	12100	3780	1670	1180	1310	1410
30	1910	5640	7540	2860	---	3780	11600	3520	1710	1250	880	1430
31	1580	---	6740	2590	---	3610	---	4490	---	1250	1360	---
TOTAL	88720	146290	164960	110630	99750	136550	225150	250860	90830	37947	61910	45490
MEAN	2862	4876	5321	3569	3563	4405	7505	8092	3028	1224	1997	1516
MAX	4990	7720	8250	5790	7120	6870	12800	17000	5590	1710	3800	3280
MIN	1570	2000	2540	2100	1980	1890	3000	3520	1390	964	880	1030
CAL YR 1982	TOTAL	1541860	MEAN	4224	MAX	32500	MIN	1050				
WTR YR 1983	TOTAL	1459087	MEAN	3997	MAX	17000	MIN	880				

STREAMS TRIBUTARY TO LAKE ONTARIO  
04260500 BLACK RIVER AT WATERTOWN, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-60, 1962 to current year.

CHEMICAL DATA: 1956 (e), 1959 (a), 1960 (b), 1965 (a), 1966-81 (d), 1982-83 (c).

MINOR ELEMENTS DATA: 1970-71 (a), 1974-79 (b), 1980 (c), 1981-83 (b).

PESTICIDE DATA: 1975-79 (b), 1980-82 (a).

ORGANIC DATA: OC--1973 (c), 1974 (a), 1975 (c), 1976-77 (b), 1978-81 (d).

PCB--1978-79 (b), 1980-82 (a).

NUTRIENT DATA: 1968 (b), 1969-81 (d), 1982-83 (c).

BIOLOGICAL DATA:

Bacteria--1973-81 (d), 1982-83 (c).

Phytoplankton--1975-77 (d), 1978-79 (c), 1980 (b), 1981 (c).

Periphyton--1975-80 (b).

SEDIMENT DATA: 1975-76 (d), 1977 (c), 1978-81 (d), 1982-83 (c).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1955 to September 1959, July 1962 to March 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 26...	0830	2540	90	6.6	7.0	2.0	760	12.0	99	120
JAN 11...	0900	2850	84	6.9	1.0	2.6	740	14.5	105	270
MAR 02...	1315	3190	108	7.6	1.5	3.0	750	14.5	105	K20
APR 13...	0845	6300	90	7.5	6.5	3.5	760	12.9	105	160
JUL 07...	0815	1540	108	7.6	22.0	2.1	765	8.5	97	190
AUG 25...	0800	1150	99	7.6	22.0	2.7	765	8.7	99	130

DATE	100 ML)	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (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- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 26...	58	38	8	13	1.3	3.1	.5	30	12	2.9	
JAN 11...	380	38	5	13	1.3	3.5	.9	33	12	3.0	
MAR 02...	80	49	9	17	1.6	3.9	.9	40	14	3.2	
APR 13...	80	40	7	14	1.3	3.0	.8	33	10	2.6	
JUL 07...	1300	41	7	14	1.5	4.4	.8	34	12	2.6	
AUG 25...	160	38	8	13	1.4	4.7	.7	30	14	2.4	

DATE	AS F)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 26...	.10	5.7	73	57	.23	.070	.30	.020	.010	<.010	
JAN 11...	.10	6.8	78	60	.55	.040	1.30	<.010	<.010	.020	
MAR 02...	.20	6.9	82	72	.61	.060	.30	.030	.020	.020	
APR 13...	.10	5.0	71	57	.40	<.010	.30	.030	.010	<.010	
JUL 07...	.20	5.7	77	62	.37	.030	.50	.020	.040	<.010	
AUG 25...	.20	5.6	67	61	.30	.050	.30	.040	.060	.030	

K Results based on colony count outside the acceptable range (non-ideal colony count).

## STREAMS TRIBUTARY TO LAKE ONTARIO

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04260500 BLACK RIVER AT WATERTOWN, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 26...	70	1	18	<1	<1	<1	<3	4	180	1
MAR 02...	100	1	18	<1	<1	<1	<3	2	200	6
APR 13...	80	<1	45	<1	<1	<1	<3	2	96	2
AUG 25...	<10	1	26	<1	<1	<1	<3	2	250	1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 26...	<4	18	<.1	<10	1	<1	<1	34	<6.0	<4
MAR 02...	<4	43	<.1	<10	1	<1	1	43	<6.0	9
APR 13...	<4	18	<.1	<10	1	<1	1	36	<6.0	39
AUG 25...	<4	19	<.1	<10	1	<1	<1	36	<6.0	44

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SAM- PLING DEPTH (FEET)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUL									
07...	0810	245	1.0	2.0	110	7.7	22.5	8.6	99
07...	0820	195	1.0	4.0	110	7.8	22.5	8.4	97
07...	0821	195	3.0	4.0	110	7.6	22.5	8.6	99
07...	0830	145	1.0	4.3	110	7.8	22.5	8.5	98
07...	0831	145	3.3	4.3	110	7.8	22.5	8.6	99
07...	0840	95	1.0	3.2	110	7.8	22.5	8.5	98
07...	0841	95	2.2	3.2	110	7.9	22.5	8.6	99
07...	0845	45	1.0	4.2	110	7.8	22.5	8.5	98
07...	0846	45	3.2	4.2	110	7.7	22.5	8.6	99

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 26...	0830	2540	2	14	APR 13...	0845	6300	8	136
JAN 11...	0900	2850	3	23	JUL 07...	0815	1540	4	17
MAR 02...	1315	3190	3	26	AUG 25...	0800	1150	3	9.3

## STREAMS TRIBUTARY TO LAKE ONTARIO

## LAKES AND RESERVOIRS IN STREAMS TRIBUTARY TO LAKE ONTARIO

04253300 SIXTH LAKE.--Lat 43°44'43", long 74°46'58", Hamilton County, Hydrologic Unit 04150101, on dam at outlet of Sixth Lake at Inlet, and 11.2 mi upstream from dam at Old Forge. DRAINAGE AREA, 18.6 mi<sup>2</sup>. PERIOD OF RECORD, November 1911 to current year. GAGE, nonrecording gage read daily at 0800. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Hudson River-Black River Regulating District).

The Sixth and Seventh Lakes of Fulton Chain Lakes are partially formed and controlled by the concrete dam at Inlet, while the Eighth Lake is upstream and at approximately 5 ft higher elevation. Storage began around 1881. The present structure is a concrete dam with control gates which were installed in 1938. Usable capacity 296.6 mil ft<sup>3</sup> between minimum operating level, elevation 1,755.1 ft and crest of spillway, elevation 1,786.0 ft; no dead storage below minimum operating level. Figures given herein represent total contents. The dam is operated, records collected, furnished, and stored by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 332 mil ft<sup>3</sup> Oct. 3, 1945, elevation, 1,787.1 ft; minimum observed, less than 900,000 ft<sup>3</sup> Nov. 18, 1943, water level below elevation 1,775.6 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 298.2 mil ft<sup>3</sup> May 2, elevation, 1,786.05 ft; minimum observed, 174.5 mil ft<sup>3</sup> Jan. 10, elevation, 1,782.10 ft.

04253400 FIRST LAKE (formerly published as "Old Forge Reservoir").--Lat 43°42'44", long 74°58'12", Herkimer County, Hydrologic Unit 04150101, at dam on Middle Branch Moose River, and 100 ft downstream from bridge on State Highway 28 at Old Forge, 11.2 mi downstream from dam on Sixth Lake outlet at Inlet. DRAINAGE AREA, 52.1 mi<sup>2</sup>. PERIOD OF RECORD, November 1911 to current year. GAGE, nonrecording gage read daily at 0800. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Hudson River-Black River Regulating District).

The First through Fifth Lakes of Fulton Chain Lakes are partially formed and controlled by a concrete dam with 12-inch flashboards. Storage began around 1881 or 1882 with a wooden crib dam. This dam was replaced with a concrete dam in 1905 and gates were installed in 1927. Usable capacity with flashboards, 895.6 mil ft<sup>3</sup>, elevation, 1,707.0 ft. Usable capacity without flashboards, 764.3 mil ft<sup>3</sup>, elevation, 1,706.1 ft; no dead storage below minimum operating level. Figures given herein represent total contents. The dam is operated, records collected, furnished, and stored by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 1,019 mil ft<sup>3</sup> June 17, 1972, elevation, 1,707.9 ft; minimum observed, 6,500,000 ft<sup>3</sup> Nov. 3, 1939, elevation, 1,699.8 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 938.0 mil ft<sup>3</sup> May 4, 5, elevation, 1,707.20 ft; minimum observed, 476.6 mil ft<sup>3</sup> Jan. 29, 30, 31, Feb. 1, elevation, 1,703.68 ft.

04256500 STILLWATER RESERVOIR NEAR BEAVER RIVER, NY (see station for daily elevation, skeleton capacity table, monthly contents, and change in contents).

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	*Elevation (feet)	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	*Elevation (feet)	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
04253300 Sixth Lake				04253400 First Lake		
Sept. 30.....	1,783.87	229.2		1,706.35	822.5	
Oct. 31.....	1,783.80	227.0	- 0.82	1,705.66	731.8	- 33.9
Nov. 30.....	1,783.27	210.6	- 6.33	1,704.78	617.4	- 44.1
Dec. 31.....	1,782.45	185.0	- 9.56	1,704.73	610.9	- 2.43
CAL YR 1982			- 0.45			+ 5.69
Jan. 31.....	1,782.55	188.2	+ 1.19	1,703.68	476.6	- 50.1
Feb. 28.....	1,783.00	202.2	+ 5.79	1,704.64	599.2	+ 50.7
Mar. 31.....	1,783.33	212.4	+ 3.81	1,704.86	627.8	+ 10.7
Apr. 30.....	1,786.02	297.2	+32.7	1,706.97	906.1	+107.4
May 31.....	1,785.87	292.4	- 1.79	1,706.97	906.1	0.0
June 30.....	1,785.27	273.2	- 7.41	1,706.93	900.9	- 2.01
July 31.....	1,785.00	264.8	- 3.14	1,706.94	902.2	+ 0.49
Aug. 31.....	1,785.40	277.4	+ 4.70	1,707.07	919.8	+ 6.57
Sept. 30.....	1,783.77	226.1	-19.8	1,705.66	731.8	- 72.5
WTR YR 1983			- 0.10			- 2.88

\* Elevation at 2400 hours, by interpolation.



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

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04262500 WEST BRANCH OSWEGATCHIE RIVER NEAR HARRISVILLE, NY

LOCATION.--Lat 44°11'08", long 75°19'52", St. Lawrence County, Hydrologic Unit 04150302, on right bank just downstream from highway bridge, 0.5 mi northeast of Geers Corners, 1.5 mi downstream from Big Creek, and 4.0 mi downstream from Harrisville.

DRAINAGE AREA.--244 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1916 to current year.

REVISED RECORDS.--WSP 784: 1934. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 738.51 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 30, 1933, nonrecording gage at same site and datum.

REMARKS.--Records good except for winter periods, which are fair.

AVERAGE DISCHARGE.--67 years, 515 ft<sup>3</sup>/s, 28.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,080 ft<sup>3</sup>/s Mar. 15, 1977, gage height, 9.31 ft; maximum gage height, 9.6 ft Jan. 9, 1930; minimum discharge, 25 ft<sup>3</sup>/s Sept. 1, 1934, gage height, 0.86 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,340 ft<sup>3</sup>/s April 27, gage height 5.34 ft, no peak discharge above base of 3,300 ft<sup>3</sup>/s; minimum 56 ft<sup>3</sup>/s Sept. 21, gage height 1.28 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	612	245	1290	763	296	302	388	1780	623	143	222	95
2	520	341	1320	662	296	309	364	1590	618	129	433	87
3	469	530	1140	480	530	323	360	1410	545	119	412	78
4	400	732	993	420	1000	313	400	1400	473	108	306	76
5	338	1400	928	400	1190	302	469	1440	482	102	260	76
6	282	2220	921	451	1000	296	511	1370	492	106	222	83
7	251	1930	993	420	710	316	496	1170	530	105	177	80
8	316	1500	986	396	580	438	540	964	550	105	150	73
9	550	1230	860	300	490	702	623	1050	460	105	152	65
10	545	1030	580	345	420	900	668	1360	396	102	148	73
11	460	820	500	460	350	1010	826	1430	345	99	136	80
12	388	702	460	750	320	1020	993	1410	302	92	141	92
13	353	900	400	700	300	950	1050	1270	296	88	299	83
14	313	1220	400	600	290	813	978	1090	257	83	420	71
15	425	1160	433	628	292	696	860	921	216	80	341	66
16	775	950	623	515	286	634	1110	853	192	84	251	65
17	964	763	1090	446	282	575	1680	853	177	81	190	65
18	957	651	1300	388	292	530	1790	763	175	76	170	65
19	820	565	1150	290	296	496	1590	651	175	73	211	67
20	668	501	942	250	286	482	1320	591	159	69	197	62
21	607	460	757	250	286	612	1100	560	146	66	159	63
22	586	511	623	250	306	691	950	520	136	70	137	103
23	520	651	540	276	396	673	928	487	127	68	152	205
24	455	813	520	334	520	580	1000	460	119	66	163	213
25	396	993	640	400	400	496	1390	425	117	63	143	175
26	349	1050	1010	390	350	455	2010	416	113	63	124	143
27	316	928	1300	340	320	416	2230	464	130	61	110	127
28	292	744	1320	310	313	396	2250	473	192	61	102	119
29	276	708	1240	290	---	446	2110	429	197	57	99	110
30	260	950	1120	290	---	446	1920	429	173	71	91	101
31	239	---	935	292	---	416	---	555	---	93	89	---
TOTAL	14702	27198	27314	13086	12397	17034	32904	28584	8913	2688	6207	2861
MEAN	474	907	881	422	443	549	1097	922	297	86.7	200	95.4
MAX	964	2220	1320	763	1190	1020	2250	1780	623	143	433	213
MIN	239	245	400	250	282	296	360	416	113	57	89	62
CFSM	1.94	3.72	3.61	1.73	1.82	2.25	4.50	3.78	1.22	.36	.82	.39
IN.	2.24	4.15	4.16	2.00	1.89	2.60	5.02	4.36	1.36	.41	.95	.44

CAL YR 1982	TOTAL	212430	MEAN	582	MAX	4750	MIN	64	CFSM	2.39	IN	32.39
WTR YR 1983	TOTAL	193888	MEAN	531	MAX	2250	MIN	57	CFSM	2.18	IN	29.56

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY  
(National stream-quality accounting network station)

LOCATION.--Lat 44°35'58", long 75°22'45", St. Lawrence County, Hydrologic Unit 04150302, on right bank 1.5 mi downstream from Beaver Creek, and 2.5 mi upstream from Heuvelton. Water-quality sampling site at discharge station except for the collection of once daily specific conductance and water temperature data which is collected at powerhouse 2.6 mi downstream lat 44°37'02", long 75°24'18".

DRAINAGE AREA.--965 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1916 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 288.85 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 16, 1916, nonrecording gage at same site and datum.

REMARKS.--Records excellent except those for winter periods, which are fair. Since 1867, seasonal flow regulated by Cranberry Lake; slight diurnal fluctuation at low flow and medium flow caused by powerplants. During high stages on Grass River, part of flow of that stream may pass through Upper Lake, Indian Creek and Lower Lake and enter Oswegatchie River at Rensselaer Falls, 4.5 mi above station. In October 1973, a dike was installed on Indian Creek to prevent overflow of Grass River during high flows.

AVERAGE DISCHARGE.--67 years, 1,726 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft<sup>3</sup>/s Apr. 6, 1960, gage height, 10.36 ft; minimum recorded, 130 ft<sup>3</sup>/s Aug. 17, 1949, gage height, 0.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,730 ft<sup>3</sup>/s Apr. 27, gage height, 5.52 ft; minimum, 140 ft<sup>3</sup>/s Sept. 21, gage height, 0.61 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1970	959	3770	2900	1160	1140	1740	5690	1480	727	351	383
2	1670	735	4010	2460	1400	1130	1520	5910	1620	677	574	463
3	1380	1070	3800	2100	2680	1150	1330	6020	1740	559	975	499
4	1040	2370	3500	1800	4090	1270	1460	5940	1640	463	1150	597
5	933	4780	3180	1600	3890	1340	1710	5780	1550	409	1070	477
6	1060	6250	2840	1640	3470	1220	2010	5500	1240	339	901	281
7	982	6490	2540	1830	2700	1360	2000	4960	1280	370	744	199
8	1030	6000	2900	1600	2100	1740	1990	4380	1550	559	590	249
9	1160	5120	2900	1400	1700	2400	2000	4300	1550	450	506	377
10	1400	4220	2200	1300	1400	2980	1950	4570	1440	463	477	345
11	1310	3550	1800	1600	1250	3340	2570	4820	1300	390	711	416
12	1130	3050	1500	2670	1150	3260	3050	4910	1180	396	661	364
13	1270	3360	1300	2500	1000	3090	3460	4700	965	339	686	309
14	1240	4080	1400	2200	960	2460	3180	4280	727	351	613	281
15	1180	3950	1600	1900	946	2310	3080	3770	910	450	653	364
16	1100	3660	2040	1700	1010	2270	4110	3420	947	514	653	383
17	1620	3130	3400	1500	1070	2050	5230	3210	856	492	752	351
18	2010	2700	3700	1300	1210	1850	5480	2980	711	377	637	345
19	2000	2370	3500	1200	1270	1960	5450	2630	848	309	436	364
20	1980	2160	3200	1100	1180	2110	5110	2380	597	270	416	228
21	1820	1960	2800	1050	1030	1970	4700	2300	499	358	416	162
22	1700	1930	2500	1000	937	2010	4470	2090	686	333	364	233
23	1480	2100	2300	1050	1550	2180	4820	1880	839	403	377	249
24	1370	2720	2190	1100	2500	1970	4790	1690	629	339	351	477
25	1200	3550	2300	1150	2370	1750	4980	1590	470	339	358	661
26	952	3620	3510	1610	2100	1560	5980	1590	521	281	377	590
27	1190	3450	4540	1540	1700	1490	6630	1550	456	204	358	477
28	1230	3010	4590	1410	1320	1400	6550	1540	396	377	423	409
29	1180	2580	4620	1300	---	1580	6060	1470	559	423	436	429
30	1110	3390	4190	1220	---	1790	5650	1340	605	298	377	492
31	1020	---	3580	1160	---	1720	---	1190	---	287	309	---
TOTAL	41717	98314	92200	49890	49143	59850	113060	108380	29791	12546	17702	11454
MEAN	1346	3277	2974	1609	1755	1931	3769	3496	993	405	571	382
MAX	2010	6490	4620	2900	4090	3340	6630	6020	1740	727	1150	661
MIN	933	735	1300	1000	937	1130	1330	1190	396	204	309	162
CAL YR 1982	TOTAL	719807	MEAN	1972	MAX	9430	MIN	283				
WTR YR 1983	TOTAL	684047	MEAN	1874	MAX	6630	MIN	162				

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

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04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1966-69, 1971-72, 1978 to current year.

CHEMICAL DATA: 1960 (a), 1966 (b), 1968-69 (d), 1971-72 (a), 1978 (c), 1979-80 (d), 1981-82 (c), 1983 (b).

MINOR ELEMENTS DATA: 1978-79 (b), 1980 (c), 1981-83 (b).

ORGANIC DATA: OC--1978 (c), 1979-80 (d), 1981 (c).

NUTRIENT DATA: 1978 (c), 1979-80 (d), 1981-82 (c), 1983 (b).

BIOLOGICAL DATA:

Bacteria--1978 (c), 1979-80 (d), 1981-82 (c), 1983 (b).

Phytoplankton--1978-80 (c), 1981 (b).

Periphyton--1978-80 (b).

SEDIMENT DATA: 1978 (c), 1979-80 (d), 1981-83 (c).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1978 to September 1981.

WATER TEMPERATURES: January 1978 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 155 micromhos Jan. 31, 1981; minimum daily, 22 micromhos sometime in February 1980.

WATER TEMPERATURES: Maximum daily, 28.0°C July 28, 1978 and July 23-28, 1979; minimum daily, freezing point on many days during winter periods.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
DEC 01...	1130	3710	98	7.3	2.5	8.8	760	12.1	89	540
MAR 15...	1100	2310	100	7.1	3.0	2.4	750	13.5	102	130
JUN 10...	0930	1460	104	7.0	17.0	1.1	760	9.6	100	73
AUG 17...	0900	744	120	7.5	23.5	1.1	760	8.1	96	K40

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
DEC 01...	K5700	51	12	14	3.9	2.4	1.1	39	15	3.0
MAR 15...	96	41	8	11	3.3	2.8	.8	33	14	3.3
JUN 10...	K17	43	13	12	3.1	2.9	.6	30	18	2.7
AUG 17...	36	51	20	15	3.2	3.7	.7	31	21	4.0

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)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P)
DEC 01...	.10	5.9	77	69	.30	.060	.50	.040	.020	.010
MAR 15...	.10	4.7	68	60	.28	.050	<.10	.020	<.010	<.010
JUN 10...	.20	4.0	66	62	.16	.010	.40	.040	.030	.010
AUG 17...	.10	5.1	86	72	.25	<.010	<.10	.030	.030	.010

K Results based on colony count outside the acceptable range (non-ideal colony count).

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
DEC 01...	100	<1	24	<1	<1	2	<3	1	190	1
MAR 15...	60	1	20	<1	<1	<1	<3	1	120	1
JUN 10...	60	1	27	1	1	<1	3	2	220	5
AUG 17...	20	1	32	<1	<1	<1	<3	<1	280	6

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 01...	<4	13	<.1	<10	<1	<1	<1	57	<6.0	13
MAR 15...	<4	18	<.1	<10	1	<1	<1	47	<6.0	12
JUN 10...	4	24	<.1	10	<1	<1	<1	62	6.0	13
AUG 17...	<4	25	<.1	<10	<1	<1	<1	97	6.0	10

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SAM- PLING DEPTH (FEET)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN									
10...	0920	250	1.0	4.8	105	7.0	17.0	8.6	89
10...	0921	250	3.8	4.8	105	6.9	17.0	8.5	88
10...	0935	210	1.0	6.0	104	7.0	17.0	8.6	89
10...	0936	210	5.0	6.0	104	6.9	17.0	8.5	88
10...	0940	170	1.0	7.2	104	7.1	17.0	8.5	88
10...	0941	170	6.2	7.2	104	7.0	17.0	8.5	88
10...	0950	130	1.0	4.4	104	7.1	17.0	8.5	88
10...	0951	130	3.4	4.4	104	7.0	17.0	8.6	89
10...	1000	90	2.0	2.0	104	7.1	17.0	8.5	88

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
DEC 01...	1130	3710	9	90	JUN 10...	0930	1460	2	7.9
MAR 15...	1100	2310	4	25	AUG 17...	0900	744	1	2.0



## ST. LAWRENCE RIVER MAIN STEM

175

04264050 ST. LAWRENCE RIVER NEAR WADDINGTON, NY

LOCATION.--Lat 44°51'27", long 75°14'46", St. Lawrence County, Hydrologic Unit 04150301, on right bank at Leishman Point, 2.1 mi west of Waddington, 2.5 mi upstream from Sucker Brook, and 3.3 mi downstream from Iroquois Dam.

DRAINAGE AREA.--298,500 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1976 to November 1976, November 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is International Great Lakes Datum.

REMARKS.--Flow regulated by international agreement administered by International St. Lawrence River Board of control under the International Joint Commission. Records do not include water diverted from Lake Michigan by Chicago Sanitary and Ship Canal, operation of which began in 1900. Records include water diverted into Lake Superior from Hudson Bay drainage by the Long Lake Project, operation of which began in July 1939, and by the Ogoki Project, operation of which began in July 1943.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 244.80 ft Apr. 6, 1976; minimum daily, 236.30 ft Feb. 26, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 243.11 ft May 13; minimum recorded, 239.00 ft Dec. 13.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240.46		---	241.13	241.62	240.86	240.70	241.57	242.13	241.57	241.51	---
2	240.22		---	241.20	241.21	240.72	240.43	241.47	242.20	241.69	241.63	241.05
3	---		---	240.91	241.59	240.84	240.02	241.76	242.17	241.65	241.61	241.05
4	240.13		---	240.53	241.98	240.70	240.50	241.95	242.03	241.60	241.50	240.94
5	---		---	240.99	241.72	240.45	240.86	242.08	242.10	241.66	241.37	240.91
6	---		---	240.98	241.52	240.42	240.80	242.09	242.11	---	241.41	240.92
7	---		---	241.06	241.27	240.46	240.69	242.21	242.23	---	241.37	241.05
8	---		239.76	241.42	241.50	240.44	240.89	242.36	242.21	---	241.51	240.95
9	---		239.39	240.95	241.59	240.57	240.58	242.44	242.08	---	241.42	240.97
10	---		239.48	240.92	242.06	240.55	240.37	242.82	---	---	241.11	241.01
11	239.63		239.63	241.35	241.96	240.48	240.64	242.79	242.07	---	240.98	240.96
12	240.06		239.26	241.51	241.46	240.59	240.93	242.79	242.10	---	240.42	240.82
13	---		239.05	241.34	241.62	240.87	240.83	243.01	242.11	---	240.65	240.46
14	---		239.35	241.23	241.76	240.99	240.86	242.91	242.00	---	240.88	240.37
15	---		239.31	240.91	241.77	241.03	241.10	242.86	241.88	---	240.96	240.32
16	---		239.26	240.90	241.64	241.00	241.24	242.63	241.87	---	240.99	240.14
17	---		239.00	241.44	241.61	240.80	241.21	242.64	242.02	---	241.03	240.46
18	---		238.94	241.74	241.40	240.67	241.15	242.70	242.06	---	240.98	240.57
19	---		239.14	241.78	240.87	240.48	240.90	242.54	241.79	---	241.05	240.59
20	---		239.24	241.77	240.69	241.17	240.93	242.70	241.55	241.25	241.30	240.54
21	---		239.46	241.92	240.82	240.46	241.39	242.48	241.44	241.25	241.16	240.64
22	---		239.58	241.70	240.73	240.77	241.63	242.13	241.45	241.14	241.07	240.64
23	---		239.38	241.64	240.82	241.26	241.57	---	241.54	241.27	241.07	240.71
24	---		239.35	241.93	240.99	241.10	241.21	---	241.51	241.39	240.97	240.68
25	---		239.98	242.37	240.82	240.82	241.04	---	241.48	241.28	240.91	240.65
26	---		240.73	242.18	240.81	240.77	241.43	---	241.70	241.22	---	240.65
27	---		240.50	242.06	241.06	240.59	241.53	242.34	241.80	241.30	---	240.69
28	---		240.59	241.95	241.07	240.62	241.60	242.21	241.36	241.36	---	---
29	---		241.55	241.68	---	240.75	241.79	241.98	241.30	241.41	---	---
30	---		241.13	241.36	---	240.81	241.54	241.93	241.36	241.54	---	---
31	---		240.82	241.69	---	240.81	---	242.02	---	241.32	---	---
MEAN	---		---	241.44	241.36	240.74	241.01	---	---	---	---	---
MAX	---		---	242.37	242.06	241.26	241.79	---	---	---	---	---
MIN	---		---	240.53	240.69	240.42	240.02	---	---	---	---	---

## ST. LAWRENCE RIVER MAIN STEM

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY  
(National stream-quality accounting network station)  
(National radiochemical network station)

LOCATION.--Lat 45°00'22", long 74°47'43", Stormont County, Ontario--St. Lawrence County, N.Y., Hydrologic Unit 04150301, at Robert Moses--Robert H. Saunders power dam on Lake St. Lawrence at the International Boundary at Cornwall, Ontario, 2.9 mi upstream from Grass River, 6.2 mi upstream from Raquette River, and 5.9 mi northeast of Massena, N.Y.. Water-quality samples collected at power dam from taps at generators 17 and 30.

DRAINAGE AREA.--298,800 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1860 to current year. Monthly discharges only for some periods, published in WSP 1307. Prior to October 1971 published as 04264000 "St. Lawrence River at Ogdensburg."

REVISED RECORDS.--WSP 1437: 1870, 1874, 1881, 1883, 1890.

GAGE.--There is no gage. Discharge is determined from summation of discharge through the Robert Moses--Robert H. Saunders power dam, the Long Sault Dam, the Massena Diversion, the Rasin River Diversion, the Cornwall and Massena municipal water supply, and the Cornwall and the Wiley-Dondero navigation canals. U.S.-Canada coordinated discharge figures supplied by Corps of Engineers. Prior to 1956, base gage at lock 25 at Iroquois Ont. with supplementary gages. August 1956 to June 1958, base gage at lock 24 between Iroquois and Morrisburg, Ont., and supplementary gages. Prior to Aug. 1956, these were gages of the Canadian Hydrographic Service and from August 1956 to June 1958, were gages of the Hydro-Electric Power Commission of Ontario. Discharge in the reach of river at Cornwall, Ont.--near Massena, N.Y. is considered to be the same as discharge at Ogdensburg, N.Y. when adjusted for storage in Lake St. Lawrence.

REMARKS.--Since July 1958, flow regulated by international agreement administered by International St. Lawrence River Board of Control under the International Joint Commission. Records do not include water diverted from Lake Michigan by Illinois and Michigan Canal during period of its operation prior to 1910 and by Chicago Sanitary and Ship Canal, which began operation in 1900. Records include water diverted into Lake Superior from Hudson Bay drainage by the Long Lake Project, which began operation in July 1939, and by the Ogoki project, which began operation in July 1943.

COOPERATION.--Records of daily discharge furnished by Buffalo District, Corps of Engineers through International St. Lawrence River Board of Control.

AVERAGE DISCHARGE.--123 years (1860-1983), 243,300 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 352,000 ft<sup>3</sup>/s June 22, 1976; minimum daily, 139,000 ft<sup>3</sup>/s Feb. 7, 1936. Maximum monthly discharge, 350,000 ft<sup>3</sup>/s July 1973; minimum monthly, 154,000 ft<sup>3</sup>/s Feb. 1936.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 302,000 ft<sup>3</sup>/s May 28-June 3, June 24; minimum daily, 210,000 ft<sup>3</sup>/s Feb. 10-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267000	259000	273000	245000	240000	269000	270000	284000	302000	291000	274000	277000
2	270000	259000	273000	245000	240000	269000	274000	284000	302000	287000	274000	277000
3	270000	259000	273000	245000	240000	269000	274000	284000	302000	287000	274000	280000
4	270000	260000	275000	245000	240000	269000	274000	284000	300000	287000	274000	280000
5	270000	259000	275000	245000	240000	268000	274000	284000	300000	287000	274000	280000
6	270000	263000	275000	245000	240000	268000	274000	279000	300000	287000	277000	280000
7	270000	263000	275000	245000	240000	268000	274000	271000	300000	287000	277000	280000
8	270000	263000	275000	235000	240000	268000	274000	271000	300000	287000	277000	280000
9	265000	263000	275000	235000	232000	268000	276000	266000	300000	285000	277000	280000
10	265000	263000	275000	235000	210000	268000	276000	261000	300000	285000	277000	280000
11	265000	263000	279000	235000	210000	268000	276000	261000	299000	285000	277000	280000
12	265000	263000	279000	235000	210000	268000	276000	256000	299000	285000	277000	280000
13	265000	267000	279000	235000	210000	268000	276000	252000	299000	285000	278000	280000
14	265000	267000	279000	235000	215000	268000	276000	262000	299000	285000	278000	276000
15	265000	267000	279000	235000	226000	268000	276000	271000	299000	285000	278000	283000
16	263000	267000	279000	235000	232000	268000	276000	271000	295000	283000	278000	281000
17	263000	267000	279000	228000	243000	268000	276000	271000	290000	283000	278000	276000
18	263000	267000	270000	220000	256000	268000	276000	276000	293000	263000	278000	276000
19	263000	267000	270000	220000	269000	267000	276000	278000	301000	284000	277000	276000
20	263000	270000	270000	218000	269000	267000	276000	285000	301000	283000	275000	276000
21	263000	270000	270000	214000	269000	267000	273000	293000	301000	283000	275000	276000
22	265000	270000	270000	220000	269000	267000	272000	293000	301000	281000	275000	276000
23	263000	270000	260000	220000	269000	267000	276000	293000	301000	277000	275000	276000
24	263000	270000	270000	220000	269000	267000	276000	293000	302000	277000	275000	274000
25	263000	270000	255000	220000	269000	267000	276000	295000	291000	277000	275000	274000
26	263000	270000	255000	220000	269000	270000	276000	298000	291000	277000	275000	274000
27	263000	273000	255000	220000	269000	270000	276000	298000	291000	277000	277000	274000
28	263000	273000	255000	220000	269000	270000	277000	302000	291000	277000	277000	274000
29	264000	273000	255000	240000	---	290000	276000	302000	291000	277000	277000	274000
30	259000	273000	255000	240000	---	270000	284000	302000	291000	274000	277000	274000
31	258000	---	255000	240000	---	270000	---	302000	---	274000	277000	---
TOTAL	8214000	7988000	8362000	7190000	6854000	8337000	8262000	8722000	8932000	8742000	8564000	8324000
MEAN	265000	266300	269700	231900	244800	268900	275400	281400	297700	282000	276300	277500
MAX	270000	273000	279000	245000	269000	290000	284000	302000	302000	291000	278000	283000
MIN	258000	259000	255000	214000	210000	267000	270000	252000	290000	263000	274000	274000

CAL YR 1982 TOTAL 98532000 MEAN 270000 MAX 310000 MIN 210000  
WTR YR 1983 TOTAL 98491000 MEAN 269800 MAX 302000 MIN 210000

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1966 to current year. Prior to October 1970, published as "near Massena, NY."

CHEMICAL DATA: 1955 (a), 1974 (c), 1975-81 (d), 1982-83 (c).

MINOR ELEMENTS DATA: 1974-77 (b), 1978 (a), 1979 (b), 1980 (c), 1981-83 (b).

RADIOCHEMICAL DATA: 1974-83 (a).

ORGANIC DATA: OC--1974 (a), 1975 (b), 1977 (b), 1978-81 (d).

NUTRIENT DATA: 1974-75 (c), 1976-81 (d), 1982-83 (c).

BIOLOGICAL DATA:

Bacteria--1974 (c), 1975-81 (d), 1982-83 (c).

Phytoplankton--1974 (a), 1975-77 (d), 1978-81 (c).

Periphyton--1974 (a), 1975 (c), 1976-80 (b).

SEDIMENT DATA: 1975 (d), 1976-77 (c), 1978-81 (d), 1982-83 (c).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1975 to current year.

WATER TEMPERATURES: October 1955 to October 1958, unpublished; January 1966 to current year.

REMARKS.--Temperature observations made approximately 68 ft (21 m) below normal forebay level. Temperature observations from October 1955 to October 1958 made at Aluminum Company of America Massena Canal power station.

COOPERATION.--Water-temperature record furnished by the Power Authority of the State of New York.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 400 micromhos Aug. 7, 1978, Mar. 29, 1979; minimum daily, 250 micromhos Dec. 21, 1978.

WATER TEMPERATURES: Maximum daily, 24.5°C on several days in August and September 1973 and August 1975; minimum daily, freezing point on many days during winter periods except 1972-74, 1979, 1982-83.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 340 micromhos on several days during December, June and July; minimum daily, 280 micromhos on several days during October, November and July.

WATER TEMPERATURES: Maximum daily, 24.0°C Aug. 7, 10, 11; minimum daily, 0.5°C Jan. 26.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

							BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)				
OCT 27...	1015	263000	328	7.8	10.5	1.4	770	11.4	101	K16
JAN 26...	0900	220000	305	8.6	.5	<1.0	770	14.4	99	K3
MAR 28...	0945	270000	296	8.7	2.0	1.9	755	14.0	102	<1
MAY 23...	1000	293000	295	7.9	10.5	2.0	750	11.0	100	K5
JUN 27...	1000	291000	310	8.0	18.5	.60	760	9.6	103	K6
AUG 26...	0945	275000	305	8.3	21.5	1.1	765	9.0	102	K4
	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 27...	K1	130	33	38	7.7	12	1.1	94	28	25
JAN 26...	200	130	33	38	8.1	14	1.5	95	29	25
MAR 28...	K5	130	34	39	7.9	12	1.4	96	27	25
MAY 23...	K2	130	32	38	7.8	13	1.4	95	26	23
JUN 27...	K17	130	31	37	8.0	16	1.4	95	27	26
AUG 26...	K2	130	39	38	8.3	12	1.4	90	27	25

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
JAN										
26...	0901	<4.8	<.4	3.9	<.4	3.7	<.4	.06	.21	--
JUN										
27...	1005	<6.5	<.6	3.4	<.6	2.8	<.6	.04	--	.7

K Results based on colony count outside the acceptable range (non-ideal colony count).

## ST. LAWRENCE RIVER MAIN STEM

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS P)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 27...	.20	.5	176	169	.14	<.010	.30	.030	.010	<.010
JAN 26...	.10	.2	176	173	.26	<.010	<.10	.040	<.010	<.010
MAR 28...	.20	.1	174	170	.24	.020	.40	<.010	<.010	.020
MAY 23...	.10	<.01	195	166	.23	<.010	.40	<.010	<.010	<.010
JUN 27...	.20	.1	197	173	.17	.040	.40	.020	.020	<.010
AUG 26...	.20	.5	185	167	.14	.020	.50	.050	.030	.010

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 27...	<10	1	30	<1	<1	<1	<3	4	5	1
MAR 28...	<10	1	28	<1	<1	1	<3	2	<3	6
MAY 23...	<10	1	29	<1	<1	<1	<3	3	8	2
AUG 26...	<10	2	42	<1	<1	<1	<3	3	<3	1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 27...	<4	<1	.3	<10	3	<1	<1	180	<6.0	6
MAR 28...	<4	<1	<.1	<10	3	<1	<1	180	<6.0	18
MAY 23...	<4	<1	.1	<10	<1	<1	<1	180	<6.0	13
AUG 26...	5	<1	<.1	<10	1	<1	<1	180	<6.0	9

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 27...	1015	263000	3	2130	MAY 23...	1000	293000	4	3160
JAN 26...	0900	220000	1	594	JUN 27...	1000	291000	3	2360
MAR 28...	0945	270000	2	1460	AUG 26...	0945	275000	7	5200



04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
ONCE-DAILY

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	330	320	310	310	315	300	310	---	---	300	310
2	280	310	320	310	---	310	300	310	---	---	300	310
3	280	310	330	300	310	300	300	310	305	320	300	310
4	280	310	330	300	310	300	295	310	---	---	300	310
5	280	310	330	310	---	305	300	315	310	340	300	310
6	280	310	330	310	310	310	300	310	310	320	300	310
7	280	310	330	310	300	310	300	310	315	315	300	310
8	280	310	330	310	300	310	---	---	315	310	---	310
9	280	310	---	300	300	305	300	---	320	310	---	310
10	280	300	340	300	300	300	---	310	320	315	300	310
11	300	300	340	300	---	305	305	---	320	325	300	310
12	280	300	---	300	300	310	---	325	320	320	330	---
13	290	300	340	---	300	305	---	---	320	320	295	310
14	290	300	---	310	300	310	300	310	320	320	295	310
15	290	---	340	300	300	305	---	305	320	320	300	310
16	290	300	---	300	300	305	300	330	320	315	300	310
17	290	300	320	300	300	310	---	320	320	---	300	310
18	290	300	320	300	300	---	295	320	325	310	310	310
19	290	300	320	310	300	---	---	315	---	310	310	310
20	290	---	320	310	300	---	290	315	330	310	305	310
21	290	---	320	310	310	310	295	310	335	310	---	310
22	300	310	320	310	300	---	295	310	330	330	300	310
23	290	300	290	310	310	305	---	310	330	---	300	---
24	290	280	310	310	300	---	295	310	335	---	310	310
25	290	310	310	310	305	310	290	310	335	340	310	310
26	290	320	310	310	310	---	300	---	330	340	305	310
27	290	320	310	310	310	---	295	310	340	280	310	310
28	300	310	320	300	310	---	---	310	330	290	---	310
29	310	310	310	300	---	290	305	315	320	300	---	330
30	310	320	310	310	---	300	310	320	320	300	---	310
31	310	---	320	310	---	300	---	300	---	300	320	---
MEAN	289	307	322	306	304	306	299	313	323	315	304	311

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04266500 RAQUETTE RIVER AT PIERCEFIELD, NY

LOCATION.--Lat 44°14'05", long 74°34'20", St. Lawrence County, Hydrologic Unit 04150305, on left bank 0.5 mi downstream from powerplant at Piercefield, and 1.5 mi upstream from Dead Creek.

DRAINAGE AREA.--721 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1908 to current year.

REVISED RECORDS.--WSP 604: 1924. WSP 1387: 1910, 1913, 1914(M), 1916, 1921. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,502.12 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1912, nonrecording gage at same site (datum of gage lowered 2 ft Jan. 1, 1911, to present datum).

REMARKS.--Records good except those for winter periods, which are fair. Seasonal distribution of flow modified by natural storage in lakes and ponds upstream from station and by regulation of Forked Lake, Round Lake, Lows Lake, and Raquette Pond (Tupper Lake) at Setting Pole Dam. Extensive diurnal fluctuation caused by powerplant at Piercefield.

AVERAGE DISCHARGE.--75 years, 1,296 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,360 ft<sup>3</sup>/s May 8, 1972, gage height, 12.25 ft; minimum daily, 4.1 ft<sup>3</sup>/s Oct. 12, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,650 ft<sup>3</sup>/s May 7, gage height, 10.38 ft; minimum daily, 121 ft<sup>3</sup>/s July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	813	939	1590	1750	799	632	1170	4030	2210	784	599	456
2	804	987	1590	1690	799	533	1140	4270	2150	760	788	473
3	815	904	1600	1690	574	506	1140	4670	2140	740	935	411
4	824	1040	1590	1630	537	507	1170	5020	2110	660	977	344
5	767	1270	1590	1490	511	609	1010	5310	2090	310	972	378
6	794	1380	1480	1480	609	614	1140	5510	2050	522	908	384
7	778	1520	1570	1510	624	701	1110	5620	2020	421	913	196
8	818	1700	1580	1440	666	742	1120	5490	1980	497	736	257
9	815	1740	1540	1390	789	969	1020	5350	1980	473	949	320
10	965	1790	1620	1330	852	903	1050	5360	1900	344	868	466
11	844	1810	1390	1270	875	1030	1170	5160	1720	393	801	364
12	924	1980	1410	1230	947	954	1330	4990	1610	372	904	364
13	885	2470	1370	1330	946	1010	1420	4780	1550	261	1200	216
14	827	2450	1320	1210	920	1050	1400	4570	1380	275	1500	372
15	985	2400	1380	1180	928	1280	1590	4360	1410	187	1510	295
16	944	2400	1390	1180	955	1150	1890	4170	1450	157	1440	344
17	939	2380	1460	1140	939	1130	2060	4000	1380	121	1350	261
18	1110	2190	1490	1140	928	1170	2270	3820	1350	128	1250	393
19	981	1980	1500	1090	887	1180	2390	3660	1090	187	1100	310
20	1130	1890	1490	1000	900	1340	2430	3430	1350	168	995	261
21	1060	1750	1470	1020	905	1470	2400	3210	1370	170	913	430
22	1040	1580	1440	968	851	1450	2350	3040	1260	185	519	486
23	1140	1640	1410	1000	853	1410	2320	2880	772	250	390	616
24	1060	1600	1390	860	831	1420	2330	2720	675	254	529	809
25	1160	1600	1390	879	825	1400	2530	2590	860	254	555	949
26	1240	1610	1410	815	805	1390	2830	2510	697	378	506	944
27	937	1570	1210	801	797	1310	3090	2400	954	224	627	772
28	1080	1560	1190	743	714	1320	3350	2330	805	280	500	638
29	965	1550	1950	786	---	1170	3590	2260	895	323	503	449
30	979	1580	1990	799	---	1250	3820	2220	826	273	620	372
31	875	---	1720	802	---	1120	---	2220	---	500	479	---
TOTAL	29298	51260	46520	36643	22566	32720	57630	121950	44034	10851	26836	13330
MEAN	945	1709	1501	1182	806	1055	1921	3934	1468	350	866	444
MAX	1240	2470	1990	1750	955	1470	3820	5620	2210	784	1510	949
MIN	767	904	1190	743	511	506	1010	2220	675	121	390	196
CAL YR 1982	TOTAL	489198	MEAN	1340	MAX	6300	MIN	174				
WTR YR 1983	TOTAL	493638	MEAN	1352	MAX	5620	MIN	121				

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

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## 04267500 RAQUETTE RIVER AT SOUTH COLTON, NY

LOCATION.--Lat 44°30'42", long 74°53'00", St. Lawrence County, Hydrologic Unit 04150305, on left bank 300 ft upstream from bridge on State Highway 56 at South Colton, 500 ft downstream from Niagara Mohawk Power Corp. powerplant, and 0.8 mi upstream from Cold Brook.

DRAINAGE AREA.--937 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1953 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 882.05 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for periods of no gage height record, Oct. 18-21, and Nov. 30 to Dec. 8, which are poor. Flow regulated 16 mi upstream by Carry Falls Reservoir since 1953; considerable natural storage in large lakes above Piercefield. Large diurnal fluctuation caused by five powerplants.

AVERAGE DISCHARGE.--30 years, 1,766 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,720 ft<sup>3</sup>/s May 11, 1971, gage height, 9.80 ft; minimum, 1.3 ft<sup>3</sup>/s Feb. 1, 1962, Aug. 8, 1964, gage height, 1.53 ft; minimum daily, 4.6 ft<sup>3</sup>/s June 2, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,300 ft<sup>3</sup>/s May 9, gage height, 8.51 ft; minimum, 7.4 ft<sup>3</sup>/s Sept. 30, gage height, 1.67 ft; minimum daily, 231 ft<sup>3</sup>/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	789	1060	1700	2020	1430	1680	1090	5050	2770	1680	433	1270
2	533	1430	1700	2250	1860	1450	1400	5340	2730	966	404	1280
3	1010	1300	1500	2430	1350	1520	1350	5390	2580	930	336	1210
4	1010	1200	1700	2220	1460	1650	1500	6510	2720	1150	744	742
5	1040	1200	1500	1920	1700	1390	1160	6280	2720	1200	918	1160
6	1130	1600	1800	2070	1160	1340	1430	6130	2910	1210	1090	889
7	1270	1800	1400	2450	1610	1050	986	6190	2960	1500	596	1460
8	957	1700	1700	1820	1530	1640	1330	6560	3070	1230	941	1040
9	492	1600	1620	2240	1390	1450	1020	6980	2730	407	834	1260
10	461	1700	1620	2200	1760	1500	983	6630	2230	735	1570	231
11	802	1900	1750	1900	1370	1360	1380	6690	1680	717	1280	420
12	1060	1600	1630	1950	1560	1670	1710	6510	1820	1420	1140	1060
13	805	1700	1820	1820	1210	1270	1200	6160	1910	1380	860	694
14	918	1500	2050	1730	1840	1650	1700	5680	1700	1230	1010	1500
15	844	1700	1830	1940	1290	1670	1430	5740	1770	1200	1300	1790
16	770	1800	2130	1890	1690	1660	623	5290	1660	1070	1190	1190
17	743	1700	1840	1890	1770	1660	1300	5060	1530	925	1400	570
18	420	1800	2090	2190	1550	1170	1550	4570	1790	1350	1360	372
19	380	1900	2270	1950	1340	1120	1580	4530	1230	1500	1280	1070
20	540	1700	1990	1710	1520	1010	2120	4230	1710	1330	1060	1290
21	800	1700	2300	1710	1650	1570	2720	3860	1750	1260	1310	1180
22	1110	1700	2130	1880	1530	1160	2670	3850	1490	1230	1150	916
23	568	1800	1900	1550	1810	1350	2750	3850	1480	618	1330	1630
24	721	1800	2150	1830	1390	1610	2530	3800	1880	423	953	367
25	1360	1700	2210	2100	1620	1670	3040	3680	1340	730	1530	563
26	1180	1300	2240	1790	1460	1340	3370	3660	1010	1060	1410	999
27	1340	1900	2300	1940	1470	987	3660	3420	1530	1300	971	1090
28	1240	1500	1660	1760	1360	1010	3920	2760	689	1080	971	1040
29	1590	1700	2270	1780	---	1580	3870	2720	1670	1430	1060	767
30	1410	1200	2010	1230	---	1810	4570	2890	1020	270	1330	999
31	963	---	1910	1560	---	1400	---	2080	---	523	1190	---
TOTAL	28256	48190	58720	59720	42680	44397	59942	152090	58079	33054	32951	30049
MEAN	911	1606	1894	1926	1524	1432	1998	4906	1936	1066	1063	1002
MAX	1590	1900	2300	2450	1860	1810	4570	6980	3070	1680	1570	1790
MIN	380	1060	1400	1230	1160	987	623	2080	689	270	336	231
CAL YR 1982	TOTAL	642909	MEAN	1761	MAX	5770	MIN	241				
WTR YR 1983	TOTAL	648128	MEAN	1776	MAX	6980	MIN	231				

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04268000 RAQUETTE RIVER AT RAYMONDVILLE, NY  
(National stream-quality accounting network station)

LOCATION.--Lat 44°50'20", long 74°58'45", St. Lawrence County, Hydrologic Unit 04150305, on right bank 250 ft upstream from bridge on Grant Road at Raymondville, 0.3 mi downstream from Trout Brook, 0.4 mi downstream from Niagara Mohawk Power Corp. powerplant, and 18.0 mi upstream from mouth. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,125 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1943 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 183.33 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are poor. Extensive diurnal fluctuation caused by power and industrial operations. Flow regulated since 1953 by Carry Falls Reservoir, about 46 mi upstream and by Niagara Mohawk Power Corp. powerplant, 0.4 mi upstream; considerable natural storage in large lakes above Piercefield.

AVERAGE DISCHARGE.--39 years (1945-83), 2,060 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft<sup>3</sup>/s Apr. 5, 1974, gage height, 8.40 ft; maximum gage height, 9.24 ft Feb. 22, 1954 (backwater from ice); minimum discharge, 2.2 ft<sup>3</sup>/s Sept. 18, 19, 1966; minimum gage height, 0.42 ft July 13, 1950; minimum daily discharge, 7.0 ft<sup>3</sup>/s Oct. 15, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,250 ft<sup>3</sup>/s May 10, gage height, 6.45 ft; minimum discharge, 20 ft<sup>3</sup>/s several days in July and September, gage height, 0.60 ft; minimum daily, 445 ft<sup>3</sup>/s Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2210	1470	2440	2530	1940	1940	1700	5580	2890	1500	793	1490
2	2410	1560	2430	2500	2080	1970	1690	6910	2740	1370	648	1510
3	1560	1620	2410	2520	2490	1970	1680	6790	2630	1040	685	1360
4	804	2280	2350	2470	2830	1970	1690	6890	3140	1270	713	1070
5	445	3340	2380	2790	2860	1940	2030	8060	3230	1550	1070	1030
6	936	3450	2310	2500	3000	1690	1870	7370	2950	1560	1110	1310
7	783	3160	2240	2470	3300	1850	1750	6690	2980	1380	1160	1460
8	1440	2370	2150	2460	3000	1760	2050	6960	3550	1500	1190	1400
9	1010	2190	2210	2500	2700	1930	1640	8170	3550	890	1280	1540
10	753	2180	2080	2500	2600	2190	1630	8790	3390	723	1640	879
11	868	2150	2080	2600	2500	2280	2050	8620	2710	947	1370	594
12	1300	2040	2110	2660	2500	2220	2460	8060	1880	1500	1520	713
13	1090	2210	2150	2690	2400	2140	2310	7580	1270	1470	1280	1510
14	1150	2180	2110	2600	2300	2110	2260	6520	1400	1380	1170	1510
15	1250	2090	2090	2500	2290	2120	2160	6140	1730	1500	1130	1480
16	1310	2140	2690	2500	2160	2080	2680	6470	1870	1250	1560	1490
17	1490	2190	3160	2500	2070	1880	2950	6050	1780	1340	1430	868
18	1400	2220	2780	2600	1990	1840	2600	4860	1850	983	1590	528
19	1440	2180	2600	2800	1940	2110	2370	5100	1670	1630	1410	959
20	1470	2160	2530	3500	1910	2410	2310	4840	1850	1630	1490	1480
21	1600	2160	2500	3300	1880	2010	3360	4610	1830	1550	1350	1570
22	1530	2180	2520	3000	1910	1850	3710	3830	1790	1410	1470	1540
23	1130	2190	2520	2700	2050	1990	4300	4190	1800	814	1410	1600
24	528	2310	2530	2300	2240	1970	3870	4210	1800	694	1440	723
25	1500	2260	2710	2200	2150	1930	4410	4190	1590	846	1430	603
26	1620	2140	3300	2400	2000	1780	4520	4100	1570	1170	1470	773
27	1750	2080	3000	2700	1910	1660	4630	3790	1550	1280	1440	1560
28	1840	2010	2840	2300	1890	1790	4610	3390	1540	1300	1070	1130
29	1490	2050	2790	1900	---	2070	4650	2950	1530	1240	1170	1110
30	1210	2380	2650	1750	---	2030	4770	2910	1500	913	1480	1120
31	1190	---	2530	1720	---	1760	---	3050	---	666	1490	---
TOTAL	40507	66940	77190	78460	64890	61240	84710	177670	65560	38296	39459	35910
MEAN	1307	2231	2490	2531	2318	1975	2824	5731	2185	1235	1273	1197
MAX	2410	3450	3300	3500	3300	2410	4770	8790	3550	1630	1640	1600
MIN	445	1470	2080	1720	1880	1660	1630	2910	1270	666	648	528
CAL YR 1982	TOTAL	803092	MEAN	2200	MAX	6610	MIN	445				
WTR YR 1983	TOTAL	830832	MEAN	2276	MAX	8790	MIN	445				



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

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04268000 RAQUETTE RIVER AT RAYMONDVILLE, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1957, 1960-61, 1969-72, 1979 to current year.

CHEMICAL DATA: 1955, 57 (a), 1960-61 (e), 1969 (a), 1970 (d), 1971 (b), 1972 (a), 1979-80 (d), 1981-82 (c), 1983 (b).

MINOR ELEMENTS DATA: 1969 (a), 1970, 1979 (b), 1980 (d), 1981-83 (b).

PESTICIDE DATA: 1970 (a).

ORGANIC DATA: OC--1979-80 (d), 1981 (c).

NUTRIENT DATA: 1955, 57 (a), 1960-61 (e), 1969 (a), 1970 (d), 1971 (b), 1972 (a), 1979-80 (d), 1981-82 (c), 1983 (b).

BIOLOGICAL DATA:

Bacteria--1969-71 (a), 1979-80 (d), 1981-82 (c), 1983 (b).

Phytoplankton--1979-80 (c), 1981 (b).

Periphyton--1979-80 (b).

SEDIMENT DATA: 1979 (c), 1980 (d), 1981-82 (c), 1983 (b).

REVISIONS.--Records of specific conductance, April to September 1979, and water temperatures, October 1959 to September 1961, April to September 1979, previously published are unreliable and should not be used.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 08...	1230	2420	86	6.6	7.5	3.0	760	12.0	100	540
MAR 14...	1045	2120	76	7.0	1.5	1.3	755	14.3	103	55
JUN 09...	1000	3530	53	6.9	14.9	1.6	770	10.6	104	46
AUG 23...	1015	1680	48	6.5	21.5	1.4	765	7.8	88	58

DATE	STREP- TOCOCOI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 08...	160	47	12	12	4.2	2.2	.8	35	12	2.9
MAR 14...	30	31	7	8.0	2.7	2.4	.5	24	12	2.9
JUN 09...	K6	16	6	4.6	1.0	1.7	.5	10	7.0	1.6
AUG 23...	120	19	6	5.2	1.4	1.8	.4	13	10	1.9

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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 08...	.10	5.6	82	61	.15	.020	.40	.030	<.010	<.010
MAR 14...	<.10	5.8	50	49	.26	.030	<.10	.020	<.010	<.010
JUN 09...	<.10	4.5	33	27	.21	.010	.20	<.010	.010	<.010
AUG 23...	.10	4.0	40	33	.15	.010	.30	.040	.010	<.010

K Results based on colony count outside the acceptable range (non-ideal colony count).

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04268000 RAQUETTE RIVER AT RAYMONDVILLE, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 08...	100	1	19	<1	2	<1	<3	1	220	<1
MAR 14...	50	1	15	<1	<1	<1	<3	1	110	1
JUN 09...	<10	<1	34	<1	<1	<1	<3	4	81	2
AUG 23...	<10	2	25	<1	<1	<1	<3	2	160	2

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 08...	<4	11	<.1	<10	<1	<1	<1	39	<6.0	7
MAR 14...	<4	11	<.1	<10	1	<1	1	26	<6.0	6
JUN 09...	<4	15	<.1	<10	1	<1	<1	20	<6.0	10
AUG 23...	<4	18	<.1	<10	1	<1	<1	23	<6.0	10

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SAM- PLING DEPTH (FEET)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
APR 05...	0930	237	1.0	3.0	53	6.6	15.0	10.7	105
05...	0931	237	2.0	3.0	53	6.4	15.0	10.8	106
05...	0945	194	1.0	3.5	53	7.0	15.0	10.4	102
05...	0946	194	2.5	3.5	53	7.4	15.0	10.9	107
05...	1000	151	1.0	4.0	52	7.3	15.0	10.1	99
05...	1001	151	3.0	4.0	52	7.1	15.0	10.7	105
05...	1015	108	1.0	2.0	53	7.0	15.0	10.4	102
05...	1030	65	1.0	4.0	60	6.8	15.0	11.1	109
05...	1031	65	3.0	4.0	60	6.7	15.0	10.7	105

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 08...	1230	2420	11	72	JUN 09...	1000	3530	2	19
MAR 14...	1045	2120	1	5.7	AUG 23...	1015	1680	2	9.1

04269000 ST. REGIS RIVER AT BRASHER CENTER, NY  
(National stream-quality accounting network station)

LOCATION.--Lat 44°51'49", long 74°46'45", St. Lawrence County, Hydrologic Unit 04150306, on left bank 600 ft upstream from highway bridge at Brasher Center, and 6.5 mi downstream from West Branch. Water-quality sampling site at discharge station.

DRAINAGE AREA.--612 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to current year. Monthly discharge only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 1387: 1910-16, 1917(M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 217.23 ft National Geodetic Vertical Datum of 1929. Prior to June 24, 1916, nonrecording gage at site 600 ft downstream at different datum. June 24, 1916 to Nov. 10, 1917, and Jan. 1, 1919 to Aug. 13, 1920, nonrecording gage at present site and datum.

REMARKS.--Records good except those for period of no gage height record (Oct. 29 to Dec. 20) and those for winter periods, which are poor. Slight diurnal fluctuation caused by powerplant operations above station.

AVERAGE DISCHARGE.--73 years, 1,045 ft<sup>3</sup>/s, 23.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft<sup>3</sup>/s Apr. 6, 1937, gage height, 12.82 ft; maximum gage height recorded, about 15.3 ft Apr. 6, 1937 (ice jam); minimum discharge observed, about 34 ft<sup>3</sup>/s Aug. 8, 1917, gage height, 5.25 ft; minimum daily, 37 ft<sup>3</sup>/s Aug. 8, 1917.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,050 ft<sup>3</sup>/s April 26, gage height 8.99 ft, no peak discharge above base of 5,600 ft<sup>3</sup>/s; minimum, 196 ft<sup>3</sup>/s July 29, gage height 5.81 ft; minimum daily, 211 ft<sup>3</sup>/s July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	672	410	1400	1130	530	879	763	2710	1420	605	520	296
2	632	600	1600	950	591	848	743	2680	1330	536	1460	296
3	619	1000	1500	840	1280	778	769	2770	1140	598	1490	289
4	611	1700	1300	760	2170	754	919	2820	1000	667	1070	268
5	488	4000	1200	673	1570	682	1300	2810	960	634	765	255
6	440	2800	1200	807	1100	706	1440	2470	1020	639	582	242
7	423	2300	1300	747	940	859	1310	2120	1210	620	725	242
8	767	2000	1400	640	820	1360	1340	1890	1250	551	1060	275
9	1010	1700	1200	540	720	1870	1370	2660	1070	519	2730	275
10	943	1300	1100	560	680	2160	1420	3250	849	471	2790	268
11	795	1100	920	947	660	2200	2410	3590	821	434	1820	275
12	713	1200	720	1300	640	1910	2710	3330	648	401	1330	275
13	570	1300	600	930	620	1550	2690	3170	595	368	1120	275
14	538	1500	640	760	610	1380	2260	3050	504	344	986	255
15	552	1400	800	600	600	1250	2110	2720	440	330	857	242
16	668	1200	1200	580	600	1240	3090	2510	542	314	691	230
17	810	1100	1500	520	590	1170	3320	2290	398	297	600	230
18	813	1000	1800	490	600	1190	2290	2010	783	289	533	268
19	709	900	1500	480	620	1600	1970	1720	854	274	479	255
20	669	760	1400	460	620	2050	1630	1560	722	263	453	255
21	570	700	1300	460	640	1980	1410	1460	623	258	411	275
22	551	800	1300	500	680	1670	1370	1370	556	247	386	590
23	502	930	1200	540	780	1330	1300	1270	508	247	363	896
24	472	1100	1300	600	1100	1150	1400	1220	450	243	340	797
25	462	1600	1600	680	1000	1070	3400	1150	410	239	318	600
26	420	1400	2500	720	900	975	4920	1110	407	229	296	487
27	405	1200	2160	680	859	868	4400	1230	570	226	282	427
28	390	1100	1910	620	823	847	3550	1220	912	215	289	378
29	400	1000	1720	600	---	899	2920	1110	946	211	275	347
30	400	1200	1440	560	---	819	2550	1040	787	236	268	318
31	400	---	1250	540	---	777	---	1350	---	292	268	---
TOTAL	18414	40300	41960	21214	23343	38821	63074	65660	23725	11797	25557	10381
MEAN	594	1343	1354	684	834	1252	2102	2118	791	381	824	346
MAX	1010	4000	2500	1300	2170	2200	4920	3590	1420	667	2790	896
MIN	390	410	600	460	530	682	743	1040	398	211	268	230
CFSM	.97	2.19	2.21	1.12	1.36	2.05	3.44	3.46	1.29	.62	1.35	.57
IN.	1.12	2.45	2.55	1.29	1.42	2.36	3.83	3.99	1.44	.72	1.55	.63

CAL YR 1982 TOTAL 360989 MEAN 989 MAX 7630 MIN 196 CFSM 1.62 IN 21.94  
WTR YR 1983 TOTAL 384246 MEAN 1053 MAX 4920 MIN 211 CFSM 1.72 IN 23.36

NOTE.--No gage height record Oct. 29 to Dec. 20.

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04269000 ST. REGIS RIVER AT BRASHER CENTER, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1960, 1970-72, 1974 to current year.

CHEMICAL DATA: 1955 (a), 1960 (b), 1970-72 (a), 1975-81 (d), 1982 (c), 1983 (b).

MINOR ELEMENTS DATA: 1975, 1977-79 (b), 1980 (c), 1981-83 (b).

ORGANIC DATA: OC--1974 (b), 1978-81 (d).

NUTRIENT DATA: 1970-71 (a), 1975-81 (d), 1982 (c), 1983 (b).

## BIOLOGICAL DATA:

Bacteria--1975-81 (d), 1982 (c), 1983 (b).

Phytoplankton--1975-77 (d), 1978-81 (c).

Periphyton--1975-80 (b).

SEDIMENT DATA: 1975 (d), 1976-77 (c), 1978-81 (d), 1982 (c), 1983 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: September 1974 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum daily, 29.0°C Aug. 4, 1975; minimum, freezing point on many days during winter periods.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 08...	1000	2280	44	6.6	5.5	2.0	760	12.0	95	130
MAR 16...	1045	1240	71	6.9	.5	2.6	765	14.6	101	K50
JUN 06...	0915	1020	76	7.1	16.0	1.5	760	9.5	97	93
AUG 16...	1215	670	54	7.2	22.5	1.3	765	8.1	93	73

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 08...	190	27	12	7.1	2.2	1.2	.5	15	13	1.7
MAR 16...	250	28	5	7.2	2.5	1.7	.4	23	12	1.8
JUN 06...	80	31	9	8.2	2.5	1.7	.4	22	12	1.9
AUG 16...	160	24	9	6.5	1.8	1.4	.4	15	12	2.1

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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 08...	<.10	7.2	62	42	.19	.020	.50	.030	.020	<.010
MAR 16...	<.10	6.4	51	46	.25	.020	.30	.030	.020	.010
JUN 06...	<.10	5.4	53	46	.11	<.010	.30	.010	.010	<.010
AUG 16...	<.10	6.2	53	40	<.10	<.010	.10	.050	.020	<.010

K Results based on colony count outside the acceptable range (non-ideal colony count).



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

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04269000 ST. REGIS RIVER AT BRASHER CENTER, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 08...	200	1	21	<1	<1	<1	<3	1	320	1
MAR 16...	50	1	16	<1	<1	<1	<3	1	120	3
JUN 06...	<10	<1	20	1	1	<1	3	2	270	6
AUG 16...	20	1	18	<1	<1	<1	<3	<1	380	5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 08...	<4	14	<.1	<10	<1	<1	<1	22	<6.0	8
MAR 16...	<4	6	<.1	<10	1	<1	<1	21	<6.0	7
JUN 06...	4	15	<.1	10	2	<1	<1	26	6.0	11
AUG 16...	<4	23	<.1	<10	<1	<1	<1	23	<6.0	11

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SAM- PLING DEPTH (FEET)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
JUN									
06...	0915	180	1.0	4.5	76	7.1	16.0	9.5	97
06...	0916	180	3.5	4.5	76	6.9	16.0	9.7	99
06...	0920	145	1.0	6.5	76	7.3	16.5	9.7	100
06...	0921	145	5.5	6.5	76	7.0	16.5	9.9	102
06...	0925	110	1.0	7.0	76	7.2	16.0	9.4	95
06...	0926	110	6.0	7.0	76	6.9	16.0	9.9	101
06...	0930	75	1.0	5.5	76	7.3	16.0	9.4	95
06...	0931	75	4.5	5.5	76	7.0	16.0	9.4	95
06...	0935	40	1.0	4.5	76	7.2	16.0	9.4	95
06...	0936	40	3.5	4.5	76	7.0	16.0	9.4	95

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 08...	1000	2280	4	25	JUN 06...	0915	1020	3	8.3
MAR 16...	1045	1240	7	23	AUG 16...	1215	670	2	3.6

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

## 04270200 LITTLE SALMON RIVER AT BOMBAY, NY

LOCATION.--Lat 44°56'24", long 74°33'24", Franklin County, Hydrologic Unit 04150307, on right bank 50 ft downstream from bridge on road to Fort Covington Center, 0.5 mi east of village of Bombay, and 7.2 mi upstream from mouth.

DRAINAGE AREA.--92.2 mi<sup>2</sup>.

PERIOD OF RECORD.--August to November 1957, July 1958 to current year. Occasional low-flow measurements, water years 1954-55, 1957.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 173.91 ft National Geodetic Vertical Datum of 1929. August to November 1957, at site 100 ft upstream at datum 0.72 ft higher.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--25 years (1959-83), 119 ft<sup>3</sup>/s, 17.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,250 ft<sup>3</sup>/s Apr. 4, 1974, gage height, 12.90 ft; minimum, 8.0 ft<sup>3</sup>/s Aug. 6, 7, 1965, gage height, 1.52 ft; minimum gage height, 0.85 ft Sept. 2, 1957, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 5	0930	1,220	8.06	Apr. 25	1200	1,300	7.81
Dec. 16	2200	1,470	9.00	May 11	0330	1,170	7.36
Feb. 3	2100	*1,990	*9.83				

Minimum discharge, 14 ft<sup>3</sup>/s Sept. 5, 6, gage height, 1.45 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	29	283	100	70	96	117	259	163	38	47	19
2	42	52	202	90	90	100	108	262	118	39	78	17
3	41	92	199	78	600	110	115	339	89	36	48	16
4	35	351	247	90	1260	100	162	347	77	33	34	15
5	29	981	226	66	500	100	209	296	87	31	30	15
6	27	387	217	64	210	120	217	227	80	41	29	15
7	22	218	209	62	120	170	168	182	124	37	80	16
8	77	149	140	60	66	309	218	162	103	31	73	18
9	121	113	120	56	58	352	196	517	76	34	339	18
10	72	92	110	54	56	345	168	766	64	38	173	17
11	51	79	110	130	56	367	444	876	58	31	92	19
12	42	88	100	300	56	303	400	440	53	29	81	23
13	39	202	90	110	56	180	305	325	48	27	77	22
14	40	154	94	70	58	168	194	293	44	24	58	17
15	41	107	130	62	58	167	188	257	41	24	44	16
16	44	89	838	60	58	179	466	266	39	23	37	15
17	51	82	884	60	60	173	620	249	38	22	32	19
18	57	74	600	60	58	157	293	196	46	21	31	23
19	50	68	400	64	58	276	217	159	44	20	29	24
20	43	66	300	68	56	360	202	148	37	27	28	19
21	38	66	240	72	68	225	235	152	34	28	28	20
22	36	79	200	74	90	157	327	144	32	23	31	81
23	34	107	180	78	140	134	583	136	30	21	29	58
24	32	188	200	82	170	112	386	130	27	19	26	41
25	30	207	400	86	140	96	1080	120	29	18	23	30
26	29	148	700	82	130	90	988	111	36	17	22	25
27	28	126	400	80	120	89	489	186	81	16	20	23
28	27	108	250	78	100	140	300	168	90	15	21	22
29	27	155	190	74	---	200	235	122	57	16	20	20
30	27	416	140	72	---	126	199	105	44	29	19	19
31	27	---	110	70	---	118	---	180	---	37	19	---
TOTAL	1298	5073	8509	2552	4562	5619	9829	8120	1889	845	1698	702
MEAN	41.9	169	274	82.3	163	181	328	262	63.0	27.3	54.8	23.4
MAX	121	981	884	300	1260	367	1080	876	163	41	339	81
MIN	22	29	90	54	56	89	108	105	27	15	19	15
CFSM	.45	1.83	2.97	.89	1.77	1.96	3.56	2.84	.68	.30	.59	.25
IN.	.52	2.05	3.43	1.03	1.84	2.27	3.97	3.28	.76	.34	.69	.28
CAL YR 1982	TOTAL	34243	MEAN	93.8	MAX	981	MIN	11	CFSM	1.02	IN	13.82
WTR YR 1983	TOTAL	50696	MEAN	139	MAX	1260	MIN	15	CFSM	1.51	IN	20.45

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

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04270510 CHATEAUGAY RIVER BELOW CHATEAUGAY, NY

LOCATION.--Lat 44°57'49", long 74°07'53", Franklin County, Hydrologic Unit 04150307, on left bank 10 ft downstream from bridge on Sam Cook Road, 0.2 mi downstream from Marble River, 2.4 mi upstream from international boundary, and 4.1 mi northeast of Chateaugay.

DRAINAGE AREA.--151 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 411.33 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated at Forge Dam on Upper and Lower Chateaugay Lakes.

AVERAGE DISCHARGE.--17 years (1967-83), 250 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft<sup>3</sup>/s Apr. 4, 1974, gage height, 7.33 ft, from rating curve extended above 1,600 ft<sup>3</sup>/s; maximum gage height, 10.99 ft Feb. 11, 1966 (ice jam); minimum discharge, 14 ft<sup>3</sup>/s Sept. 5, 6, 1982, gage height, 2.32 ft, result of regulation; minimum daily, 37 ft<sup>3</sup>/s Aug. 23, 26, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,480 ft<sup>3</sup>/s Apr. 25, gage height, 5.36 ft; maximum gage height, 7.52 ft Feb. 3 (ice jam); minimum discharge, 28 ft<sup>3</sup>/s Sept. 30, gage height, 2.48 ft; minimum daily discharge, 74 ft<sup>3</sup>/s Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	110	222	216	180	150	252	716	260	172	115	90
2	99	130	208	213	250	135	234	738	234	208	126	88
3	99	180	230	211	1000	128	283	738	213	190	124	88
4	96	280	230	200	310	126	308	761	219	184	124	83
5	94	500	216	230	210	126	325	695	224	184	122	81
6	92	600	224	190	200	128	267	681	234	182	126	81
7	92	620	211	190	190	146	263	646	248	177	130	88
8	141	450	200	190	180	165	299	653	230	137	144	83
9	148	370	192	200	180	227	267	776	211	141	200	83
10	180	350	200	230	180	203	316	853	200	135	195	83
11	180	342	200	300	180	195	400	886	195	99	205	90
12	172	342	200	210	180	172	600	746	192	103	213	83
13	174	320	200	190	190	167	520	573	179	101	205	81
14	184	267	210	180	190	169	500	497	160	92	200	79
15	190	237	210	180	190	167	560	497	99	86	197	79
16	200	219	430	180	180	179	700	531	105	90	200	79
17	210	216	240	170	180	182	840	475	99	90	187	88
18	210	203	220	170	180	203	600	444	105	88	177	85
19	200	182	210	170	170	356	573	423	103	90	169	79
20	190	182	200	160	170	586	605	403	103	96	146	74
21	170	184	200	150	170	508	612	342	103	92	139	113
22	160	184	260	160	170	481	716	299	101	92	124	99
23	140	192	500	170	170	459	738	287	99	90	122	83
24	130	203	580	200	170	433	830	256	99	88	105	81
25	120	192	270	200	160	403	1250	224	99	88	101	79
26	110	187	260	200	160	393	1040	237	120	86	96	79
27	98	182	250	190	160	365	791	241	172	86	96	79
28	92	241	240	180	150	342	724	230	160	86	92	79
29	90	222	230	180	---	333	738	224	155	88	88	78
30	90	271	220	180	---	260	738	256	155	94	90	78
31	90	---	216	180	---	260	---	279	---	90	90	---
TOTAL	4339	8158	7679	5970	6000	8147	16889	15607	4876	3625	4448	2513
MEAN	140	272	248	193	214	263	563	503	163	117	143	83.8
MAX	210	620	580	300	1000	586	1250	886	260	208	213	113
MIN	90	110	192	150	150	126	234	224	99	86	88	74
CAL YR 1982	TOTAL	80939	MEAN 222	MAX 1060	MIN 76							
WTR YR 1983	TOTAL	88251	MEAN 242	MAX 1250	MIN 74							

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04273500 SARANAC RIVER AT PLATTSBURGH, NY

LOCATION.--Lat 44°40'54", long 73°28'18", Clinton County, Hydrologic Unit 02010006, on right bank at Plattsburgh, 600 ft downstream from Imperial Paper and Color Corp. dam, 3.0 mi upstream from mouth, and 5.5 mi downstream from Mead Brook.

DRAINAGE AREA.--608 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1903 to September 1930, October 1943 to current year. Published as "near Plattsburgh," 1903-30.

REVISED RECORDS.--WSP 345: Drainage area. WSP 384: 1909-10 (monthly discharge only). WSP 1387: 1907-8. WSP 1437: 1908 (minimum daily only).

GAGE.--Water-stage recorder. Datum of gage is 155.74 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 12, 1919, nonrecording gage, and Nov. 12, 1919 to Sept. 30, 1930, water-stage recorder, at site 1.5 mi upstream at different datum.

REMARKS.--Records excellent except those for January, which are good. Considerable diurnal fluctuation caused by power and industrial operations. Slight regulation by storage in Upper and Lower Saranac Lakes and elsewhere. During year, city of Plattsburgh diverted an average of 6.68 ft<sup>3</sup>/s from Saranac River and Mead and West Brooks, tributaries above station, for municipal supply. About 1 ft<sup>3</sup>/s diverted from Great Chazy River basin into Saranac River for water supply of State Institutions at Dannemora.

AVERAGE DISCHARGE.--67 years, 833 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft<sup>3</sup>/s Apr. 8, 1928, from computation of flow over dam and through waste gates and powerplant; minimum daily, 3.6 ft<sup>3</sup>/s June 26, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,220 ft<sup>3</sup>/s Apr. 25, gage height, 6.95 ft; minimum, 34 ft<sup>3</sup>/s July 20, gage height, 1.75 ft; minimum daily discharge, 92 ft<sup>3</sup>/s July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	495	435	1020	757	510	500	525	2830	1510	660	320	366
2	505	421	898	738	495	520	582	2940	1350	696	632	327
3	561	551	844	490	769	525	593	3180	1240	610	500	545
4	500	535	814	460	1270	525	649	3330	1180	462	476	510
5	309	1720	795	500	760	540	684	2890	1260	481	354	495
6	421	1830	808	525	680	551	726	2540	1200	421	435	457
7	383	1490	851	632	600	593	769	2300	1260	448	495	448
8	540	1300	1000	593	620	738	859	2090	1160	500	395	387
9	836	1180	979	530	640	971	1010	2430	1040	643	1090	391
10	690	971	808	457	660	1140	996	2330	930	430	1040	342
11	604	930	836	678	620	1380	1150	2280	795	236	808	288
12	520	867	751	726	580	1140	1540	2170	655	430	979	408
13	535	922	649	577	580	1060	1520	2070	515	520	930	378
14	505	946	744	540	560	971	1270	2000	535	530	859	335
15	505	914	566	520	540	1030	1270	1960	525	316	801	316
16	545	906	744	490	520	763	1270	2010	495	305	649	354
17	672	836	874	470	500	582	1870	1890	435	327	621	285
18	684	821	890	450	500	604	1690	1740	782	316	577	295
19	643	751	738	560	520	714	1280	1590	1030	114	535	278
20	678	732	708	680	520	1330	1270	1540	1460	108	218	278
21	795	726	678	540	520	1120	1350	1490	1200	92	412	203
22	714	757	655	490	520	874	1240	1400	996	285	476	370
23	776	808	626	520	520	782	1350	1270	828	285	370	408
24	643	898	690	620	520	726	1490	1300	643	313	395	486
25	417	954	751	640	520	672	3100	1220	495	144	298	515
26	495	906	1050	520	500	660	3290	1230	467	176	313	457
27	387	844	1130	460	500	593	2740	1490	666	192	395	448
28	457	769	1000	470	500	626	2640	1450	874	187	417	435
29	383	782	1010	480	---	599	2750	1410	836	174	435	370
30	412	836	922	490	---	556	2740	1330	776	291	444	268
31	378	---	757	525	---	593	---	1470	---	412	346	---
TOTAL	16988	27338	25586	17128	16544	23978	44213	61170	27138	11104	17015	11443
MEAN	548	911	825	553	591	773	1474	1973	905	358	549	381
MAX	836	1830	1130	757	1270	1380	3290	3330	1510	696	1090	545
MIN	309	421	566	450	495	500	525	1220	435	92	218	203
CAL YR 1982	TOTAL	290092	MEAN	795	MAX	7770	MIN	114				
WTR YR 1983	TOTAL	299645	MEAN	821	MAX	3330	MIN	92				



## 04275000 EAST BRANCH AUSABLE RIVER AT AU SABLE FORKS, NY

LOCATION.--Lat 44°26'20", long 73°40'55", Essex County, Hydrologic Unit 02010004, on left bank 700 ft upstream from bridge on Burt Street in Au Sable Forks, and 0.5 mi upstream from confluence with West Branch.

DRAINAGE AREA.--198 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1924 to current year.

REVISED RECORDS.--WSP 759: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 545.37 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 21, 1938, nonrecording gage at lower highway bridge in Au Sable Forks, 400 ft upstream from confluence with West Branch at datum 3.54 ft lower.

REMARKS.--Records good except those during period of fragmentary gage-height record (May 8 to June 7) and those for winter periods, which are poor. Occasional regulation of storage in Upper and Lower Ausable Lakes and occasional small diurnal fluctuation, cause unknown.

AVERAGE DISCHARGE.--59 years, 311 ft<sup>3</sup>/s, 21.33 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,100 ft<sup>3</sup>/s Sept. 22, 1938, gage height, 12.91 ft, from rating curve extended above 5,800 ft<sup>3</sup>/s on basis of velocity-area studies; minimum observed, 20 ft<sup>3</sup>/s Aug. 11, 14, 28, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 5	0700	4,140	6.18	May 1	0500	*9,720	9.12
Feb. 3	--	Unknown	a*11.63				

a Ice jam.

Minimum discharge, 41 ft<sup>3</sup>/s Sept. 15, 16, 17, gage height 0.97 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	72	206	202	220	149	157	6070	1340	123	160	86
2	160	122	206	171	210	149	152	2980	849	113	332	69
3	125	238	209	155	1200	130	168	3150	610	108	262	60
4	105	212	225	120	1030	101	212	2250	475	97	171	55
5	86	2680	248	120	260	108	252	1250	599	89	128	52
6	77	1100	241	245	210	110	238	869	610	135	176	48
7	75	565	266	218	180	125	296	726	703	128	395	47
8	155	365	140	202	180	185	780	786	703	101	221	48
9	193	273	120	120	170	176	799	1710	378	91	273	45
10	179	218	110	110	160	176	631	998	316	82	228	43
11	157	188	110	292	160	241	862	780	277	76	144	52
12	132	173	120	418	160	196	664	664	238	74	642	54
13	94	352	130	248	150	168	506	621	209	69	721	46
14	74	356	150	190	150	149	631	970	185	65	365	44
15	74	273	180	160	150	173	744	805	168	63	221	43
16	110	209	350	150	140	193	1140	942	157	63	157	43
17	108	185	220	140	140	228	998	675	300	58	125	43
18	122	160	200	140	140	262	750	506	470	55	106	45
19	117	149	180	140	140	610	506	413	565	52	95	50
20	115	142	160	140	130	1460	470	378	281	50	86	48
21	117	137	140	150	130	732	432	587	209	48	77	51
22	120	152	130	160	130	532	422	470	168	60	68	446
23	103	248	130	180	130	361	593	418	144	59	79	231
24	96	413	130	230	130	270	1050	817	123	63	84	147
25	90	391	150	480	120	221	3400	786	113	87	74	113
26	84	273	506	356	120	209	2600	511	119	71	63	95
27	81	206	432	300	120	190	1560	1520	285	60	60	82
28	77	171	316	270	168	185	2530	1880	259	55	63	72
29	74	193	328	250	---	199	3150	998	185	54	65	66
30	71	221	270	240	---	149	2530	709	144	58	72	63
31	69	---	202	230	---	155	---	1680	---	63	74	---
TOTAL	3425	10437	6505	6527	6328	8292	29223	37919	11182	2370	5787	2387
MEAN	110	348	210	211	226	267	974	1223	373	76.5	187	79.6
MAX	193	2680	506	480	1200	1460	3400	6070	1340	135	721	446
MIN	69	72	110	110	120	101	152	378	113	48	60	43
CFSM	.56	1.76	1.06	1.07	1.14	1.35	4.92	6.18	1.88	.39	.94	.40
IN.	.64	1.96	1.22	1.23	1.19	1.56	5.49	7.12	2.10	.45	1.09	.45
CAL YR 1982	TOTAL	105404	MEAN	289	MAX	5210	MIN	41	CFSM	1.46	IN	19.80
WTR YR 1983	TOTAL	130382	MEAN	357	MAX	6070	MIN	43	CFSM	1.80	IN	24.50

NOTE.--Fragmentary gage-height record May 8 to June 7.

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04276895 WEST BROOK AT LAKE GEORGE, NEW YORK

LOCATION.--Lat 43°25'02", long 73°42'44", Warren County, Hydrologic Unit 02010001, on right bank 0.2 mi upstream of mouth.

DRAINAGE AREA.--8.38 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1980 to September 1983 (discontinued).

GAGE.--Water stage recorder. Altitude of gage is 330 ft, from topographic map.

REMARKS.--Records fair. Effluent from Village of Lake George sewage treatment plant discharged to sand and gravel aquifer adjacent to West Brook, 0.6 mi upstream from gage. Principal source of effluent is diversions from Lake George for municipal supply.

COOPERATION.--Figures of effluent discharge supplied by Village of Lake George, New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 400 ft<sup>3</sup>/s June 16, 1983, gage height 3.38 ft, from rating curve extended above 100 ft<sup>3</sup>/s; minimum, 4.5 ft<sup>3</sup>/s Jan. 4, 1983, gage height, 0.53 ft; minimum gage height, 0.45 ft many days in 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 400 ft<sup>3</sup>/s June 16, gage height 3.38 ft, only peak discharge above base of 150 ft<sup>3</sup>/s; minimum 4.5 ft<sup>3</sup>/s Jan. 4, gage height 0.53 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	5.5	5.9	5.9	7.1	8.9	20	39	39	12	12	8.4
2	5.5	5.2	5.9	5.9	7.5	8.9	22	77	32	12	10	8.0
3	5.5	5.2	5.9	5.9	61	10	25	91	28	12	9.4	7.5
4	5.5	5.9	5.9	4.8	40	9.9	29	67	32	19	8.4	7.5
5	5.2	8.9	5.9	5.2	23	9.9	31	45	29	16	8.4	7.5
6	5.2	5.9	5.9	5.5	17	10	35	36	29	13	8.4	7.1
7	6.3	5.2	5.9	5.2	16	19	40	32	29	12	8.4	7.1
8	8.0	5.2	5.9	5.2	15	20	52	32	25	11	9.4	7.1
9	5.9	4.8	5.9	4.8	13	23	42	42	23	12	10	7.1
10	5.5	4.8	5.2	4.5	11	28	60	34	23	10	8.4	7.5
11	5.2	4.8	5.2	16	10	35	80	29	22	10	13	7.1
12	5.2	4.8	5.2	8.9	10	27	36	27	20	10	22	6.7
13	5.5	6.3	5.2	5.9	10	23	29	26	20	10	13	6.7
14	5.5	5.5	5.2	5.5	10	23	26	25	19	10	9.9	6.7
15	5.2	5.2	5.2	5.5	10	25	25	25	19	10	8.9	6.7
16	5.2	5.2	7.5	5.5	11	25	29	24	42	10	8.4	6.7
17	5.2	5.2	7.1	5.2	12	26	38	23	23	9.9	8.4	7.5
18	5.2	5.2	5.9	5.2	12	27	35	22	20	9.9	8.9	7.1
19	5.2	5.2	5.5	4.8	10	70	32	21	18	9.4	8.4	7.1
20	5.2	5.2	5.5	5.9	9.9	67	37	24	17	9.4	8.0	7.1
21	5.2	5.2	5.5	5.9	9.4	49	35	25	16	11	8.0	11
22	5.2	5.5	5.2	5.9	9.4	48	35	23	15	9.9	9.4	13
23	5.2	6.7	5.2	8.9	8.9	33	38	23	15	8.9	8.4	8.0
24	5.2	6.3	5.9	20	8.9	27	59	22	14	9.4	8.0	7.5
25	5.2	5.9	7.1	15	8.9	23	106	21	14	9.4	7.5	7.5
26	5.2	5.9	9.4	10	8.9	22	65	24	14	8.9	7.5	7.5
27	5.2	5.5	7.1	8.4	8.9	20	46	76	14	8.9	7.5	7.1
28	5.2	5.2	7.1	7.5	8.9	23	38	46	14	8.4	7.5	7.1
29	5.2	5.5	8.0	7.5	---	24	33	35	13	8.4	7.1	7.1
30	5.2	6.7	7.1	7.5	---	22	35	57	13	8.9	12	7.1
31	5.2	---	6.3	7.5	---	20	---	49	---	8.9	10	---
TOTAL	167.9	167.6	189.7	225.4	387.7	806.6	1213	1142	651	328.6	294.6	227.1
MEAN	5.42	5.59	6.12	7.27	13.8	26.0	40.4	36.8	21.7	10.6	9.50	7.57
MAX	8.0	8.9	9.4	20	61	70	106	91	42	19	22	13
MIN	5.2	4.8	5.2	4.5	7.1	8.9	20	21	13	8.4	7.1	6.7
#	.64	.45	.43	.49	.63	.78	1.1	1.4	1.5	1.7	1.7	1.1

CAL YR 1982 TOTAL 5354.8 MEAN 14.7 MAX 141 MIN 4.8 # .91  
WTR YR 1983 TOTAL 5801.2 MEAN 15.9 MAX 106 MIN 4.5 # .96

# Discharge, in cubic feet per second, from sewage-treatment plant upstream from gage.

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

193

04276920 ENGLISH BROOK AT LAKE GEORGE, NY

LOCATION.--Lat 43°25'54", long 73°42'26", Warren County, Hydrologic Unit 0201001, on left bank 400 ft upstream from mouth and 0.1 mi downstream from culvert on State Highway 9N.

DRAINAGE AREA.--7.84 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1980 to September 1983 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 330 ft, from topographic map.

REMARKS.--Records fair, except during periods affected by backwater from ice, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 318 ft<sup>3</sup>/s Apr. 25, 1983, gage height, 2.92 ft, from rating curve extended above 110 ft<sup>3</sup>/s; maximum gage height, 4.88 ft Feb. 11, 1981 (ice jam); minimum discharge, 0.75 ft<sup>3</sup>/s, Aug. 18, 19, 1980, gage height, 0.36 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	0930	251	2.47	Apr. 25	1245	*318	2.92
Feb. 11	1345	Unknown	*a3.92	May 3	0215	164	2.38
Mar. 19	1700	171	2.41	May 27	0500	191	2.49
Apr. 10	2245	183	2.46				

a Ice jam.

Minimum discharge, 0.93 ft<sup>3</sup>/s Oct. 4, 5, 6, 7, gage height, 0.51 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	2.2	3.6	6.2	7.3	8.2	20	47	45	4.5	12	5.4
2	1.1	2.4	3.3	5.6	7.9	8.8	20	93	31	4.0	6.2	3.6
3	1.0	2.2	2.9	5.1	151	10	27	108	25	3.6	4.0	2.9
4	1.0	2.7	2.7	4.6	83	9.8	30	80	30	7.9	3.6	2.5
5	1.0	13	2.5	4.3	35	9.8	35	50	26	7.6	3.6	2.5
6	.93	4.0	3.1	4.2	24	9.8	36	38	32	5.9	3.8	2.2
7	1.2	2.5	2.9	4.0	20	25	43	30	43	4.9	3.6	2.0
8	4.9	2.0	2.5	4.0	17	26	66	30	27	4.2	4.2	1.7
9	2.7	1.9	2.3	4.0	15	32	51	51	20	3.8	12	1.7
10	2.5	1.7	2.1	8.0	14	45	74	39	17	3.4	5.6	2.0
11	1.9	1.6	1.9	34	13	67	111	31	15	3.4	9.5	1.9
12	1.5	1.6	1.7	14	12	44	53	27	13	3.3	24	1.6
13	1.5	3.8	1.6	13	12	35	39	24	12	2.9	13	1.6
14	1.7	2.9	1.6	13	11	31	33	22	11	2.7	8.2	1.6
15	1.6	2.4	1.5	15	13	35	30	20	10	2.5	5.9	1.6
16	1.5	2.2	8.8	27	16	37	38	20	16	2.5	4.5	1.7
17	1.5	2.0	5.0	22	9.5	40	51	18	14	2.4	3.8	2.4
18	1.6	1.9	4.3	20	10	41	51	15	11	2.2	4.2	2.2
19	1.5	1.9	3.8	19	8.8	106	42	14	9.5	2.0	3.6	1.9
20	1.5	1.9	3.6	19	8.5	104	44	19	8.5	2.2	3.1	2.2
21	2.0	1.9	3.8	18	8.5	64	43	18	7.9	2.9	2.5	4.2
22	2.0	2.2	3.2	18	8.8	63	45	14	7.0	2.7	3.4	9.8
23	2.0	5.4	3.3	18	9.2	40	53	19	6.2	1.9	3.6	5.1
24	2.2	4.9	4.5	35	8.8	31	99	20	5.1	2.0	2.9	3.6
25	1.9	3.6	8.2	25	8.5	26	188	15	4.9	1.9	2.5	3.3
26	2.0	3.3	13	19	7.9	25	106	21	5.1	1.7	2.4	3.1
27	2.0	2.7	9.2	13	8.0	20	61	142	5.6	1.6	2.2	2.9
28	2.0	2.4	9.2	11	7.6	23	45	64	5.6	1.7	2.0	2.7
29	2.2	3.1	10	9.4	---	25	35	39	5.1	1.6	2.0	2.5
30	2.0	4.0	8.2	8.6	---	25	40	80	4.5	1.9	7.6	2.4
31	2.2	---	5.8	7.9	---	20	---	66	---	2.2	9.2	---
TOTAL	55.83	90.3	140.1	428.9	555.3	1086.4	1609	1274	473.0	98.0	178.7	84.8
MEAN	1.80	3.01	4.52	13.8	19.8	35.0	53.6	41.1	15.8	3.16	5.76	2.83
MAX	4.9	13	13	35	151	106	188	142	45	7.9	24	9.8
MIN	.93	1.6	1.5	4.0	7.3	8.2	20	14	4.5	1.6	2.0	1.6

CAL YR 1982 TOTAL 4677.51 MEAN 12.8 MAX 176 MIN .76  
WTR YR 1983 TOTAL 6074.33 MEAN 16.6 MAX 188 MIN .93

LOCATION.--Lat 43°48'28", long 73°27'30", Essex County, Hydrologic Unit 02010001, on west shore about 500 ft north of Hooper's dock at Rogers Rock, and 0.4 mi west of Baldwin.

PERIOD OF RECORD.--July 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is 315.93 ft National Geodetic Vertical Datum, adjustment of 1912. Prior to Nov. 4, 1929, nonrecording gages at several sites within a half mile of present site at same datum. Nov. 4, 1929 to Sept. 26, 1936, nonrecording gage at present site and datum.

REMARKS.--Elevation of lake regulated by floodgates at Ticonderoga. Prior to October 1974, lake was regulated by powerplant wheel gate and floodgates. Lake George has been controlled by a dam at its outlet for more than 100 years. Area of water surface is 44 mi<sup>2</sup>.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 5.09 ft Apr. 9, 1936; minimum, 0.64 ft Dec. 20, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.90 ft May 3; minimum, 2.73 ft Dec. 9.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.05	2.83	2.91	3.06	3.54	3.46	3.74	4.58	4.45	3.69	3.81	3.62
2	2.98	2.83	2.88	3.02	3.56	3.45	3.69	4.62	4.42	3.65	3.83	3.66
3	3.02	2.86	2.93	3.01	3.67	3.49	3.72	4.71	4.39	3.66	3.84	3.63
4	2.96	2.87	2.91	3.01	3.83	3.48	3.74	4.78	4.36	3.68	3.81	3.63
5	2.98	3.01	2.90	3.04	3.81	3.49	3.72	4.77	4.35	3.70	3.82	3.62
6	2.97	3.03	2.95	3.01	3.80	3.53	3.67	4.73	4.33	3.65	3.83	3.63
7	2.97	2.99	2.93	3.05	3.80	3.53	3.68	4.74	4.39	3.68	3.80	3.61
8	3.04	2.99	2.90	3.03	3.84	3.57	3.70	4.66	4.35	3.71	3.85	3.58
9	2.99	2.94	2.85	3.00	3.81	3.62	3.67	4.69	4.30	3.65	3.83	3.59
10	3.02	2.93	2.92	3.03	3.79	3.67	3.71	4.69	4.27	3.65	3.82	3.56
11	3.04	2.97	2.88	3.13	3.74	3.76	3.89	4.62	4.20	3.67	3.81	3.57
12	3.04	2.97	2.83	3.14	3.71	3.80	3.83	4.58	4.16	3.66	3.93	3.55
13	3.02	2.95	2.84	3.13	3.70	3.87	3.93	4.53	4.10	3.64	3.97	3.47
14	3.03	2.93	2.86	3.16	3.67	3.89	3.96	4.51	4.04	3.62	3.97	3.47
15	3.05	2.93	2.84	3.13	3.62	3.90	3.91	4.50	4.00	3.63	3.95	3.47
16	3.01	2.92	2.90	3.20	3.59	3.89	3.88	4.40	3.96	3.60	3.92	3.45
17	2.99	2.90	2.82	3.29	3.57	3.87	3.99	4.37	4.01	3.59	3.87	3.45
18	2.98	2.87	2.88	3.25	3.52	3.84	4.01	4.35	3.99	3.58	3.83	3.45
19	2.96	2.87	2.89	3.26	3.49	3.83	3.97	4.32	3.93	3.58	3.80	3.44
20	2.96	2.88	2.90	3.26	3.47	3.97	4.09	4.27	3.88	3.55	3.77	3.45
21	2.96	2.90	2.92	3.26	3.43	3.94	4.15	4.21	3.82	3.58	3.66	3.50
22	2.90	2.86	2.92	3.26	3.39	4.03	4.11	4.16	3.79	3.49	3.64	3.58
23	2.90	2.91	2.90	3.31	3.42	4.03	4.11	4.13	3.76	3.54	3.63	3.57
24	2.87	2.93	2.94	3.42	3.42	3.95	4.10	4.11	3.67	3.53	3.61	3.54
25	2.86	2.93	2.98	3.46	3.42	3.89	4.33	4.07	3.67	3.50	3.62	3.54
26	2.83	2.93	3.01	3.47	3.43	3.87	4.51	4.05	3.69	3.49	3.64	3.53
27	2.85	2.90	2.99	3.49	3.45	3.86	4.55	4.24	3.71	3.52	3.61	3.51
28	2.86	2.90	3.06	3.49	3.46	3.91	4.55	4.35	3.64	3.50	3.59	3.44
29	2.86	2.91	3.05	3.51	---	3.90	4.55	4.35	3.63	3.50	3.59	3.47
30	2.85	2.88	3.04	3.53	---	3.84	4.53	4.37	3.66	3.50	3.62	3.45
31	2.84	---	3.03	3.55	---	3.79	---	4.43	---	3.49	3.62	---
MEAN	2.96	2.92	2.92	3.22	3.61	3.77	4.00	4.45	4.03	3.60	3.77	3.53
MAX	3.05	3.03	3.06	3.55	3.84	4.03	4.55	4.78	4.45	3.71	3.97	3.66
MIN	2.83	2.83	2.82	3.00	3.39	3.45	3.67	4.05	3.63	3.49	3.59	3.44



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

195

04278300 NORTHWEST BAY BROOK NEAR BOLTON LANDING, NY

LOCATION.--Lat 43°39'48", long 73°36'14", Warren County, Hydrologic Unit 02010001, on left bank 10 ft downstream from county bridge on Padanarum Road, 7.7 mi north of Bolton Landing.

DRAINAGE AREA.--23.4 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1965 to September 1968, October 1971 to current year. Annual maximum, water years 1969-71.

GAGE.--Water-stage recorder. Datum of gage is 423.60 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1973, at datum 1.00 ft higher.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--15 years (1966-68, 1972-83), 36.8 ft<sup>3</sup>/s, 21.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft<sup>3</sup>/s Feb. 11, 1981, gage height, 6.35 ft from rating curve extended above 190 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 5.53 ft; maximum gage height, 7.14 ft Feb. 11, 1981 (ice jam); minimum discharge recorded, 0.28 ft<sup>3</sup>/s Sept. 27, 28, 29, 1968, gage height, 0.18 ft present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 3	1220	Unknown	*a4.95	Apr. 24	2215	546	3.87
Feb. 3	2215	*791	4.53	May 27	0900	472	3.64

a Ice jam.

Minimum discharge, 1.00 ft<sup>3</sup>/s July 28, gage height, 0.73 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.3	10	21	22	13	40	155	134	7.1	64	4.5
2	1.8	1.4	9.7	18	22	14	43	156	93	6.9	14	3.5
3	2.0	1.4	9.3	17	370	16	57	176	69	6.3	9.0	3.1
4	2.3	2.6	9.0	15	250	16	71	190	76	5.5	6.3	2.8
5	2.3	23	8.4	13	100	16	73	125	69	5.8	5.5	2.6
6	2.3	12	11	12	60	17	66	94	66	6.3	5.0	2.6
7	2.6	8.0	12	11	48	37	66	77	93	6.0	4.1	2.3
8	5.5	6.3	11	10	41	44	88	69	62	5.0	3.5	2.0
9	2.1	5.3	9.0	9.4	36	48	73	134	47	4.5	5.0	2.0
10	1.6	5.0	7.8	9.0	34	64	109	108	39	3.9	3.9	2.0
11	1.2	4.8	6.6	56	32	112	259	88	34	3.5	7.4	1.8
12	.91	3.9	5.6	45	31	86	137	73	28	3.5	104	1.7
13	.91	5.5	5.0	35	30	66	95	60	25	3.1	47	1.6
14	.91	5.3	6.0	45	30	64	76	53	25	2.8	21	1.6
15	1.2	5.3	7.0	39	30	82	65	50	29	2.6	13	1.4
16	2.0	5.0	49	24	32	90	74	56	23	2.4	9.3	1.4
17	1.8	4.8	50	21	27	94	129	47	35	2.1	8.0	1.7
18	2.0	4.5	35	20	23	93	133	41	27	2.0	8.0	2.0
19	1.6	4.3	25	19	20	175	112	36	48	1.8	6.9	1.8
20	1.4	4.3	16	19	19	210	120	37	29	1.7	5.5	2.3
21	1.3	4.1	13	19	18	139	117	35	19	1.6	4.5	3.3
22	1.2	4.8	11	20	17	131	128	31	16	1.6	4.5	13
23	1.2	8.0	11	40	16	84	160	31	13	1.4	5.5	5.0
24	1.2	10	12	140	15	66	293	35	11	1.6	5.3	3.1
25	1.1	9.0	20	100	14	54	437	29	9.7	1.7	3.7	2.6
26	1.2	8.0	35	60	14	44	268	33	9.7	1.6	3.1	2.3
27	1.2	7.0	26	40	13	38	165	337	14	1.3	2.9	2.4
28	1.3	6.0	33	32	13	46	118	180	12	1.2	3.1	1.8
29	1.2	7.1	39	28	---	54	91	108	9.7	1.3	4.1	1.6
30	1.2	8.7	30	25	---	45	102	139	8.0	1.3	3.9	1.6
31	1.3	---	24	23	---	40	---	162	---	3.9	5.8	---
TOTAL	51.13	186.7	556.4	985.4	1377	2098	3765	2945	1173.1	101.3	396.8	81.4
MEAN	1.65	6.22	17.9	31.8	49.2	67.7	126	95.0	39.1	3.27	12.8	2.71
MAX	5.5	23	50	140	370	210	437	337	134	7.1	104	13
MIN	.91	1.3	5.0	9.0	13	13	40	29	8.0	1.2	2.9	1.4
CFSM	.07	.27	.77	1.36	2.10	2.89	5.39	4.06	1.67	.14	.55	.12
IN.	.08	.30	.88	1.57	2.19	3.34	5.99	4.68	1.86	.16	.63	.13
CAL YR 1982	TOTAL	9781.19	MEAN 26.8	MAX 485	MIN .45	CFSM 1.15	IN 15.55					
WTR YR 1983	TOTAL	13717.23	MEAN 37.6	MAX 437	MIN .91	CFSM 1.61	IN 21.81					

## ST. LAWRENCE RIVER BASIN

## 04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT

LOCATION.--Lat 43°37'40", long 73°18'50", Rutland County, Hydrologic Unit 02010001, on right bank 0.3 mi downstream from Carver Falls, 1.9 mi upstream from Hubbardton River, and 3.2 mi northwest of Fair Haven.

DRAINAGE AREA.--187 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: October 1928 to current year.  
Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 1114: 1929(M), 1932-35.

GAGE.--Water-stage recorder. Altitude of gage is 105 ft, from topographic map.

REMARKS.--Records fair except those for winter period, and period of no gage-height record Oct. 1 to Nov. 1, Nov. 3 to Dec. 6, which are poor. Flow regulated by powerplant upstream and by Lake Bomoseen. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--55 years, 251 ft<sup>3</sup>/s, 18.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft<sup>3</sup>/s July 20, 1945, gage height, 24.36 ft, from high-water mark in well, from rating curve extended above 2,600 ft<sup>3</sup>/s on basis of computations of flow over dam at gage heights 16.10 ft, 21.40 ft, and 24.36 ft; minimum daily, 2.1 ft<sup>3</sup>/s Aug. 8, 1965, Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 25	1630	2620	11.40	May 4	1115	*5020	15.41

Minimum daily discharge, 3.1 ft<sup>3</sup>/s Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	110	35	121	250	139	363	1060	864	49	174	33
2	3.7	70	60	113	200	150	346	1330	695	50	191	30
3	5.0	50	54	109	500	200	389	2850	588	49	104	26
4	15	40	48	60	1000	183	518	3900	572	46	104	25
5	12	50	40	52	520	163	434	2160	566	66	65	23
6	6.0	66	42	72	230	161	404	1540	533	77	65	22
7	6.0	45	45	90	240	198	383	1200	874	75	82	56
8	30	54	48	100	190	235	447	986	652	53	53	14
9	28	42	44	120	180	303	456	1130	533	49	120	16
10	26	50	48	125	160	332	434	1070	461	42	226	3.4
11	45	14	32	130	170	624	1100	1040	398	43	148	4.3
12	35	25	31	200	140	539	912	950	341	44	606	48
13	30	20	31	136	120	470	728	816	285	20	566	3.4
14	15	25	28	96	140	437	621	626	141	31	380	26
15	56	90	28	96	150	510	536	554	146	4.9	311	10
16	14	80	55	120	130	606	498	596	121	4.9	209	18
17	15	60	253	110	140	652	824	518	90	16	136	3.4
18	39	43	128	120	130	566	1170	377	134	24	106	3.4
19	30	52	131	110	120	660	1050	293	157	11	93	31
20	33	17	97	100	100	1310	1060	308	126	12	87	3.1
21	29	27	100	98	110	1070	1210	410	117	9.9	65	34
22	35	37	78	120	120	962	1140	341	113	13	71	26
23	20	50	70	200	130	900	1310	282	76	4.0	49	57
24	20	70	77	800	120	775	1510	330	86	4.3	47	23
25	40	110	91	900	131	650	2460	319	67	8.7	54	26
26	42	70	174	700	113	434	2110	274	96	11	47	23
27	35	45	163	520	86	395	1580	422	52	9.9	18	32
28	39	35	159	430	101	425	1260	413	81	9.5	51	6.3
29	50	27	207	360	---	626	1040	360	73	8.2	24	43
30	70	20	183	330	---	498	1010	536	48	3.1	8.7	23
31	100	---	139	300	---	383	---	964	---	3.1	34	---
TOTAL	927.4	1494	2719	6938	5721	15556	27303	27955	9086	851.5	4294.7	692.3
MEAN	29.9	49.8	87.7	224	204	502	910	902	303	27.5	139	23.1
MAX	100	110	253	900	1000	1310	2460	3900	874	77	606	57
MIN	3.7	14	28	52	86	139	346	274	48	3.1	8.7	3.1
CFSM	.16	.27	.47	1.20	1.09	2.68	4.87	4.82	1.62	.15	.74	.12
IN.	.18	.30	.54	1.38	1.14	3.09	5.43	5.56	1.81	.17	.85	.14
CAL YR 1982	TOTAL	87201.6	MEAN	239	MAX	3220	MIN	3.7	CFSM	1.28	IN	17.35
WTR YR 1983	TOTAL	103537.9	MEAN	284	MAX	3900	MIN	3.1	CFSM	1.52	IN	20.60

04294500 LAKE CHAMPLAIN AT BURLINGTON, VT

LOCATION.--Lat 44°28'52", long 73°13'27", Chittenden County, Hydrologic Unit 02010003, 50 ft south of Gulf Oil Co. dock at Burlington, 0.1 mi north of Burlington Water Department pumping station, and 0.5 mi north of railroad station.

PERIOD OF RECORD.--Gage heights: May 1907 to current year.  
Water-quality records: Water year 1971.

REVISED RECORDS.--WSP 684: 1912-29 (datum correction). WSP 1207: 1938 (datum correction).

GAGE.--Water-stage recorder. Datum of gage is 92.86 ft National Geodetic Vertical Datum of 1929. Prior to July 20, 1937, nonrecording gage at site 0.7 mi south, and July 20, 1937, to Sept. 7, 1939, nonrecording gage at site 0.1 mi south, both at present datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 8.80 ft Apr. 4, 1976; minimum observed, -0.25 ft Dec. 4, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.49 ft May 12, affected by seiche; minimum, 1.23 ft Nov. 1, affected by seiche.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.68	1.30	1.70	2.12	2.26	2.51	4.14	7.46	7.39	4.69	3.07	2.74
2	1.67	1.32	1.75	2.14	2.23	2.49	4.12	7.70	7.36	4.62	3.09	2.68
3	1.64	1.31	1.74	2.14	2.33	2.48	4.09	7.95	7.29	4.57	3.11	2.63
4	1.62	1.35	1.73	2.10	2.62	2.46	4.09	8.17	7.20	4.48	3.12	2.60
5	1.61	1.50	1.81	2.02	2.81	2.45	4.10	8.32	7.11	4.42	3.10	2.56
6	1.60	1.54	1.80	2.05	2.87	2.42	4.10	8.37	7.06	4.38	3.08	2.53
7	1.59	1.62	1.82	2.02	2.93	2.42	4.09	8.31	7.07	4.33	3.06	2.51
8	1.61	1.64	1.84	2.02	2.99	2.44	4.12	8.25	7.05	4.25	3.03	2.49
9	1.67	1.68	1.85	2.00	2.98	2.51	4.20	8.32	6.97	4.19	3.10	2.43
10	1.70	1.67	1.79	1.91	2.97	2.61	4.26	8.38	6.92	4.11	3.13	2.38
11	1.68	1.56	1.70	2.00	2.97	2.76	4.42	8.45	6.90	4.04	3.16	2.36
12	1.63	1.53	1.74	2.07	2.95	2.90	4.57	8.46	6.77	3.97	3.22	2.34
13	1.62	1.60	1.72	2.14	2.92	3.00	4.70	8.41	6.53	3.91	3.25	2.30
14	1.61	1.64	1.65	2.15	2.89	3.04	4.72	8.35	6.43	3.85	3.29	2.27
15	1.59	1.63	1.64	2.15	2.88	3.10	4.75	8.24	6.31	3.81	3.27	2.21
16	1.60	1.60	1.66	2.20	2.86	3.18	4.86	8.15	6.19	3.74	3.24	2.15
17	1.57	1.59	1.75	2.18	2.82	3.24	5.06	8.11	6.08	3.67	3.22	2.07
18	1.56	1.62	1.83	2.16	2.82	3.32	5.21	8.08	5.98	3.63	3.22	2.06
19	1.50	1.59	1.84	2.13	2.80	3.44	5.34	8.05	5.90	3.57	3.21	2.03
20	1.46	1.50	1.87	2.11	2.77	3.66	5.44	7.98	5.81	3.50	3.16	2.01
21	1.45	1.47	1.88	2.10	2.72	3.95	5.54	7.72	5.71	3.44	3.11	1.99
22	1.45	1.57	1.88	2.09	2.71	4.14	5.64	7.64	5.61	3.38	3.09	2.16
23	1.43	1.60	1.87	2.09	2.66	4.22	5.74	7.57	5.50	3.36	3.03	2.19
24	1.42	1.61	1.83	2.14	2.66	4.25	5.87	7.44	5.39	3.32	2.99	2.19
25	1.39	1.62	1.84	2.18	2.64	4.25	6.16	7.35	5.26	3.27	2.95	2.14
26	1.39	1.64	1.89	2.24	2.61	4.23	6.53	7.27	5.15	3.22	2.88	2.08
27	1.37	1.67	1.98	2.26	2.56	4.19	6.87	7.36	5.07	3.17	2.85	2.06
28	1.34	1.64	1.99	2.27	2.52	4.20	7.03	7.41	5.01	3.10	2.85	2.06
29	1.31	1.63	2.06	2.27	---	4.22	7.15	7.44	4.89	3.06	2.82	2.04
30	1.29	1.69	2.14	2.25	---	4.20	7.27	7.34	4.81	3.05	2.78	2.01
31	1.28	---	2.13	2.25	---	4.17	---	7.36	---	3.05	2.76	---
MEAN	1.53	1.56	1.83	2.13	2.74	3.30	5.14	7.92	6.22	3.78	3.07	2.28
MAX	1.70	1.69	2.14	2.27	2.99	4.25	7.27	8.46	7.39	4.69	3.29	2.74
MIN	1.28	1.30	1.64	1.91	2.23	2.42	4.09	7.27	4.81	3.05	2.76	1.99
CAL	YR 1982	MEAN	3.15	MAX	7.37	MIN	1.28					
WTR	YR 1983	MEAN	3.46	MAX	8.46	MIN	1.28					

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY  
(National stream-quality accounting network station)  
(National pesticide network station)

LOCATION.--Lat 44°59'46", long 73°21'37", Clinton County, Hydrologic Unit 02010006, on left bank at outlet of Lake Champlain in Rouses Point, and 1.0 mi south of Fort Montgomery ruins. Water-quality sampling site at stage station.

DRAINAGE AREA.--8,277 mi<sup>2</sup>.

## WATER-STAGE RECORDS

PERIOD OF RECORD.--March 1871 to current year. Maximum and minimum monthly gage heights at St. Johns, Quebec, October 1863 to December 1870, published in WSP 97. Prior to October 1870, daily gage heights published in WSP 894. Discharge records for January 1875 to September 1916 at "Chambly, Quebec," published in WSP 65, 82, 97, 129, 170, 206, 424, and 1307 have been found to be unreliable and should not be used. Daily discharge record for "Richelieu River at Fryers Rapids, Quebec," published in Water Supply of Canada annual reports. Gage heights prior to October 1, 1925, published as "Richelieu River at Fort Montgomery, Rouses Point."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. March 1871 to May 1923, nonrecording gage located in Fort Montgomery and May 1923 to October 1938, nonrecording gage at present site. Prior to October 1970, at datum 93.00 ft higher.

REMARKS.--Area of lake surface about 490 mi<sup>2</sup>. Total volume below 92.5 ft elevation, reported by Lake Champlain Studies Center, 902.2 bil ft<sup>3</sup>.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 101.80 ft Mar. 30, 1903; minimum observed, 92.17 ft Oct. 23, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since at least 1827, 102.1 ft May 4, 1869, from marks at railroad bridge near present gage, according to data published on p. 428 of the Report of the Board of Engineers on Deep Waterways, 1900: U.S. 56th Cong., 2d sess. H. Doc. 149.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 101.61 ft May 7, minimum, 93.89 ft Oct. 21.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94.58	94.15	94.67	95.07	95.08	95.33	96.90	100.28	100.19	97.73	96.04	95.57
2	94.49	94.15	94.59	94.93	95.13	95.29	96.88	100.55	100.13	97.54	95.97	95.63
3	94.61	94.23	94.91	94.89	95.20	95.27	96.94	100.75	100.09	97.44	96.00	95.55
4	94.45	94.17	94.71	94.99	95.42	95.28	96.94	100.99	100.01	97.45	95.98	95.55
5	94.47	94.37	94.69	95.13	95.60	95.27	96.93	101.15	99.95	97.32	95.96	95.50
6	94.46	94.55	94.79	94.89	95.71	95.28	96.92	101.17	99.86	97.19	95.96	95.49
7	94.42	94.54	94.70	94.96	95.73	95.29	97.03	101.31	99.87	97.17	95.92	95.37
8	94.59	94.58	94.66	94.82	95.78	95.33	96.93	101.10	99.82	97.18	95.99	95.29
9	94.40	94.45	94.53	94.85	95.78	95.36	96.98	101.10	99.80	96.99	95.92	95.37
10	94.45	94.50	94.92	95.01	95.81	95.41	97.12	101.21	99.74	96.94	95.93	95.28
11	94.54	94.92	94.65	94.86	95.79	95.56	97.23	101.21	99.57	96.93	95.96	95.27
12	94.59	94.74	94.51	94.88	95.77	95.65	97.37	101.22	99.50	96.88	96.00	95.16
13	94.53	94.38	94.58	94.97	95.79	95.81	97.51	101.19	99.38	96.74	96.07	95.09
14	94.51	94.48	94.67	95.01	95.77	95.89	97.82	101.15	99.26	96.72	96.11	95.05
15	94.53	94.50	94.58	94.98	95.71	95.95	97.79	101.15	99.14	96.65	96.13	95.06
16	94.42	94.63	94.53	94.95	95.69	96.00	97.70	100.96	99.04	96.55	96.14	95.08
17	94.37	94.49	94.51	95.00	95.70	96.12	97.84	100.94	98.92	96.50	96.14	95.15
18	94.43	94.46	94.68	94.98	95.63	96.18	98.00	100.89	98.84	96.43	96.09	95.02
19	94.55	94.57	94.77	94.96	95.62	96.26	98.01	100.86	98.73	96.38	96.05	94.97
20	94.65	94.77	94.70	94.96	95.60	96.49	98.22	100.78	98.65	96.34	96.02	94.97
21	94.34	94.63	94.71	94.96	95.58	96.73	98.39	100.51	98.54	96.30	95.89	95.09
22	94.27	94.38	94.71	94.94	95.54	96.95	98.48	100.43	98.46	96.11	95.93	95.06
23	94.27	94.50	94.70	94.95	95.54	97.01	98.56	100.37	98.39	96.17	95.88	95.05
24	94.25	94.44	94.84	94.99	95.49	97.01	98.59	100.21	98.17	96.16	95.82	95.04
25	94.26	94.52	94.86	95.04	95.45	97.00	98.94	100.15	98.06	96.10	95.80	95.10
26	94.18	94.58	94.73	95.06	95.42	97.03	99.39	100.06	98.09	96.05	95.84	95.09
27	94.23	94.42	94.92	95.11	95.43	97.11	99.69	100.15	97.94	96.05	95.74	94.95
28	94.22	94.65	95.18	95.11	95.38	97.04	99.85	100.20	97.82	96.04	95.68	94.88
29	94.25	94.54	94.95	95.12	---	96.90	99.94	100.22	97.76	96.00	95.64	94.87
30	94.19	94.51	94.98	95.13	---	96.96	100.11	100.14	97.73	95.92	95.66	94.87
31	94.17	---	95.06	95.12	---	96.98	---	100.17	---	95.88	95.60	---
MEAN	94.41	94.49	94.74	94.99	95.58	96.12	97.97	100.73	99.05	96.64	95.93	95.18
MAX	94.65	94.92	95.18	95.13	95.81	97.11	100.11	101.31	100.19	97.73	96.14	95.63
MIN	94.17	94.15	94.51	94.82	95.08	95.27	96.88	100.06	97.73	95.88	95.60	94.87
CAL YR 1982	MEAN 96.02		MAX 100.18	MIN 94.15								
WTR YR 1983	MEAN 96.32		MAX 101.31	MIN 94.15								



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

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04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-67, 1969-72, 1974 to current year.

CHEMICAL DATA: 1966-67 (a), 1969 (b), 1970 (c), 1971-72 (b), 1974-82 (c), 1983 (b).

MINOR ELEMENTS DATA: 1974-83 (b).

PESTICIDE DATA: 1976-79 (b), 1980 (a), 1982 (b).

ORGANIC DATA: OC--1974 (a), 1975-77 (b), 1978 (a), 1979-81 (c).

PCB--1978-79 (b), 1980 (a), 1982 (b).

NUTRIENT DATA: 1970 (c), 1971-72 (b), 1974 (b), 1975-82 (c), 1983 (b).

BIOLOGICAL DATA:

Bacteria--1974 (a), 1975-82 (c), 1983 (b).

Phytoplankton--1974 (a), 1975-78 (c), 1979 (b), 1980-81 (c).

Periphyton--1975 (c), 1976-80 (b).

SEDIMENT DATA: 1975-82 (c), 1983 (b).

## WATER QUALITY DATA, WATER YEAR, OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 18...	1030	143	6.9	11.0	<1.0	770	10.9	98	28	38
MAY 02...	1000	136	7.9	7.0	1.3	755	13.3	111	K1	K11
JUN 08...	0900	140	7.7	12.0	1.3	760	11.0	102	K5	K2
AUG 30...	1000	140	8.3	23.5	1.1	760	9.5	112	K4	45

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 18...	59	3	17	4.1	5.5	1.1	56	15	8.6	<.10
MAY 02...	62	15	18	4.1	6.2	1.2	47	15	9.1	<.10
JUN 08...	--	--	--	--	--	1.2	44	14	8.5	.10
AUG 30...	59	12	17	4.1	6.1	1.1	48	14	8.6	<.10

	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
OCT 18...	.6	91	86	<.10	.020	.80	.050	.040	.020	20
MAY 02...	.6	77	83	.16	<.010	.20	.020	<.010	<.010	<10
JUN 08...	--	85	--	.15	<.010	.30	<.010	<.010	<.010	10
AUG 30...	1.0	80	81	<.10	<.010	.70	.030	.030	<.010	<10

K Results based on colony count outside the acceptable range (non-ideal colony count).

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

WATER QUALITY DATA, WATER YEAR, OCTOBER 1982 TO SEPTEMBER 1983

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
OCT 18...	1	13	<1	1	<1	<3	2	4	1	<4
MAY 02...	1	11	<1	1	<1	<3	2	14	6	4
JUN 08...	--	--	--	--	1	--	2	--	2	--
AUG 30...	2	16	<1	<1	<1	<3	1	7	<1	<4

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 18...	3	.1	<10	<1	<1	<1	73	<6.0	26
MAY 02...	<1	<.1	<10	4	<1	<1	83	<6.0	6
JUN 08...	--	<.1	--	3	<1	<1	--	--	--
AUG 30...	1	.1	<10	2	<1	<1	84	<6.0	8

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SAM- PLING DEPTH (FEET)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN									
08...	0910	275	1	15	145	7.1	12.0	12.1	113
08...	0911	275	5	15	145	7.5	12.0	11.6	108
08...	0912	275	10	15	144	7.5	12.0	11.1	103
08...	0913	275	15	15	142	7.6	12.0	11.4	106
08...	0920	550	1	27	144	7.7	12.0	11.9	111
08...	0921	550	5	27	144	7.7	12.0	11.3	105
08...	0922	550	10	27	144	7.7	12.0	11.1	103
08...	0923	550	15	27	144	7.7	12.0	11.1	103
08...	0924	550	20	27	143	7.7	12.0	11.0	102
08...	0925	550	25	27	142	7.6	12.0	10.8	100
08...	0930	825	1	32	142	7.7	12.0	11.5	107
08...	0931	825	5	32	141	7.8	12.0	11.0	102
08...	0932	825	10	32	141	7.7	12.0	11.0	102
08...	0933	825	15	32	140	7.7	12.0	11.0	102
08...	0934	825	20	32	140	7.7	12.0	10.9	101
08...	0935	825	25	32	139	7.7	12.0	10.9	101
08...	0936	825	30	32	139	7.7	12.0	11.0	102
08...	0940	1100	1	20	138	7.7	12.5	11.5	108
08...	0941	1100	5	20	138	7.6	12.5	11.1	104
08...	0942	1100	10	20	138	7.6	12.5	10.9	103
08...	0943	1100	15	20	138	7.6	12.5	10.9	103
08...	0944	1100	20	20	137	7.6	12.5	10.9	103
08...	0950	1330	1	17	136	7.7	12.5	11.5	108
08...	0951	1330	5	17	138	7.6	12.5	11.1	104
08...	0952	1330	10	17	139	7.6	12.5	10.9	103
08...	0953	1330	15	17	138	7.6	12.5	10.8	102

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SEDI- MENT, SUS- PENDE (MG/L)	DATE	TIME	SEDI- MENT, SUS- PENDE (MG/L)
OCT 18...	1030	2	JUN 08...	0900	1
MAY 02...	1000	2	AUG 30...	1000	0

## LAKES AND RESERVOIRS IN STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04260990 CRANBERRY LAKE AT CRANBERRY LAKE, NY--Lat 44°13'14", long 74°50'55", St. Lawrence County, Hydrologic Unit 04150302, on right wall at outlet structure, at village of Cranberry Lake. DRAINAGE AREA, 144 mi<sup>2</sup>. PERIOD OF RECORD, April 1923 to current year. GAGE, nonrecording gage read daily at 1200 hours. Datum of gage is 1,469.75 ft National Geodetic Vertical Datum of 1929.

Dam completed in 1867 and controlled storage for which records are available began in 1923. Usable capacity above elevation 1,475.25 ft is 2,530 mil ft<sup>3</sup>. Crest at spillway is at elevation, 1,486.43 ft. Length of spillway is 110 ft. Area of water surface at crest elevation is 10.9 mi<sup>2</sup>. Records furnished by Oswegatchie River-Cranberry Reservoir Commission.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 2,985 mil ft<sup>3</sup> May 13-15, 1971, gage height, 18.5 ft; minimum observed, 70 mil ft<sup>3</sup> Apr. 1-4, 1956, gage height, 6.0 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 2,620 mil ft<sup>3</sup> May 4-5, gage height, 17.3 ft; minimum observed, 1,532 mil ft<sup>3</sup> Feb. 3, gage height, 13.3 ft.

04266700 CARRY FALLS RESERVOIR NEAR SOUTH COLTON, NY--Lat 44°26'07", long 74°44'50", St. Lawrence County, Hydrologic Unit 04150305, near center of upstream wall of dam between Carry Falls and Stark Falls Reservoirs, 2.0 mi southeast of Stark, and 8.8 mi southeast of South Colton. DRAINAGE AREA, 873 mi<sup>2</sup>. PERIOD OF RECORD, October 1954 to current year. GAGE, nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Dam completed January 1953 and controlled storage for which records are available began in October 1954. Usable capacity above elevation 1,332.0 ft is 5,114.9 mil ft<sup>3</sup>. Crest at spillway is at elevation 1,386.0 ft. Length of spillway is 830 ft. Area of water surface at crest elevation is 5.16 mi<sup>2</sup> (3,300 acres). The pond has a length of 6 mi and a perimeter of 25 mi. Below crest elevation, capacity controlled by a taintor gate, 27 ft x 15 ft, and 2 sluice gates, 10 ft x 10 ft. Records furnished by Niagara Mohawk Power Corp.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 5,146 mil ft<sup>3</sup> June 1, 5, 6, 1955, elevation, 1,386.1 ft; minimum observed, 8.64 mil ft<sup>3</sup> Mar. 27-30, 1963, Apr. 4-11, 1964, elevation, 1,331.0 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 5,104 mil ft<sup>3</sup> May 1, elevation, 1,385.8 ft; minimum observed, 2,060 mil ft<sup>3</sup> Oct. 1, elevation, 1,360.7 ft.

04273900 LAKE PLACID AT LAKE PLACID, NY (see station for daily mean elevations).

04278000 LAKE GEORGE AT ROGERS ROCK, NY (see station for daily mean gage heights).

04294500 LAKE CHAMPLAIN AT BURLINGTON, VT (see station for daily mean gage heights).

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY (see station for daily mean elevations).

## MONTHEND GAGE HEIGHT, ELEVATION, AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	*Gage height (feet)	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	*Elevation (feet)	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
04260990 Cranberry Lake				04266700 Carry Falls Reservoir		
Sept. 30.....	15.0	1,970		1,360.9	2,080.5	
Oct. 31.....	14.5	1,840	- 48.5	1,365.1	2,516.0	+163
Nov. 30.....	14.9	1,944	+ 40.1	1,380.5	4,371.8	+716
Dec. 31.....	14.2	1,762	- 67.9	1,383.6	4,800.4	+160
CAL YR 1982			+ 2.47			+ 41.2
Jan. 31.....	13.4	1,556	- 76.9	1,376.0	3,784.3	-379
Feb. 28.....	13.4	1,556	0	1,368.2	2,847.7	-387
Mar. 31.....	14.8	1,918	+135	1,370.0	3,049.9	+ 75.5
Apr. 30.....	17.2	2,590	+259	1,385.8	5,104.5	+793
May 31.....	16.6	2,410	- 67.2	1,385.2	5,021.6	- 31.0
June 30.....	16.0	2,240	- 65.6	1,383.2	4,745.1	-107
July 31.....	15.3	2,048	- 71.7	1,371.6	3,234.8	-564
Aug. 31.....	15.8	2,184	+ 50.8	1,373.5	3,464.6	+ 85.8
Sept. 30.....	15.2	2,022	- 62.5	1,364.6	2,464.1	-386
WTR YR 1983			+ 1.65			+ 12.2

\* Gage heights or elevations at 2400 hours, by interpolation.

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 usually presented in two tables. The first is usually 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. No discharge measurements were made at low-flow partial-record stations for the 1983 water year.

#### 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, 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 discharge at crest-stage partial-record stations during water year 1983

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft <sup>3</sup> /s)
Housatonic River basin							
01199477	Stony Brook near Dover Plains, NY	Lat 41°42'38", long 73°37'18", Dutchess County, Hydrologic Unit 01100005, on town road, 100 ft upstream from mouth, and 2.9 mi southwest of Dover Plains.	1.93	1976-83	4-25-83	1.61	125
Mamaroneck River basin							
01300800	Mamaroneck River at Winfield Avenue at Mamaroneck, NY	Lat 40°58'07", long 73°44'15", Westchester County, Hydrologic Unit 02030102, at bridge on Winfield Avenue, 0.1 mi downstream from Mamaroneck Reservoir, and 1.6 mi upstream from gaging station at Mamaroneck (01301000).	14.5	1972, 1983	4-10-83	8.00	1,220
Hudson River basin							
01319800	West Branch Sacandaga River at Arietta, NY	Lat 43°15'03", long 74°31'06", Hamilton County, Hydrologic Unit 02020002, at bridge on State Highway 10, 0.4 mi north of Arietta.	28.9	1963-83	5- 1-83	10.98	1,040
01319950	Sand Lake Outlet near Piseco, NY	Lat 43°22'15", long 74°32'47", Hamilton County, Hydrologic Unit 02020002, at bridge on State Highway 10, 0.9 mi upstream from mouth and 5.5 mi south of Piseco.	7.16	1962-83	4- 4-63 4-14-64 4-22-65 3-25-66 4- 3-67 3-23-68 4-19-69 4- 3-70 5- 3-71 6-23-72 3-18-73 12-21-73 4-25-75 4- 1-76 4-24-77 3-14-78 4-28-79 4- 9-80 12- 3-80 10-28-81 2- 3-83	2.36 2.33 1.62 1.31 - 2.58 1.91 1.53 1.40 2.03 2.71 1.69 2.46 2.36 2.42 1.48 2.23 2.72 1.30 2.30 1.97	R364 R356 R181 R122 R270 R430 R246 R163 R138 R275 R471 R196 R394 R364 R382 R153 R328 R475 R120 R347 260
01329154	Steele Brook at Shushan, NY	Lat 43°05'35", long 73°19'38", Washington County, Hydrologic Unit 02020003, at bridge on county road, 1.1 mi upstream from mouth, and 0.8 mi east of Shushan.	2.85	1979-83	5-24-83	3.37	38

R Revised.



Annual maximum discharge at crest-stage partial-record stations during water year 1983--Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (ft <sup>3</sup> /s)
		Hudson River basin--Continued					
01329780	Sessions Brook at Porters Corners, NY	Lat 43°09'21", long 73°52'45", Saratoga County, Hydrologic Unit 02020003, at culvert on County Highway 17, 0.7 mi northeast of Porters Corners, and 0.9 mi upstream from mouth.	1.04	1968-71, 1973, 1975-76, 1978-83	4-25-83	10.22	21
01329900	Glowegee Creek tributary at Mosherville, NY	Lat 43°03'24", long 74°00'58", Saratoga County, Hydrologic Unit 02020003, at culvert on Parkis Mill Road, 0.4 mi south of Mosherville.	1.42	1968-75, 1979-83	5- 2-83	12.02	63
01330880	Saratoga Lake tributary near Bemis Heights, NY	Lat 42°59'43", long 73°43'06", Saratoga County, Hydrologic Unit 02020003, at culvert on State Highway 423, 1.4 mi upstream from mouth, and 4.6 mi northwest of Bemis Heights.	2.98	1968, 1970-71, 1973, 1975-83	5- 2-83	11.55	58
01333367	Little Hoosic River at Cherry Plain, NY	Lat 42°37'57", long 73°21'23", Rensselaer County, Hydrologic Unit 02020003, at bridge on town road, just upstream from Kronk Brook, in Cherry Plain, 4.2 mi south of Berlin.	2.22	1976-83	4-19-83	3.18	167
01342730	Steele Creek at Illion, NY	Lat 43°00'05", long 75°02'44", Herkimer County, Hydrologic Unit 02020004, at bridge on Whitney Street in Illion, and 2.6 mi upstream from mouth.	26.1	1964-65, 1966-68*, 1969, 1971-74, 1976-83	4-13-72 1- 1-73 7- 3-74 2-24-75 2-22-76 3-14-77 10-20-77 3- 5-79 3-21-80 2-20-81 6-29-82 4-25-83	3.33 5.02 4.93 2.97 3.56 4.18 3.98 3.34 3.77 5.30 4.33 3.27	R681 R1,610 R1,550 R536 R784 R1,100 R991 R686 R884 R1,810 R1,180 656
01346820	Mohawk River tributary at Indian Castle, NY	Lat 43°00'34", long 74°47'47", Herkimer County, Hydrologic Unit 02020004, at culvert on State Highway 5S, 0.35 mi west of Indian Castle, and 0.4 mi upstream from mouth.	1.40	1974-83	4-16-83	1.55	55
01347460	Spruce Lake tributary near Salisbury Center, NY	Lat 43°10'51", long 74°48'44", Herkimer County, Hydrologic Unit 02020004, at culvert on town road (Jerseyfield Road), 1.3 mi upstream from mouth, and 2.9 mi north of Salisbury Center.	.53	1975-83	4-16-83	2.68	26
01348420	North Creek near Ephratah, NY	Lat 43°00'28", long 74°33'54", Fulton County, Hydrologic Unit 02020004, at culvert on town road, 0.4 mi upstream from mouth, and 1.2 mi northwest of Ephratah.	6.68	1975-83	4-16-83	7.23	315
01349360	Van Wie Creek tributary near Randall, NY	Lat 42°54'11", long 74°25'55", Montgomery County, Hydrologic Unit 02020004, at culvert on Brumley Road, 0.3 mi south of intersection with Argisinger Road, and 0.9 mi southwest of Randall.	1.00	1974-83	4-16-83	4.73	91
01349850	Batavia Kill at Hensonville, NY	Lat 42°22'17", long 74°12'55", Greene County, Hydrologic Unit 02020005, on County Highway 40, at Hensonville, 0.7 mi upstream from Silver Lake Outlet, and 1.8 mi upstream from Nauvo Stream.	13.5	1955, 1960-66, 1972, 1974, 1976, 1978-83	4-24-83	3.37	647
01350900	Beaverdam Creek near Knox, NY	Lat 42°38'55", long 74°07'56", Albany County, Hydrologic Unit 02020005, 250 ft downstream from bridge, 1.2 mi south of Knox, and 1.7 mi upstream from mouth.	6.91	1963-64, 1966-74, 1976-77, 1979-83	4-25-83	5.48	693 172

\* Operated as a continuous-record gaging station.

R Revised.

Annual maximum discharge at crest-stage partial-record stations during water year 1983--Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft <sup>3</sup> /s)
		Hudson River basin--Continued					
01354200	Sandsea Kill at Pattersonville, NY	Lat 42°53'20", long 74°04'42", Schenectady County, Hydrologic Unit 02020004, at bridge on State Highway 5S, in village of Pattersonville.	9.60	1957-74, 1976-83	5- 2-83	2.77	760
01354300	Plotter Kill at Rynex Corners, NY	Lat 42°49'16", long 74°04'20", Schenectady County, Hydrologic Unit 02020004, at bridge on State Highway 159, in hamlet of Rynex Corners.	3.70	1958, 1960-68, 1970-74, 1976-83	4-25-83	4.44	166
01355405	Indian Kill near Glenville Center, NY	Lat 42°53'40", long 73°57'27", Schenectady County, Hydrologic Unit 02020004, 1.1 mi east of Glenville Center, and 1.3 mi west of East Glenville.	2.25	1968-83	5- 2-83	16.69	92
01359133	Patroon Creek at Northern Boulevard at Albany, NY	Lat 42°40'17", long 73°45'22", Albany County, Hydrologic Unit 02020006, at culvert, 500 ft upstream from Northern Boulevard, 700 ft downstream from railroad bridge, 1600 ft downstream from Tivoli Lake at Albany, and 1.3 mi upstream from mouth.	13.1	1979-83	9-21-83	11.19	620
01361245	Tributary to Taghkanic Creek tributary near Craryville, NY	Lat 42°09'54", long 73°34'15", Columbia County, Hydrologic Unit 02020006, at culvert on County Highway 7, 300 ft upstream from mouth, 0.1 mi northwest of intersection of Routes 7 and 7A, 1.1 mi upstream from Taghkanic Creek and 1.4 mi southeast of Craryville.	0.39	1982-83	4-20-83	2.53	46
01361453	Catskill Creek tributary at Franklinton, NY	Lat 42°31'35", long 74°18'33", Schoharie County, Hydrologic Unit 02020006, at culvert on town road, 0.15 mi upstream from mouth, and 0.5 mi northwest of Franklinton.	3.61	1968-72, 1974-83	4-25-83	4.15	123
01361900	Shingle Kill at Cairo, NY	Lat 42°18'22", long 74°00'13", Greene County, Hydrologic Unit 02020006, at bridge on town road at Cairo, southeast of State Highway 32, about 400 ft south of State Highway 23, and 0.8 mi upstream from mouth.	13.9	1953, 1966-74, 1976-83	3-19-83	4.75	496
01362100	Roeliff Jansen Kill near Hillsdale, NY	Lat 42°09'14", long 73°31'14", Columbia County, Hydrologic Unit 02020006, at bridge on county highway off State Highway 22, 1.8 mi south of Hillsdale.	27.5	1958-60#, 1963-64, 1968-83	4-20-83	4.19	666
01362197	Bushnellsville Creek at Shandaken, NY	Lat 42°07'25", long 74°24'02", Ulster County, Hydrologic Unit 02020006, along State Highway 42, 0.4 mi upstream from Esopus Creek, and 0.6 mi northwest of Shandaken.	11.4	1951, 1956, 1972, 1976-83	3-20-83	8.45	382
01363388	Dry Brook at West Shokan, NY	Lat 41°58'22", long 74°17'50", Ulster County, Hydrologic Unit 02020006, at bridge on town road, 0.6 mi northwest of West Shokan, and 1.2 mi upstream from mouth.	1.67	1976, 1978-83	3-19-83	2.09	105
01373690	Woodbury Creek near Highland Mills, NY	Lat 41°22'00", long 74°06'17", Orange County, Hydrologic Unit 02020008, on left bank, 40 ft downstream from culvert type bridge on road to Atlantic Coast Aggregate Corp. plant, 1,200 ft downstream from bridge on State Highway 32, and 1.9 mi north of Highland Mills.	11.2	1966-68#, 1971-72, 1977-83	3-19-83	4.29	-

\* Operated as a continuous-record gaging station.

Annual maximum discharge at crest-stage partial-record stations during water year 1983--Continued

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Gage height (feet)	Dis- charge (ft <sup>3</sup> /s)
Hudson River basin--Continued							
01374130	Canopus Creek at Oscawana Corners, NY	Lat 41°22'43", long 73°52'23", Putnam County, Hydrologic Unit 02030101, at bridge on Hortun Hollow Road, 0.4 mi downstream from West Branch, and 0.8 mi west of Oscawana Corners.	8.30	1975-83	3-21-83	3.65	208
01374250	Peekskill Hollow Creek at Tompkins Corners, NY	Lat 41°23'18", long 73°48'47" Putnam County, Hydrologic Unit 02030101, at bridge on Bryant Pond Road, 0.9 mi southwest of Tompkins Corners, and 1.1 mi downstream from Wiccopee Brook.	14.9	1975-83	9-25-75 8-10-76 3-31-77 11- 8-77 1-25-79 4-10-80 5-16-81 1- 4-82 4-25-83	3.65 3.03 3.16 3.49 3.54 3.95 2.80 2.70 3.61	R540 R319 R358 R476 R512 R660 R260 R240 524
01376420	Saw Mill River at Elmsford, NY	Lat 41°03'19", long 73°49'16", Westchester County, Hydrologic Unit 02030101, at bridge on State Highway 119, 0.6 mi upstream from Rum Brook, and 0.8 mi downstream from Mine Brook at Elmsford.	15.4	1979-83	3-19-83	8.29	409
Passaic River basin							
01387410	Torne Brook at Ramapo, NY	Lat 41°08'34", long 74°09'44", Rockland County, Hydrologic Unit 02030103, 0.2 mi upstream from mouth, and 0.5 mi east of Ramapo.	2.60	1960, 1962-83	3-19-83	6.99	-
Delaware River basin							
01417185	Campbell Brook tributary near Downsville, NY	Lat 42°02'41", long 74°58'37", Delaware County, Hydrologic Unit 02040102, at culvert on Campbell Brook Road, 200 ft upstream from mouth, 2.0 mi southwest of Downsville Dam, and 2.7 mi southeast of Downsville.	.41	1975-83	4-16-83	2.00	12
01437345	Basher Kill tributary near Westbrookville, NY	Lat 41°30'34", long 74°32'36", Sullivan County, Hydrologic Unit 02040104, at culvert on town road, 0.2 mi upstream from mouth, and 1.0 mi northeast of Westbrookville.	1.07	1975-83	4-16-83	3.98	93
Streams tributary to Lake Ontario							
042490673	North Branch Grindstone Creek near Altmar, NY	Lat 43°29'31", long 76°05'41", Oswego County, Hydrologic Unit 04140102, at culvert on Hong Kong Road, 4.1 mi upstream from confluence with South Branch Grindstone Creek, and 4.1 southwest of Altmar.	11.2	1976-83	4-16-83	7.54	172
04256040	Mill Creek tributary near Lowville, NY	Lat 43°45'43", long 75°31'13", Lewis County, Hydrologic Unit 04150101, at culvert on West Road, 2.0 mi southwest of Lowville, and 2.2 mi upstream from mouth.	1.66	1976-83	10-15-82	<9.91	<68
04258700	Deer River at Deer River, NY	Lat 43°55'49", long 75°35'27", Lewis County, Hydrologic Unit 04150101, on left bank 350 ft upstream from bridge on State Highway 26 at Deer River, and 2 mi upstream from mouth.	94.8	1957-69*, 1977-83	12-16-82	4.09	3,230

b Ice jam.

\* Operated as a continuous-record gaging station.

R Revised.

Annual maximum discharge at crest-stage partial-record stations during water year 1983--Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (ft <sup>3</sup> /s)
Streams tributary to Lake Ontario--Continued							
04260575	Horse Creek tributary near Dexter, NY	Lat 44°04'47", long 76°03'28", Jefferson County, Hydrologic Unit 04150102, at bridge on Weaver Road, 0.3 mi upstream from mouth, 1.0 mi southwest of Reynolds Corners, and 5.1 mi north of Dexter.	4.59	1976-83	11- 6-82 10.22 2- 3-83 b11.52	-	118
Streams tributary to St. Lawrence River							
04263445	Birch Creek at Pierces Corners, NY	Lat 44°25'42", long 75°32'15", St. Lawrence County, Hydrologic Unit 04150303, at culver on Old State Road at Pierces Corners, 4.4 mi southeast of Pope Mills, and 11.1 mi upstream from mouth.	1.56	1977-83	4-16-83 3.55	-	50
04264300	Brandy Brook near Waddington, NY	Lat 44°49'42", long 75°09'32", St. Lawrence County, Hydrologic Unit 04150301, at bridge on Halfway House Road, 3.2 mi southeast of Waddington, and 4.4 mi upstream from mouth.	27.0	1959-63#, 1964-83	4-16-83 6.07	-	224
04265100	Elm Creek near Hermon, NY	Lat 44°26'15", long 75°12'49", St. Lawrence County, Hydrologic Unit 04150304, on left bank, 100 ft downstream from highway bridge, 2.3 mi south of Hermon, and 6.8 mi upstream from confluence with Tanner Creek.	32.6	1959-68#, 1969-83	11- 5-82 6.29 4-25-83 6.29	-	462
04267800	Trout Brook at Allen Corners, NY	Lat 44°47'34", long 75°02'01", St. Lawrence County, Hydrologic Unit 04150305, at abandoned bridge off State Highway 56A, at Allen Corners, and 2 mi southwest of Norfolk.	54.2	1959-63#, 1964-65, 1967-74, 1976-83	2- 4-83 b7.96 4-24-83 7.48	-	735
04268200	Plum Brook near Grantville, NY	Lat 44°52'46", long 74°54'54", St. Lawrence County, Hydrologic Unit 04150305, at bridge on Grant Road, 0.7 mi downstream from unnamed tributary, 1.1 mi upstream from mouth, 1.4 mi north of Grantville, and 2.3 mi southwest of Massena city limits.	43.9	1959-63#, 1964-68, 1971-83	4-25-83 4.69	-	431
04268720	Hopkinton Brook at Hopkinton, NY	Lat 44°40'59", long 74°41'58", St. Lawrence County, Hydrologic Unit 04150306, at bridge on town road, 0.4 mi upstream from unnamed tributary, 0.6 mi south of Hopkinton, and 2.0 mi upstream from mouth.	20.0	1961-69, 1971-74, 1976-83	11- 5-82 2.58 12-16-82 b3.29	-	356
04268800	West Branch St. Regis River near Parishville, NY	Lat 44°35'55", long 74°44'15", St. Lawrence County, Hydrologic Unit 04150306, at highway bridge, 4.1 mi downstream from Mud Pond Outlet, 4.2 mi southeast of Parishville, and 4.8 mi upstream from Niagara Mohawk Power Corp. dam.	171	1959-68#, 1969-83	2- 6-83 b3.54 4-26-83 3.52	-	1,410
04269050	Allen Brook near Brasher Falls, NY	Lat 44°48'07", long 74°43'41", St. Lawrence County, Hydrologic Unit 04150306, at bridge on U.S. Highway 11, 0.8 mi upstream from mouth, and 2.2 mi east of Brasher Falls.	16.0	1961-66#, 1967-74, 1976-83	11- 5-82 3.65 3-10-83 b3.92	-	270
04269100	Lawrence Brook near Moira, NY	Lat 44°50'20", long 74°35'46", Franklin County, Hydrologic Unit 04150306, at highway bridge, 2.4 mi northwest of Moira, and 5.4 mi upstream from mouth.	25.7	1959-60#, 1961-83	2- 4-83 b5.83 4-25-83 5.48	-	518

b Ice jam.

\* Operated as a continuous-record gaging station.



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations during water year 1983--Continued

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Gage height (feet)	Dis- charge (ft <sup>3</sup> /s)
Streams tributary to St. Lawrence River--Continued							
04270100	West Branch Deer Creek at Fort Covington Center, NY	Lat 44°56'49", long 74°28'51", Franklin County, Hydrologic Unit 04150307, at highway bridge, 0.8 mi west of Fort Covington Center, 2.1 mi upstream from East Branch, and 3.1 mi south of Fort Covington.	32.4	1962-74, 1976-83	11- 5-82	5.57	725
04270150	East Branch Deer Creek at Fort Covington Center, NY	Lat 44°56'53", long 74°27'50", Franklin County, Hydrologic Unit 04150307, at highway bridge, at Fort Covington Center, 1.9 mi upstream from West Branch, and 3.2 mi south of Fort Covington.	23.9	1961-62#, 1963-74, 1976-83	2- 3-83 8- 9-83	b5.65 4.57	- 406
04270162	East Branch Little Salmon River near Skerry, NY	Lat 44°47'13", long 74°22'12", Franklin County, Hydrologic Unit 04150307, at culvert on Adams Road, 100 ft downstream from Limekiln Brook, 1.1 mi northeast of Skerry, and 5.7 mi upstream from mouth.	7.11	1978-83	9-15-79 3-20-80 12- 9-80 10-28-81 5- 9-83	3.90 3.26 5.43 4.06 3.09	R118 R91 R183 R125 83
04270700	Trout River at Trout River, NY	Lat 44°59'23", long 74°17'56", Franklin County, Hydrologic Unit 04150307, at bridge on county highway, 0.2 mi east of State Highway 30, at Trout River, 0.5 mi upstream from international boundary, 1.5 mi downstream from unnamed tributary, and 3.3 mi downstream from Little Trout River.	107	1960-66#, 1967-83	4- 5-74 4-20-75 2-19-81 8-17-81 2- 3-83 5- 9-83	9.10 7.98 b7.19 6.94 b6.26 5.16	6,490 4,940 - 3,720 - 2,000
04273700	Salmon River at South Plattsburgh, NY	Lat 44°38'24", long 73°29'43", Clinton County, Hydrologic Unit 02010004, on left bank, at bridge on Salmon River Road, at South Plattsburgh, 0.4 mi west of State Highway 22, and 3.9 mi upstream from mouth.	61.9	1960-68#, 1969-83	2- 3-83 4-25-83	ab4.20 3.73	- 743
04274000	West Branch Ausable River near Lake Placid, NY	Lat 44°18'40", long 73°55'00", Essex County, Hydrologic Unit 02010004, on right bank, 4 mi northeast of Lake Placid, 4 mi downstream from Lake Placid outlet, and 150 ft upstream from Monument Falls.	116	1917, 1920-27, 1928-68#, 1983	5- 1-83	8.67	4,660

a Approximately.

b Ice jam.

# Operated as a continuous-record gaging station.

R Revised.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1983

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Hudson River basin						
01311992 Arbutus Lake Outlet	Fishing Brook	Lat 43°58'56", long 74°14'09", Essex County, Hydrologic Unit 02020001, at bridge on private road at outlet of dam, and 3.7 mi northwest of Newcomb.	1.22		11-23-82	1.38
					3-15-83	1.97
					4- 8-83	3.17
					4-13-83	5.89
					5- 3-83	12.4
					6-23-83	*.19
					7-27-83	.06
01311998 Woodruff Pond Outlet	Harris Lake	Lat 43°58'10", long 74°09'51", Essex County, Hydrologic Unit 02020001, at culvert on State Highway 28N, 0.5 mi downstream from Woodruff Pond, at Newcomb.	3.37	1982	11-23-82	8.66
					3-15-83	5.05
					4- 8-83	9.75
					5- 2-83	43.0
					6-23-83	*2.07
01316154 Clear Pond Outlet	The Branch	Lat 43°59'44", long 73°49'53", Essex County, Hydrologic Unit 02020001, at culvert on Elk Lake Road, 3.2 mi northwest of Blue Ridge, and 6.0 mi northwest of North Hudson.	2.19	1982	11-23-82	3.09
					3-15-83	1.70
					4-12-83	7.59
					5- 2-83	32.1
					5-17-83	7.63
					6-23-83	*1.87
					7-27-83	.34
01347260 Otter Lake Outlet	Green Lake	Lat 43°10'52", long 74°30'13", Fulton County, Hydrologic Unit 02020004, at a site along side a private road, just downstream from pond, and 0.6 mi northeast of Canada Lake.	1.58	1982	3-21-83	10.1
					6-20-83	1.58
					6-23-83	*.84
					6-27-83	3.92
01362189 Esopus Creek	Hudson River	Lat 42°01'46", long 74°24'53", Ulster County, Hydrologic Unit 02020006, along county road, 1.2 mi downstream from Winnisook Lake, and 3.4 mi southeast of Olivera.	1.96		4-27-83	25.8
					6- 1-83	8.45
					7-21-83	*.65
0136219205 Elk Bushkill	Esopus Creek	Lat 42°03'15", long 74°28'00", Ulster County, Hydrologic Unit 02020006, at bridge on dirt road, 2,500 ft upstream from mouth, and 0.8 mi south of Olivera.	3.75		4-27-83	36.9
					6- 1-83	15.8
					7-21-83	*1.01
0136219510 Esopus Creek	Hudson River	Lat 42°06'11", long 74°27'01", Ulster County, Hydrologic Unit 02020006, 800 ft upstream from State Highway 28 bridge, at Big Indian.	30.0		4-27-83	e372
					6- 1-83	96.4
					7-21-83	*12.1
0136219520 Birch Creek	Esopus Creek	Lat 42°09'12", long 74°27'45", Ulster County, Hydrologic Unit 02020006, at bridge on county road, 1.6 mi northeast of Highmount, and 1.7 mi northeast of Pine Hill.	2.58		4-27-83	25.1
					6- 1-83	4.16
					7-21-83	*.41
0136219540 Birch Creek	Esopus Creek	Lat 42°07'49", long 74°28'35", Ulster County, Hydrologic Unit 02020006, at bridge on old State Highway 28, 1,500 ft upstream from abandoned dam, and 2.4 mi upstream from mouth, at Pine Hill.	7.66		4-27-83	83.2
					6- 1-83	14.1
					7-21-83	*1.86
0136219560 Birch Creek	Esopus Creek	Lat 42°06'26", long 74°27'05", Ulster County, Hydrologic Unit 02020006, at bridge on county road, 1,450 ft upstream from bridge on State Highway 28, and 1,650 ft upstream from mouth, at Big Indian.	12.6		4-27-83	127
					6- 1-83	24.1
					7-21-83	*4.03
0136219650 Bushnellsville Creek	Esopus Creek	Lat 42°09'17", long 74°24'51", Ulster County, Hydrologic Unit 02020006, at bridge on State Highway 42, and 2,300 ft downstream from Angle Creek, at Bushnellsville.	7.25		4-27-83	92.1
					6- 1-83	15.0
					7-21-83	*1.14
0136219705 Bushnellsville Creek	Esopus Creek	Lat 42°07'15", long 74°23'58", Ulster County, Hydrologic Unit 02020006, along State Highway 42, 400 ft upstream from bridge, and 650 ft upstream from mouth, at Shandaken.	11.2		4-27-83	156
					6- 1-83	23.1
					7-21-83	*3.76

\* Base flow.

e Estimate.

Discharge measurements made at miscellaneous sites during water year 1983--Continued

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Hudson River basin--Continued						
#0136340105 Diversions from Ashokan Reservoir	Croton River	Lat 41°52'09", long 74°10'13", Ulster County, Hydrologic Unit 02020006, in Aqueduct Siphon House of the Catskill Aqueduct, 2.3 mi northeast of Kripplebush and 2.0 mi northwest of Stone Ridge.		1982	2- 1-83	449
					2- 2-83	496
						630
					2- 4-83	685
						528
					850	
					794	
					2-15-83	882
						782
Passaic River basin						
0138742503 Ramapo River	Pompton River	Lat 41°06'15", long 74°09'24", Bergen County, New Jersey, Hydrologic Unit 02030103, at mouth of Mahwah River, 0.5 mi southeast of New York State line, and 0.6 mi upstream of Highway 17 bridge.	93.8		10-14-81	*11.6
					5-18-82	*49.0
					10-13-82	*18.7
01387480 Mahwah River	Ramapo River	Lat 41°06'54", long 74°08'46", Rockland County, Hydrologic Unit 02030103, at bridge on State Highway 59 (Lafayette Boulevard), at Suffern.	20.8	1961-62*, 1963-65	10-13-82	*1.95
0138749208 Mahwah River	Ramapo River	Lat 41°06'15", long 74°09'22", Bergen County, New Jersey, Hydrologic Unit 02030103, at site at mouth of Mahwah River in West Mahwah, New Jersey, and 1,800 ft downstream from Masonicus Brook Tributary.	120		10-14-81	3.11
					5-18-82	23.7
					10-13-82	*4.60
Delaware River basin						
01421200 Cadosia Creek	East Branch Delaware River	Lat 41°58'03", long 75°15'51", Delaware County, Hydrologic Unit 02040102, at bridge on State Highway 236, 0.3 mi upstream from mouth, at Cadosia.	17.9	1949-50, 1955, 1957-71, 1973-82	5-19-83	*26.9
					6-22-83	*6.97
					7-26-83	*3.58
					8-25-83	*2.13
01426000 Oquaga Creek	West Branch Delaware River	Lat 42°03'35", long 75°25'40", Broome County, Hydrologic Unit 02040101, on left bank, 200 ft upstream from washed-out dam at rear of Delaware Mills, 400 ft upstream from Mill Street Bridge in Deposit, and 0.3 mi upstream from mouth.	67.6	1941-73*, 1975-76, 1979-82	5-19-83	*112
					6-22-83	*18.5
					7-14-83	*8.08
					7-26-83	*6.36
					8-25-83	*4.92
01427500 Callicoon Creek	Delaware River	Lat 41°45'39", long 75°02'55", Sullivan County, Hydrologic Unit 02040101, on right bank, 0.7 mi southeast of Callicoon, 0.9 mi upstream from mouth, and 1.0 mi west of Hortonville.	110	1941-82*	5-19-83	*105
					6-22-83	*53.9
					7-26-83	*37.2
01428000 Tenmile River	Delaware River	Lat 41°33'51", long 75°00'56", Sullivan County, Hydrologic Unit 02040101, on left bank 0.5 mi downstream from East Branch Tenmile River, 0.8 mi upststream from mouth, and 0.6 mi northeast of Tusten.	45.6	1946-73*, 1978-82	5-25-83	*62.2
					7-14-83	*8.19
					9- 9-83	*4.52
01434029 Biscuit Brook	West Branch Neversink River	Lat 41°59'19", long 74°30'11", Ulster County, Hydrologic Unit 02040104, at dam, 800 ft upstream from town road, and 0.2 mi upstream from mouth, at Frost Valley.	6.61		2-16-83	10.5
					3-10-83	34.1
					3-22-83	68.9
					4-28-83	90.4
					8- 9-83	*1.60
01438000 Neversink River	Delaware River	Lat 41°21'40", long 74°41'07", Orange County, Hydrologic Unit 02040104, at Tristates Bridge on East Main Street (U.S. Highway 6), in Port Jervis, 450 ft upstream from Clove Brook, and 0.6 mi upstream from mouth.	336	1902-03, 1943, 1945, 1960-62, 1965-82	11- 3-82	133
					3-30-83	1,260
					5-26-83	583
					6-24-83	251
					8- 1-83	124
					8-23-83	101

\* Base flow.

# Operated as a continuous-record gaging station.

# Measurements made to verify calibration of Venturi meter.

Discharge measurements made at miscellaneous sites during water year 1983--Continued

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements Date	Discharge (ft <sup>3</sup> /s)
Streams tributary to Lake Ontario						
04253628 Constable Creek	Big Moose Lake	Lat 43°49'28", long 74°50'05", Herkimer County, Hydrologic Unit 04150101, at site 0.2 mi upstream from town road, and 3.9 mi east of of Big Moose.	5.29		11-24-82 4- 7-83 4-22-83 5- 4-83 5- 5-83 6-23-83 7-28-83	19.8 6.68 14.8 47.8 37.2 *1.42 .28
04253640 West Pond Outlet	Big Moose Lake	Lat 43°49'02", long 74°52'50", Herkimer County, Hydrologic Unit 04150101, at culvert on town road, Road, 1.7 mi east of Big Moose.	.71	1982	4- 7-83 5- 4-83 6-21-83 6-23-83 7-27-83 9-15-83	1.03 3.41 .36 *.22 <.01 *.04
04253650 North Branch Moose River	Middle Branch Moose River	Lat 43°48'59", long 75°51'21", Herkimer County, Hydrologic Unit 04150101, at culvert on town road, just downstream from dam of Big Moose Lake, and 3.0 mi east of Big Moose.	36.9	1982	4- 5-83 5- 4-83 6-23-83 7-28-83 9-15-83	48.8 475 *22.2 4.25 *8.90
04253655 Townsend Pond Outlet	North Branch Moose River	Lat 43°48'30", long 74°51'05", Herkimer County, Hydrologic Unit 04150101, at culvert on Big Moose Road, just upstream from mouth, and 3.3 mi southeast of Big Moose.	.58	1982	4- 6-83 6-23-83	.62 *.09
04253660 Windfall Pond Outlet	North Branch Moose River	Lat 43°48'13", long 74°50'57", Herkimer County, Hydrologic Unit 04150101, at culvert on Big Moose Road, 0.9 mi west of Windfall Pond, and 3.4 mi southeast of Big Moose.	1.54	1982	4- 7-83 5- 4-83 6-22-83	3.05 13.1 *.40
04253680 North Branch Moose River	Middle Branch Moose River	Lat 43°47'32", long 74°52'31", Herkimer County, Hydrologic Unit 04150101, at trail crossing, 0.4 mi downstream from Dart Lake, and 2.6 mi southeast of Big Moose.	41.5	1982	4- 6-83 6-21-83 7-27-83 9-15-83 9-29-83	68.0 *31.9 6.89 *12.1 *17.1
04253713 Cascade Lake Outlet	Moss Lake	Lat 43°46'50", long 74°50'31", Herkimer County, Hydrologic Unit 04150101, at site 0.3 mi downstream from Big Moose Road at foot bridge, and 1.6 mi northwest of Eagle Bay.	2.94		11-24-82 4- 7-83 5- 5-83 6-23-83 7-28-83 9-29-83	7.84 4.70 19.9 *2.39 1.08 *.94
04253715 Moss Lake Tributary	Moss Lake	Lat 43°47'20", long 74°50'41", Herkimer County, Hydrologic Unit 04150101, at culvert on Big Moose Road, 2.0 mi northwest of Eagle Bay.	.50	1982	4- 7-83 5- 5-83 6-22-83 8-25-83	.67 2.79 *.21 .21
04253720 Moss Lake Outlet	North Branch Moose River	Lat 43°46'53", long 74°51'11", Herkimer County, Hydrologic Unit 04150101, at trail just downstream from Moss Lake, and 2.1 mi northwest of Eagle Bay.	4.82	1982	11-24-82 4- 7-83 5- 5-83 6-23-83 9-29-83	11.9 s7.70 43.3 *2.33 *4.34
04253740 Bubb Lake Outlet	Moss Lake Outlet	Lat 43°46'52", long 74°51'11", Herkimer County, Hydrologic Unit 04150101, at mouth just above Moss Lake Outlet, and 1.9 mi northwest of Eagle Bay.	1.02	1982	9-22-82 11-24-82 4- 7-83 5- 5-83 6-23-83 7-28-83	.35 1.55 1.17 5.55 *.66 .14
04253780 North Branch Moose River	Middle Branch Moose River	Lat 43°45'38", long 74°54'49", Herkimer County, Hydrologic Unit 04150101, at site just downstream from dam of Lake Rondaxe, and 4.8 mi southeast of Eagle Bay.	54.8	1982	4- 8-83 5- 4-83 6-22-83 7-27-83	90.0 630 *48.3 13.8
Streams tributary to St. Lawrence River						
04268385 Black Pond Outlet	Lower St. Regis Lake	Lat 44°25'56", long 74°17'53", Franklin County, Hydrologic Unit 04150306, staff gage on right bank, 62 ft upstream from dam on Black Pond, 70 ft upstream from Keese Mills Road, and 2.2 mi west of Paul Smiths.	1.44	1972-73, 1975, 1982	11-19-82 3-15-83 5- 3-83 6-23-83 7-27-83	1.85 1.50 7.29 *.57 .18
04273819 Heart Lake Outlet	MacIntyre Brook	Lat 44°10'48", long 73°58'00", Essex County, Hydrologic Unit 02010004, at trail crossing about 200 ft downstream from Heart Lake, and 4.3 mi southwest of North Elba.	.26	1982	11-19-82 3-15-83 5- 3-83 7-27-83	.26 .39 2.69 .07

\* Base flow.

s Discharge affected by seiche.



## HUDSON RIVER BASIN

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## Hickock Brook seepage investigation

A pair of discharge measurements were made during the 1983 water year, on August 10, along Hickock Brook in the village of Corinth, Saratoga County. The measurements were made at base flow to determine whether the pumping of 800 gal/min ( $1.76 \text{ ft}^3/\text{s}$ ) from a public supply well 120 ft away induced recharge from the stream. The permeability of a streambed controls stream loss where the underlying aquifer has a lower head or the stream is within the cone of influence of the pumping well. Heads were measured in the aquifer beneath the streambed by means of a drive point. The head in the aquifer was higher than the stream stage and responded to pumping influence. Indicated gain may be substantially in error as affected by small inaccuracies in open channel discharge measurements.

Distance from point perpendicular to stream from well (feet)	Measuring site	Meas. disch. ( $\text{ft}^3/\text{s}$ )	Gain or loss ( $\text{ft}^3/\text{s}$ )	Temp ( $^{\circ}\text{C}$ )
90	About 260 ft upstream from bridge on Hickock Street	0.201	--	11.0
145	30 ft upstream from bridge on Hickock Street	0.309	+0.108	11.0

## Mill Brook seepage investigation

A set of discharge measurements were made during the 1983 water year, on August 25, along Mill Brook and a tributary, Shaw Brook near the village of Millbrook, Dutchess County. The measurements were made during base flow to determine whether the pumping of 350 gal/min ( $0.77 \text{ ft}^3/\text{s}$ ) from a public supply gallery system 485 ft long parallel to and 100 ft distant from Mill Brook and crossing under Shaw Brook would induce recharge from the streams. The permeability of a streambed controls stream loss where the underlying aquifer has a lower head or the stream is within the cone of influence of the pumping well. Heads were measured in the aquifer beneath the streambed by means of a drive point. The head in the aquifer was lower than the stream stage. Indicated loss may be substantially in error as affected by small inaccuracies in open channel discharge measurements.

Stream	Measuring site in relation to station 013720835, Shaw Brook at mouth	Meas. disch. ( $\text{ft}^3/\text{s}$ )	Gain or loss ( $\text{ft}^3/\text{s}$ )	Temp ( $^{\circ}\text{C}$ )
Shaw Brook	75 ft upstream from mouth	0.243	--	19.5
Mill Brook	70 ft upstream from confluence with Shaw Brook	2.079	--	19.0
Mill Brook	120 ft downstream from confluence with Shaw Brook	1.831	-0.491	17.5

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	ALKA- LINITY FIELD (MG/L AS CAO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
HUDSON RIVER BASIN										
01362189 - ESOPUS CREEK NEAR OLIVERA NY (LAT 42 01 46 LONG 074 24 53)										
APR , 1983										
27...	1030	26	38	6.4	4.0	12.6	--	3.0	5.0	.28
JUN										
01...	0915	8.4	39	6.6	8.0	10.9	100	4.0	7.0	.17
JUL										
21...	0920	.65	50	6.8	12.0	9.4	94	7.0	6.0	.44
0136219205 - ELK BUSHKILL AT MOUTH AT OLIVERA NY (LAT 42 03 15 LONG 074 28 00)										
APR , 1983										
27...	1120	37	36	6.4	6.5	11.3	--	4.0	6.0	.55
JUN										
01...	1015	16	36	6.6	8.0	11.2	101	4.0	8.0	.35
JUL										
21...	1030	1.0	48	6.8	14.0	9.3	95	6.0	7.0	.80
0136219510 - ESOPUS CREEK AT BIG INDIAN NY (LAT 42 06 15 LONG 074 26 40)										
APR , 1983										
27...	1215	88	36	6.4	8.0	11.4	--	4.0	6.0	.24
JUN										
01...	1115	96	38	6.8	11.0	10.6	101	5.0	7.0	.12
JUL										
21...	1130	12	45	6.8	18.5	8.4	95	9.0	5.0	.06
0136219520 - BIRCH CREEK NEAR PINE HILL NY (LAT 42 09 12 LONG 074 27 45)										
APR , 1983										
27...	1330	25	36	6.4	7.0	--	--	4.0	5.0	.41
JUN										
01...	1210	4.2	40	6.8	10.5	10.3	99	6.0	7.0	.24
JUL										
21...	1230	.41	45	6.9	15.5	9.3	100	8.0	--	.39
0136219540 - BIRCH CREEK AT PINE HILL NY (LAT 42 07 49 LONG 074 28 35)										
APR , 1983										
27...	1410	83	52	6.7	7.5	--	--	6.0	6.0	.35
JUN										
01...	1310	14	75	7.0	10.5	10.4	99	11	8.0	.32
JUL										
21...	1330	1.9	105	7.0	17.5	8.4	93	17	6.0	.35
0136219560 - BIRCH CREEK AT MOUTH AT BIG INDIAN NY (LAT 42 06 27 LONG 074 27 05)										
APR , 1983										
27...	1500	127	51	6.8	8.5	10.9	--	6.0	6.0	.27
JUN										
01...	1410	24	72	7.3	12.0	10.6	104	12	8.0	.20
JUL										
21...	1420	4.0	107	7.6	23.0	8.2	101	18	--	.20
0136219650 - BUSHNELLSVILLE CREEK AT BUSHNELLSVILLE NY (LAT 42 09 17 LONG 074 24 51)										
APR , 1983										
27...	1610	92	48	6.5	6.5	--	--	4.0	7.0	.42
JUN										
01...	1510	15	50	6.8	8.5	11.4	103	7.0	9.0	.31
JUL										
21...	1530	1.1	52	6.8	13.5	9.4	96	9.0	7.0	.39

## ALBANY COUNTY

424114073495402. Local number, A 636.

LOCATION.--Lat 42°41'14", long 73°49'54", Hydrologic Unit 02020006, Fuller Road, Albany.

Owner: State University of New York at Albany.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 24 ft, cased to 22 ft, 2-in. jet point (60-gauge screen 22 ft to 24 ft). Well gravel packed from original depth of 26 ft.

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Altitude of land-surface datum is 260 ft, from topographic map. Measuring point: Top of casing, 2.40 ft above land-surface datum.

REMARKS.--Well was drilled May 1974 as a replacement for 424114073495401 (local number A 635), located 35 ft north, which has a period of record from November 1965 to May 1974 (unpublished).

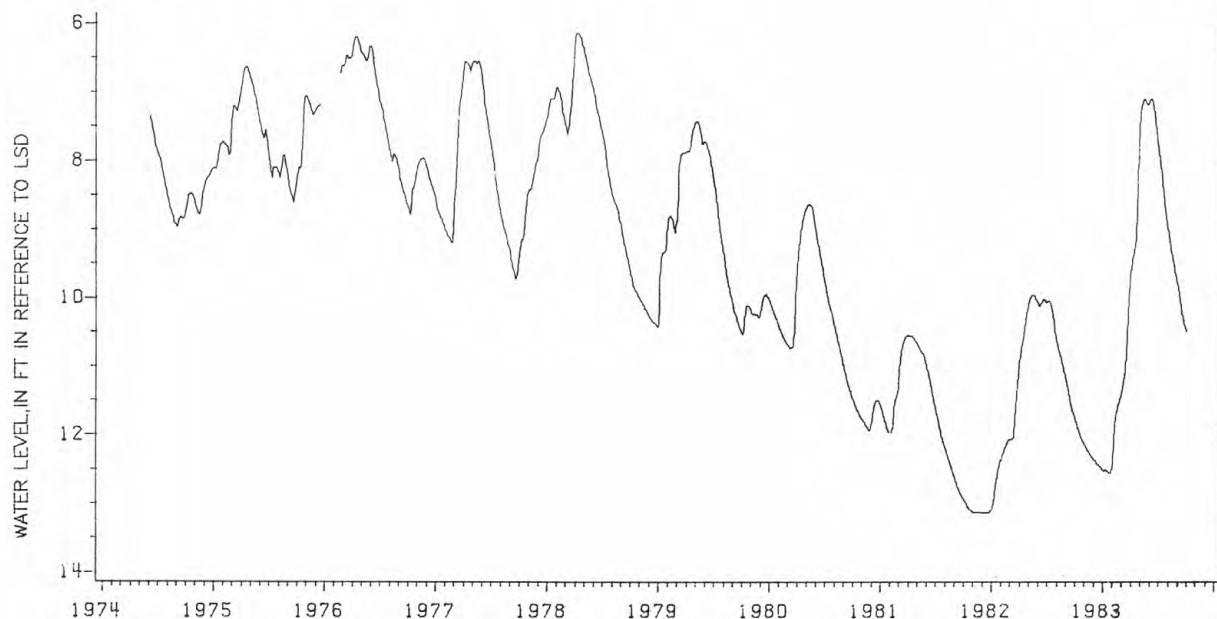
PERIOD OF RECORD.--May 1974 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.12 ft below land-surface datum, April 12, 13, 1978; lowest, 13.13 ft below land-surface datum, Oct. 29, Nov. 25, 26-Dec. 17, 18, 20, 21-22, 23, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.76	12.13	12.34	12.50	12.40	11.40	9.64	7.46	7.12	7.83	9.00	9.78
2	11.77	12.14	12.35	12.50	12.36	11.38	9.60	7.39	7.11	7.86	9.03	9.81
3	11.79	12.15	12.35	12.51	12.29	11.36	9.56	7.32	7.11	7.90	9.07	9.83
4	11.80	12.16	12.36	12.52	12.17	11.34	9.52	7.26	7.10	7.93	9.10	9.86
5	11.81	12.16	12.36	12.52	12.08	11.32	9.50	7.24	7.09	7.97	9.12	9.88
6	11.83	12.17	12.37	---	12.01	11.29	9.47	7.22	7.09	8.00	9.15	9.91
7	11.84	12.18	12.37	---	11.94	11.27	9.44	7.19	7.08	8.04	9.18	9.93
8	11.86	12.19	12.38	12.49	11.87	11.24	9.41	7.16	7.09	8.08	9.21	9.96
9	11.88	12.20	12.38	12.50	11.82	11.21	9.39	7.14	7.10	8.11	9.25	10.00
10	11.89	12.20	12.39	12.51	11.78	11.18	9.37	7.12	7.12	8.15	9.29	10.03
11	11.90	12.21	12.39	12.51	11.74	11.14	9.33	7.12	7.13	8.19	9.32	10.06
12	11.92	12.22	12.40	12.51	11.71	11.10	9.30	7.11	7.15	8.23	9.33	10.09
13	11.93	12.22	12.41	12.51	11.68	11.05	9.28	7.10	7.17	8.27	9.34	10.12
14	11.94	12.23	12.41	12.52	11.65	11.00	9.25	7.09	7.20	8.32	9.36	10.15
15	11.95	12.24	12.42	12.52	11.63	10.94	9.21	7.09	7.22	8.36	9.38	10.18
16	11.96	12.24	12.42	12.52	11.61	10.88	9.18	7.09	7.25	8.40	9.41	10.21
17	11.98	12.25	12.43	12.52	11.59	10.81	9.14	7.10	7.29	8.45	9.43	10.23
18	11.99	12.26	12.43	12.53	11.57	10.72	9.06	7.11	7.32	8.50	9.46	10.25
19	12.00	12.27	12.44	12.53	11.56	10.63	8.98	7.13	7.35	8.55	9.47	10.28
20	12.02	12.28	12.44	12.54	11.54	10.55	8.87	7.13	7.38	8.60	9.49	10.30
21	12.03	12.28	12.44	12.54	11.53	10.46	8.77	7.14	7.42	8.65	9.52	10.33
22	12.04	12.29	12.45	12.55	11.51	10.36	8.62	7.15	7.47	8.69	9.55	10.35
23	12.05	12.30	12.46	12.55	11.50	10.26	8.46	7.15	7.51	8.72	9.57	10.37
24	12.06	12.30	12.46	12.55	11.48	10.17	8.29	7.16	7.55	8.75	9.59	10.38
25	12.07	12.31	12.47	12.55	11.47	10.08	8.13	7.17	7.59	8.78	9.62	10.40
26	12.08	12.32	12.47	12.53	11.45	10.00	7.99	7.17	7.64	8.80	9.65	10.41
27	12.09	12.32	12.48	12.52	11.44	9.92	7.84	7.18	7.68	8.84	9.67	10.43
28	12.10	12.33	12.48	12.50	11.42	9.83	7.69	7.18	7.73	8.88	9.70	10.44
29	12.11	12.33	12.48	12.48	---	9.78	7.60	7.17	7.76	8.91	9.72	10.46
30	12.12	12.34	12.49	12.45	---	9.73	7.54	7.15	7.79	8.94	9.75	10.48
31	12.12	---	12.49	12.42	---	9.68	---	7.14	---	8.97	9.76	---

WTR YEAR 1983      HIGHEST      7.08 May 15, 16, June 6, 7, 8, 1983      LOWEST      12.55 Jan. 21, 22-24, 25, 1983



## ALBANY COUNTY

424044073535101. Local number, A 637.

LOCATION.--Lat 42°40'44", long 73°53'51", Hydrologic Unit 02020006, Dr. Shaw Road, Guilderland.

Owner: Mill Hill Missionaries.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 198 ft, cased to 193 ft, 30-slot plastic screen 193 ft to 198 ft.

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Altitude of land-surface datum is 220 ft, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.--Water level affected by pumping from distant municipal well field.

PERIOD OF RECORD.--September 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 111.11 ft below land-surface datum, Jan. 7, 1983; lowest measured, 126.55 ft below land-surface datum, September 27, 1978.

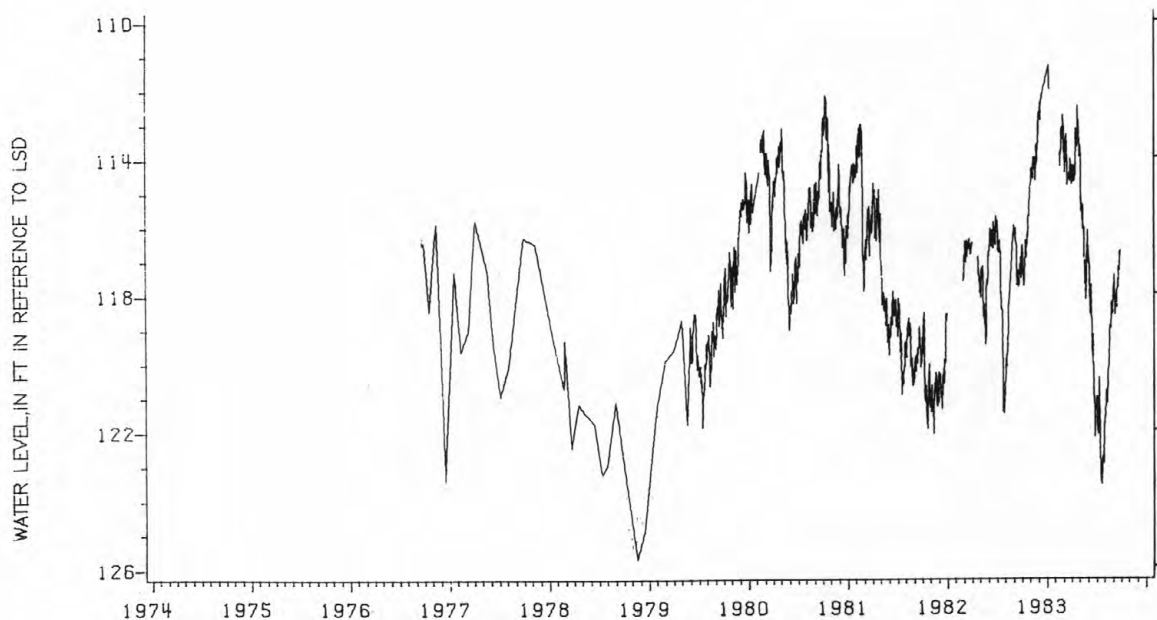
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117.02	114.82	113.20	---	---	113.11	114.38	113.90	116.56	121.33	121.73	118.10
2	116.84	114.64	113.27	---	---	112.73	114.73	113.55	116.57	120.99	121.79	118.02
3	116.58	114.54	113.04	---	---	113.10	114.29	113.59	117.06	121.29	121.57	118.01
4	116.51	114.31	112.65	---	---	113.25	114.18	113.60	116.69	120.97	121.56	117.82
5	117.11	114.31	112.60	---	---	113.71	114.57	114.68	117.16	120.98	121.34	117.57
6	117.17	114.53	112.37	---	---	114.17	114.46	115.13	117.64	121.26	121.17	117.41
7	117.69	114.46	112.80	111.25	---	114.39	114.65	115.53	117.52	121.74	120.91	118.03
8	117.47	114.27	112.88	111.55	---	114.12	---	115.08	117.98	122.04	120.79	118.24
9	117.69	114.43	112.68	111.89	---	114.10	114.57	115.04	118.11	121.55	120.93	118.57
10	117.65	114.57	112.49	---	---	113.74	---	115.78	118.55	121.13	120.99	118.26
11	117.32	114.23	112.16	---	---	113.91	---	115.85	118.26	120.77	121.15	118.00
12	117.38	113.95	112.15	---	---	113.44	114.21	115.63	117.86	120.41	120.79	118.02
13	117.27	113.95	---	---	---	113.28	114.64	116.05	117.68	121.03	120.68	118.18
14	116.75	114.13	---	---	---	113.76	114.47	115.77	118.44	121.90	120.42	118.10
15	116.40	113.98	---	---	---	113.69	---	115.34	118.91	122.16	120.22	118.36
16	116.47	114.17	---	---	---	114.22	---	115.88	119.61	122.00	120.02	118.19
17	116.74	114.01	---	---	---	114.78	113.61	116.05	119.62	122.57	119.90	117.89
18	116.87	114.14	---	---	113.93	---	113.27	116.86	119.77	123.05	119.64	117.72
19	116.74	114.65	---	---	114.20	---	113.39	116.78	119.43	123.13	119.40	117.54
20	116.45	114.55	---	---	114.13	---	113.12	117.15	119.18	123.43	119.03	117.76
21	116.21	114.41	---	---	113.64	---	113.25	117.30	119.77	123.52	119.26	117.37
22	116.27	114.12	---	---	113.33	---	113.63	117.66	120.34	123.30	118.92	117.16
23	116.22	113.73	---	---	113.18	---	---	117.31	120.49	123.19	118.93	117.20
24	116.20	113.59	---	---	113.09	114.44	---	117.82	120.89	123.19	118.94	117.26
25	115.85	114.07	---	---	113.40	114.40	112.42	118.12	121.29	123.05	118.90	117.07
26	115.69	113.75	---	---	113.43	114.66	112.87	117.81	121.88	122.73	118.45	116.76
27	115.67	113.76	---	---	113.35	114.29	112.89	117.85	122.13	122.85	118.20	116.73
28	115.49	113.48	---	---	113.06	114.00	113.04	117.50	121.94	122.64	118.52	116.84
29	115.27	112.88	---	---	---	114.06	113.54	116.98	121.69	122.92	118.46	116.74
30	115.17	113.18	---	---	---	114.50	113.43	116.36	121.32	122.58	118.53	116.73
31	115.04	---	---	---	---	114.27	---	116.10	---	122.15	118.23	---

WTR YEAR 1983

HIGHEST 111.11 Jan. 7, 1983

LOWEST 123.65 July 21, 1983





## DUTCHESS COUNTY

414737073563301. Local number, Du 321.

LOCATION.--Lat 41°47'37", long 73°56'33", Hydrologic Unit 02020008, near Hyde Park.

Owner: U.S. National Park Service.

AQUIFER.--Confined aquifer in shale of Ordovician age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 128 ft, cased to unknown depth, open hole.

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Altitude of land-surface datum is 170 ft, from topographic map. Measuring point: Top of extended casing, 3.10 ft above land-surface datum.

REMARKS.--Water level responds to semidiurnal earth tides (approximately 0.05 ft).

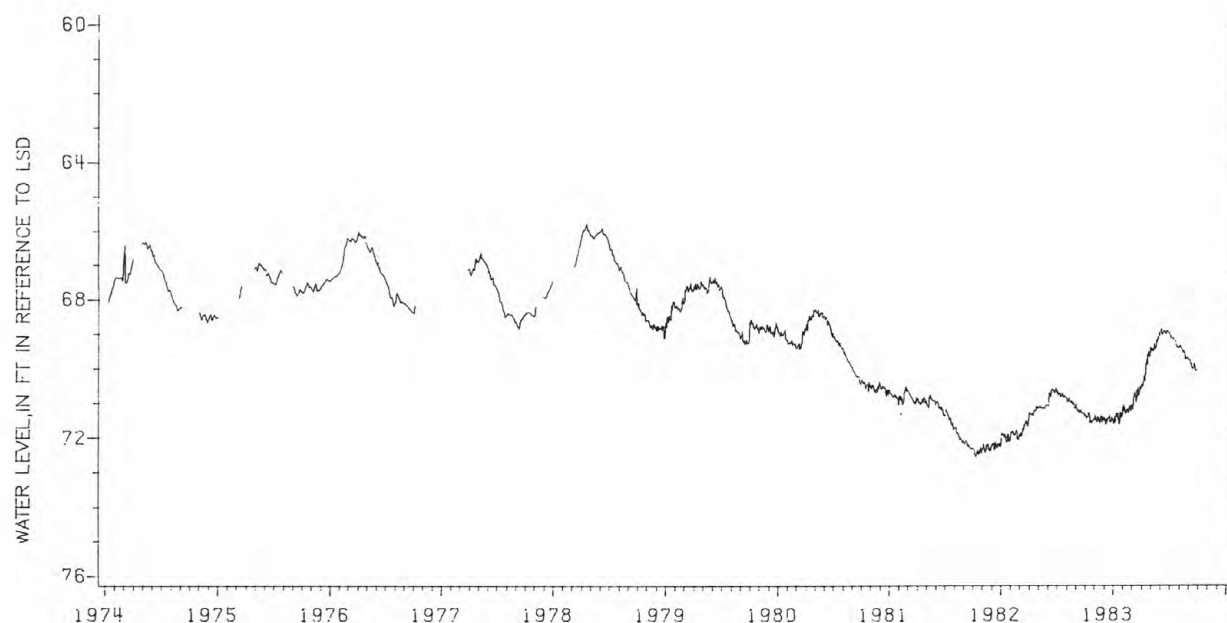
PERIOD OF RECORD.--September 1948 to April 1950, April 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.62 ft below land-surface datum, June 22, 1953; lowest, 73.85 ft below land-surface datum, Sept. 13, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71.34	71.46	71.43	71.51	71.31	71.18	70.57	69.64	68.94	68.96	69.37	69.67
2	71.32	71.44	71.47	71.48	71.32	71.07	70.57	69.60	68.98	68.95	69.35	69.71
3	71.32	71.43	71.51	71.46	71.15	71.01	70.52	69.49	69.03	68.97	69.38	69.73
4	71.32	71.44	71.46	71.53	71.04	71.05	70.44	69.39	68.96	68.99	69.40	69.75
5	71.35	71.36	71.43	71.59	71.10	71.12	70.47	69.37	68.89	68.98	69.41	69.75
6	71.40	71.39	71.40	71.51	71.22	71.17	70.51	69.43	68.90	68.99	69.38	69.73
7	71.43	71.46	71.43	71.41	71.19	71.11	70.52	69.49	68.86	69.04	69.32	69.71
8	71.40	71.48	71.53	71.40	71.11	71.03	70.49	69.48	68.84	69.11	69.30	69.76
9	71.36	71.50	71.57	71.48	71.15	70.91	70.46	69.42	68.92	69.12	69.31	69.82
10	71.39	71.54	71.58	71.55	71.23	70.84	70.42	69.43	68.99	69.09	69.36	69.84
11	71.41	71.55	71.50	71.38	71.30	70.79	70.23	69.46	69.02	69.09	69.39	69.83
12	71.40	71.49	71.44	71.28	71.27	70.71	70.20	69.47	69.00	69.10	69.37	69.84
13	71.39	71.38	71.45	71.32	71.28	70.68	70.27	69.46	68.97	69.09	69.39	69.87
14	71.32	71.39	71.50	71.40	71.26	70.74	70.34	69.42	68.93	69.11	69.45	69.92
15	71.26	71.41	71.52	71.40	71.18	70.79	70.34	69.37	68.92	69.11	69.49	69.97
16	71.25	71.45	71.46	71.29	71.19	70.87	70.24	69.28	68.90	69.09	69.51	70.00
17	71.34	71.48	71.39	71.28	71.20	70.94	70.01	69.29	68.91	69.09	69.51	69.98
18	71.46	71.51	71.44	71.34	71.18	70.95	69.90	69.36	68.91	69.14	69.48	69.97
19	71.54	71.54	71.44	71.42	71.20	70.81	69.86	69.43	68.91	69.18	69.46	69.97
20	71.57	71.57	71.37	71.52	71.25	70.68	69.75	69.42	68.92	69.22	69.47	69.99
21	71.50	71.52	71.33	71.58	71.28	70.63	69.76	69.36	68.95	69.23	69.50	69.95
22	71.49	71.46	71.40	71.59	71.23	70.54	69.83	69.31	68.98	69.20	69.53	69.84
23	71.53	71.40	71.49	71.51	71.15	70.57	69.89	69.22	68.98	69.21	69.56	69.85
24	71.56	71.35	71.52	71.30	71.08	70.65	69.82	69.17	68.96	69.20	69.65	69.94
25	71.55	71.41	71.53	71.24	71.07	70.71	69.60	69.18	68.92	69.19	69.71	70.03
26	71.50	71.47	71.47	71.27	71.12	70.76	69.50	69.20	68.94	69.24	69.73	70.05
27	71.49	71.48	71.50	71.35	71.19	70.77	69.57	69.15	68.96	69.30	69.69	70.03
28	71.49	71.52	71.48	71.39	71.22	70.61	69.62	69.13	68.92	69.34	69.67	70.03
29	71.48	71.41	71.40	71.38	---	70.53	69.64	69.14	68.89	69.38	69.65	70.05
30	71.47	71.37	71.43	71.35	---	70.57	69.66	69.08	68.93	69.39	69.65	70.04
31	71.47	---	71.51	71.30	---	70.60	---	68.97	---	69.38	69.66	---

WTR YEAR 1983      HIGHEST    68.82 June 8, 1983      LOWEST    71.60 Nov. 20, 1982, Jan. 5, 1983



## GROUND-WATER LEVELS

## DUTCHESS COUNTY

414128073475201. Local number, Du 1009.

LOCATION.--Lat 41°41'28", long 73°47'52", Hydrologic Unit 02020008, James Baird State Park, near Pleasant Valley.

Owner: New York State Department of Environmental Conservation.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation well, diameter 2.5 in., depth 28 ft in July 1979 (previously reported as 27 ft), cased to 25 ft, 1.25-in. well point (60-gauze screen 25 ft to 27 ft).

METHOD OF MEASUREMENT.--Taped by observer.

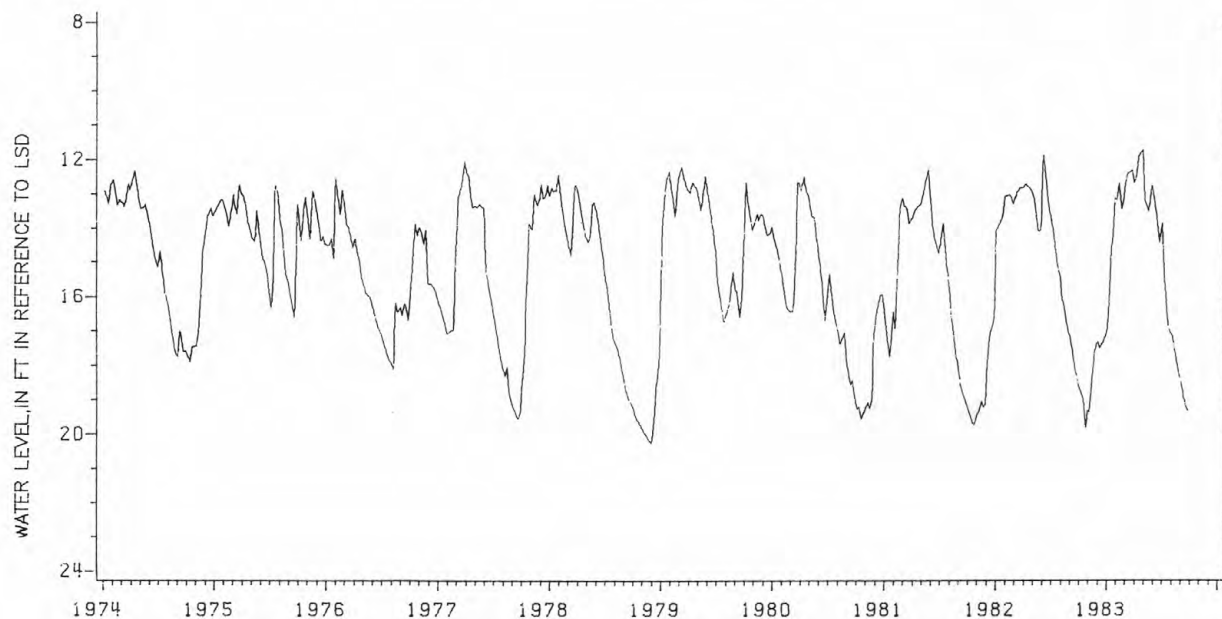
DATUM.--Altitude of land-surface datum is 330 ft, from topographic map. Measuring point: Top of casing, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--October 1965 to April 1969, June 1971 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.70 ft below land-surface datum, May 2, 1983; lowest measured, 20.60 ft below land-surface datum, Nov. 24, 1965.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1982	18.60	JAN 03, 1983	17.04	APR 11, 1983	12.50	JUL 18, 1983	15.95
12	18.81	10	16.48	18	11.90	27	16.80
18	18.95	17	14.60	25	11.80	AUG 01	17.00
25	19.81	24	14.15	MAY 02	11.70	08	17.15
NOV 01	19.29	31	13.09	09	13.15	15	17.50
08	19.32	FEB 08	13.17	23	13.50	22	17.85
16	18.29	14	12.65	31	12.75	29	18.20
23	17.62	22	13.43	JUN 06	12.95	SEP 06	18.55
29	17.40	28	13.17	13	13.30	12	18.85
DEC 06	17.30	MAR 07	12.66	20	13.85	19	19.15
13	17.45	14	12.38	27	14.40	26	19.30
20	17.36	28	12.29	JUL 04	13.85		
27	17.20	APR 04	12.64	11	15.25		



## GROUND-WATER LEVELS

217

## GREENE COUNTY

422319073482001. Local number, G 1.

LOCATION.--Lat 42°23'19", long 73°48'20", Hydrologic Unit 02020006, near West Cocksackie.

Owner: Harry Andrews.

AQUIFER.--Water-table aquifer in till of Pleistocene age.

WELL CHARACTERISTICS.--Dug domestic well, diameter 36 in., depth 17 ft in August 1983 (previously reported as 19 ft), tile-lined to 2 ft, stone-lined to 19 ft.

METHOD OF MEASUREMENT.--Taped by observer.

DATUM.--Altitude of land-surface datum is 130 ft, from topographic map. Measuring point: Chiseled square on top of inner step on curb, 0.18 ft below land-surface datum.

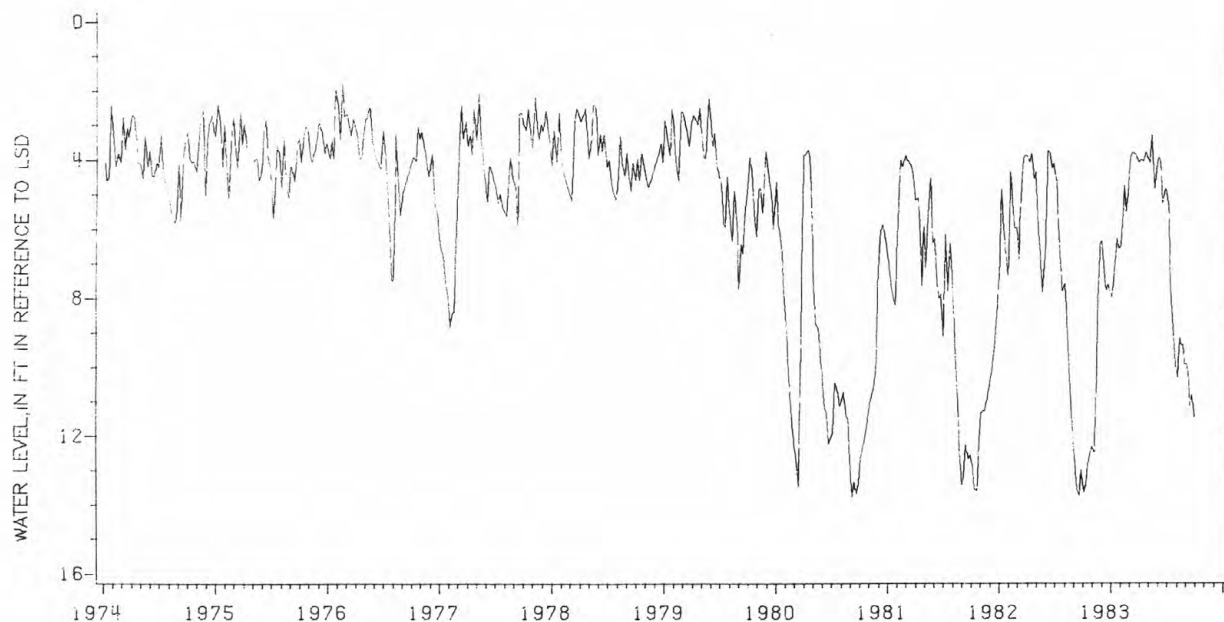
PERIOD OF RECORD.--December 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 1.07 ft below land-surface datum, Mar. 15, 1962; lowest measured 15.56 ft below land-surface datum, Feb. 27, 1963.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1982	13.63	JAN 11, 1983	7.45	APR 21, 1983	3.76	JUL 29, 1983	9.96
12	13.44	19	6.28	28	3.92	AUG 05	10.29
19	12.86	25	6.58	MAY 05	4.04	13	9.16
26	12.55	FEB 02	6.50	12	3.31	19	9.37
NOV 02	12.32	10	4.74	19	4.84	24	9.37
09	12.47	16	5.50	27	4.29	26	9.90
16	8.60	23	4.98	JUN 02	3.95	SEP 02	9.91
23	6.45	MAR 03	3.92	09	3.99	09	10.16
30	6.34	10	3.80	16	5.24	16	11.13
DEC 07	6.85	16	3.81	24	4.86	23	10.81
14	7.80	24	3.91	30	4.94	30	11.43
21	7.64	30	4.04	JUL 08	5.58		
28	7.80	APR 07	3.99	14	7.78		
JAN 05, 1983	7.96	14	4.03	21	8.65		

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

## HAMILTON COUNTY

432832074122201. Local number, H 3.

LOCATION.--Lat 43°28'32", long 74°12'22", Hydrologic Unit 02020002, near Griffin.

Owner: F. B. Girard.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation well, diameter 2.5 in., depth 16 ft as of July 1983, filled in from original depth of 19 ft, cased to 16 ft, 1.25-in. well point (60-gauze screen 16 ft to 19 ft, damaged during well installation).

METHOD OF MEASUREMENT.--Taped by USGS personnel.

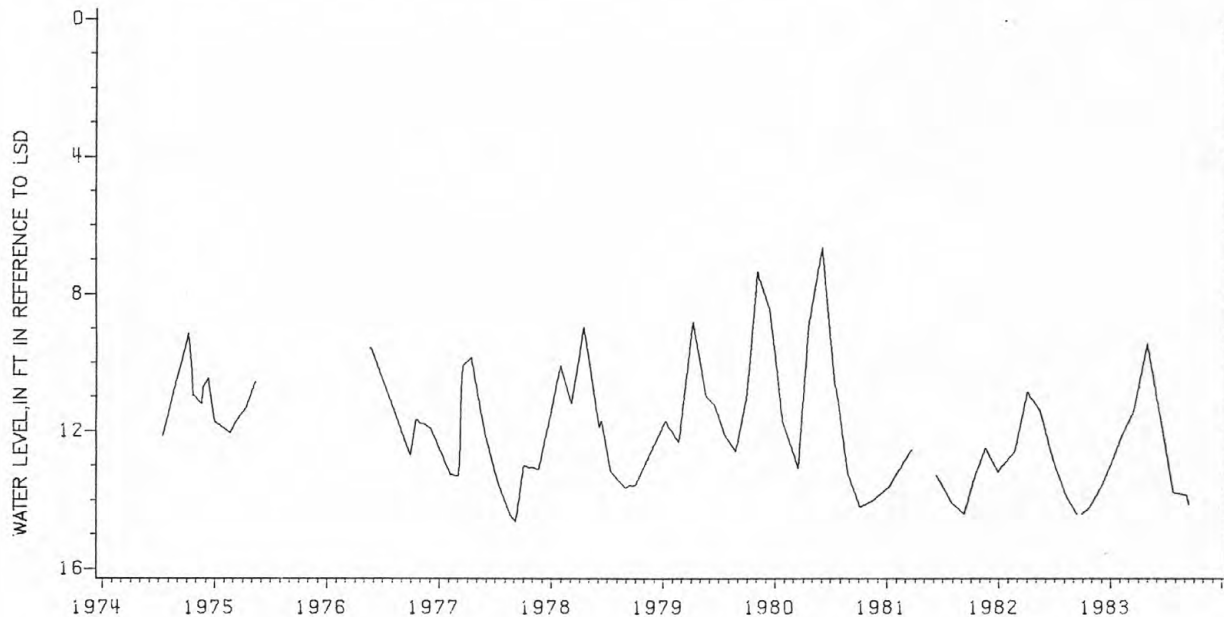
DATUM.--Altitude of land-surface datum is 1,290 ft, from topographic map. Measuring point: Top of casing, 2.30 ft above land-surface datum.

PERIOD OF RECORD.--November 1965 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.63 ft below land-surface datum, June 6, 1980; lowest measured, 15.44 ft below land-surface datum, Oct. 21, 1969.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1982	14.33	JAN 04, 1983	12.94	MAY 02, 1983	9.42	JUL 28, 1983	13.78
27	14.18	FEB 08	12.14	JUN 15	11.54	SEP 06	13.84
DEC 03	13.56	MAR 21	11.40	JUL 25	13.74	15	14.11





## GROUND-WATER LEVELS

219

## MONTGOMERY COUNTY

430141074423501. Local number, Mt 1.

LOCATION.--Lat 43°01'41", long 74°42'35", Hydrologic Unit 02020004, near St. Johnsville.

Owner: Keith Handy.

AQUIFER.--Water-table aquifer in till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 24 in., depth 12 ft, stone-lined.

METHOD OF MEASUREMENT.--Tape gage read by observer.

DATUM.--Altitude of land-surface datum is 710 ft, from topographic map. Measuring point: Top edge of limestone slab at northeast corner of well opening, at land-surface datum.

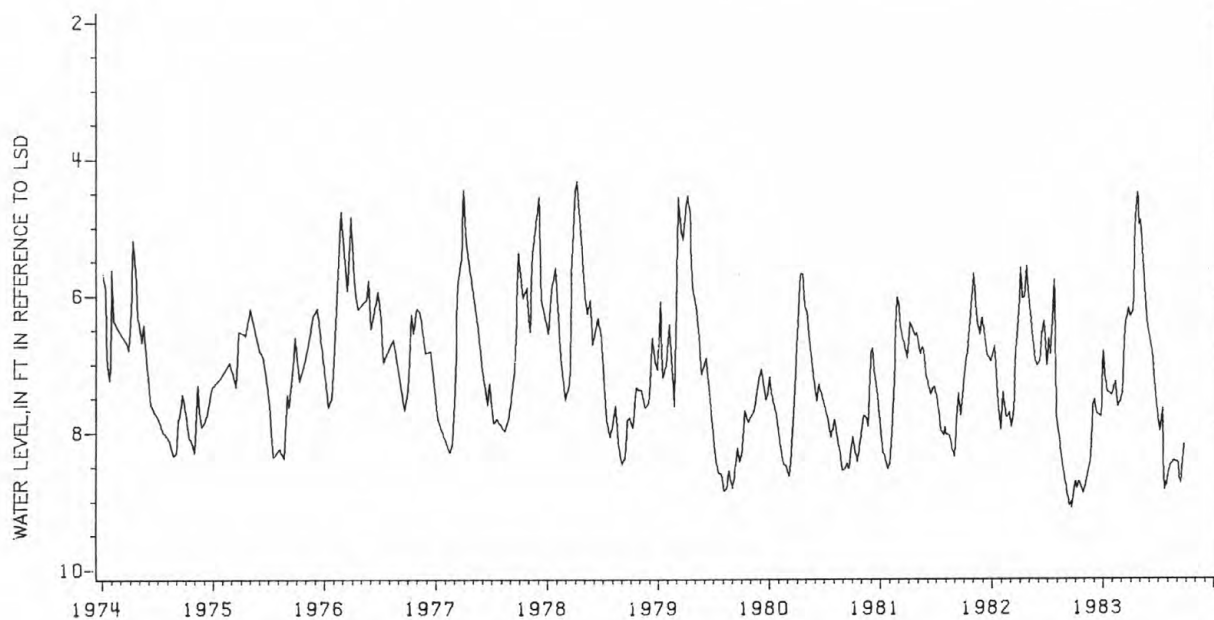
PERIOD OF RECORD.--October 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 3.74 ft below land-surface datum, Apr. 10, 1971; lowest measured 9.99 ft below land-surface datum, Aug. 28, 1949.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1982	8.72	JAN 16, 1983	7.40	APR 23, 1983	4.50	JUL 23, 1983	8.85
09	8.81	30	7.45	27	4.55	28	8.73 Z
16	8.70	FEB 12	7.26	30	4.96	30	8.78
30	8.90	20	7.62	MAY 07	4.92	AUG 06	8.59
NOV 20	8.36	27	7.53	23	6.19	13	8.48
27	7.60	MAR 07	7.42	29	6.45	20	8.41
DEC 04	7.52	14	6.45	JUN 11	6.83	SEP 03	8.43
11	7.73	26	6.18	18	7.17	08	8.45 Z
25	7.77	APR 02	6.31	27	7.56	11	8.66
JAN 01, 1983	6.80	09	6.24	JUL 09	7.99	17	8.74
08	7.16	18	4.85	16	7.65	24	8.18

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

## ONEIDA COUNTY

433112075091501. Local number, Oe 151.

LOCATION.--Lat 43°31'12", long 75°09'15", Hydrologic Unit 04150101, at Woodgate.

Owner: Henry Rubyor.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug domestic well, diameter 36 in., depth 31 ft, stone-lined.

METHOD OF MEASUREMENT.--Tape gage read by observer.

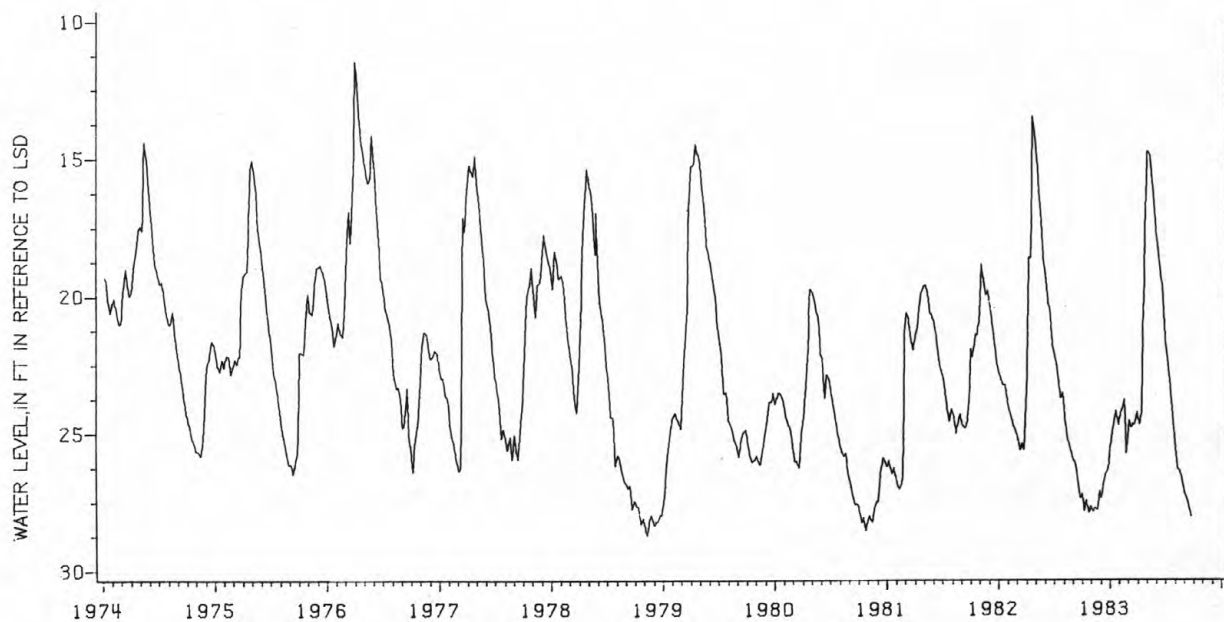
DATUM.--Land-surface datum is 1,484.94 ft National Geodetic Vertical Datum of 1929. Measuring point:  
Top of 2-ft square concrete well cover at midpoint of south side of rectangular opening, 1.00 ft  
above land-surface datum.

PERIOD OF RECORD.--July 1926 to August 1945, October 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 11.43 ft below land-surface datum, Apr. 3,  
1976; lowest measured 30.31 ft below land-surface datum, Feb. 25, 1961.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1982	27.25	JAN 01, 1983	25.55	APR 02, 1983	24.22	JUL 02, 1983	21.56
09	27.82	08	25.09	09	24.67	09	22.08
16	27.44	15	24.51	16	24.20	16	23.13
23	27.88	22	24.20	23	19.98	23	23.85
30	27.68	29	24.72	30	16.87	30	24.60
NOV 06	27.82	FEB 05	24.24	MAY 07	14.75	AUG 06	25.54
13	27.73	12	24.08	14	14.82	13	26.26
20	27.76	19	23.78	21	15.56	20	26.40
27	27.10	26	25.75	28	16.61	27	26.68
DEC 04	27.36	MAR 05	24.53	JUN 04	17.62	SEP 03	27.17
11	26.80	12	24.78	11	18.55	10	27.35
18	26.49	19	24.69	18	19.23	17	27.52
27	26.28	26	24.64	25	19.64	24	28.02



## ONEIDA COUNTY

433012075134202. Local number, Oe 766.

LOCATION.--Lat 43°30'12", long 75°13'42", Hydrologic Unit 04150101, near Hawkinsville.

Owner: New York State Department of Environmental Conservation.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Driven-washed observation well, diameter 6 in., depth 31 ft, filled in from original depth of 33 ft, cased to 33 ft, open end.

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Land-surface datum is 1,190.22 ft National Geodetic Vertical Datum of 1929. Measuring point: Top of extended casing, 2.63 ft above land-surface datum.

REMARKS.--Well was driven-washed November 1968 as a replacement for 433012075134201 (local number Oe 765), located 15 ft east, which has a period of record from November 1965 to November 1968 (unpublished).

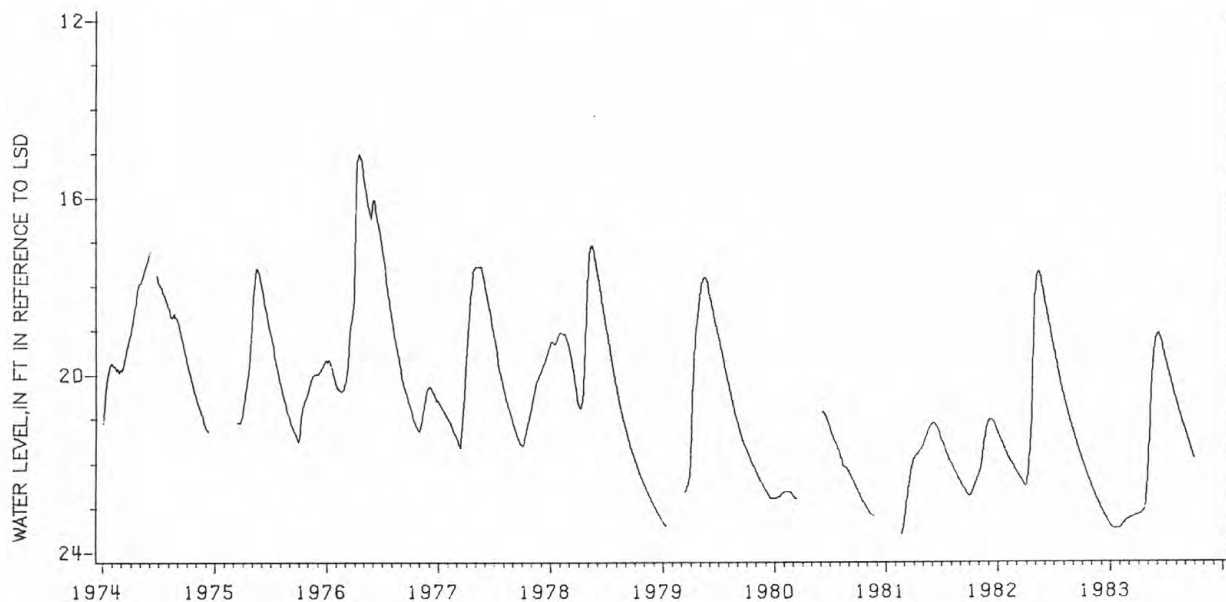
PERIOD OF RECORD.--November 1968 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.87 ft below land-surface datum, May 21, 1972; lowest recorded, 23.58 ft below land-surface datum, Feb. 20, 21, 22, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.89	22.48	22.98	23.37	23.44	23.24	23.15	22.45	19.11	19.68	20.51	21.25
2	21.90	22.50	22.99	23.38	23.44	23.24	23.15	22.34	19.10	19.70	20.54	21.27
3	21.92	22.52	23.00	23.40	23.43	23.24	23.14	22.23	19.09	19.74	20.57	21.29
4	21.94	22.54	23.02	23.40	23.43	23.24	23.14	22.11	19.07	19.76	20.59	21.31
5	21.96	22.55	23.03	23.41	23.43	23.23	23.14	21.97	19.06	19.79	20.62	21.33
6	21.98	22.56	23.05	23.42	23.42	23.22	23.14	21.83	19.06	19.82	20.63	21.35
7	22.00	22.57	23.06	23.42	23.40	23.22	23.13	21.65	19.06	19.86	20.66	21.37
8	22.02	22.59	23.07	23.44	23.40	23.22	23.13	21.47	19.06	19.88	20.67	21.40
9	22.04	22.62	23.09	23.44	23.39	23.21	23.13	21.29	19.10	19.90	20.70	21.43
10	22.07	22.63	23.10	23.44	23.38	23.21	23.12	21.10	19.12	19.92	20.74	21.44
11	22.09	22.64	23.11	23.44	23.37	23.21	23.11	20.90	19.13	19.95	20.76	21.46
12	22.10	22.66	23.13	23.45	23.36	23.21	23.11	20.72	19.15	19.98	20.78	21.48
13	22.12	22.69	23.15	23.45	23.35	23.21	23.11	20.55	19.16	20.00	20.81	21.50
14	22.14	22.71	23.16	23.45	23.33	23.20	23.10	20.39	19.18	20.03	20.84	21.52
15	22.16	22.72	23.17	23.45	23.33	23.20	23.08	20.24	19.20	20.05	20.86	21.55
16	22.18	22.74	23.18	23.45	23.32	23.20	23.08	20.12	19.22	20.07	20.88	21.57
17	22.20	22.76	23.20	23.45	23.31	23.20	23.07	20.01	19.26	20.10	20.90	21.58
18	22.22	22.78	23.21	23.46	23.31	23.19	23.07	19.92	19.29	20.13	20.92	21.61
19	22.24	22.79	23.22	23.46	23.30	23.18	23.06	19.82	19.32	20.17	20.95	21.63
20	22.26	22.81	23.23	23.46	23.30	23.18	23.05	19.71	19.36	20.19	20.97	21.65
21	22.28	22.82	23.25	23.46	23.29	23.17	23.04	19.64	19.40	20.21	21.00	21.67
22	22.30	22.83	23.26	23.46	23.27	23.17	23.03	19.56	19.43	20.23	21.02	21.69
23	22.32	22.84	23.27	23.45	23.26	23.17	23.00	19.47	19.45	20.26	21.05	21.72
24	22.34	22.86	23.28	23.45	23.26	23.17	22.95	19.42	19.47	20.28	21.07	21.74
25	22.35	22.88	23.29	23.45	23.26	23.17	22.92	19.36	19.50	20.31	21.10	21.77
26	22.37	22.89	23.30	23.45	23.26	23.17	22.87	19.31	19.54	20.35	21.11	21.78
27	22.39	22.91	23.32	23.45	23.26	23.16	22.80	19.27	19.56	20.38	21.13	21.80
28	22.41	22.92	23.32	23.45	23.25	23.15	22.71	19.23	19.60	20.41	21.15	21.83
29	22.43	22.94	23.34	23.45	---	23.15	22.62	19.19	19.64	20.44	21.18	21.85
30	22.45	22.96	23.36	23.44	---	23.15	22.53	19.15	19.67	20.46	21.20	21.87
31	22.46	---	23.37	23.44	---	23.15	---	19.13	---	20.49	21.23	---

WTR YEAR 1983      HIGHEST    19.06 June 4, 5-7, 8, 1983      LOWEST    23.46 Jan. 18, 19-22, 23, 1983



## GROUND-WATER LEVELS

## ORANGE COUNTY

411933074150801. Local number, O 104.

LOCATION.--Lat 41°19'33", long 74°15'08", Hydrologic Unit 02020008, near Chester.

Owner: Palisades Interstate Park Commission.

AQUIFER.--Water-table aquifer in limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 70 ft in October 1979 (previously reported as 98 ft), cased to 73 ft, open end.

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Altitude of land-surface datum is 445 ft, from topographic map. Measuring point: Top of extended casing, 4.49 ft above land-surface datum.

REMARKS.--Water-level fluctuations show hydraulic response to high flow in Seeley Brook, 500 ft west.

PERIOD OF RECORD.--September 1964 to June 1974, February 1975 to August 1976, October 1978 to current

year. Records for the 1977 water year, published in WDR NY-77-1, are unreliable and should not be used. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.12 ft below land-surface datum, Apr. 26, 1983; lowest, 16.70 ft below land-surface datum, Sept. 19, 20, 21, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.07	16.08	---	15.40	14.46	---	12.09	11.54	13.78	15.05	16.06	16.41
2	16.09	16.08	---	15.40	14.46	---	12.30	11.89	13.87	15.10	16.09	16.43
3	16.10	16.09	---	15.40	13.88	12.97	12.27	12.15	13.94	15.17	16.12	16.46
4	16.11	16.09	---	15.40	13.54	12.67	12.22	12.39	13.83	15.24	16.15	16.49
5	16.13	---	---	15.40	13.51	12.49	12.35	12.63	13.74	15.27	16.16	16.51
6	16.14	---	---	15.40	13.52	12.50	12.46	12.84	13.79	15.27	16.16	16.54
7	16.15	---	---	15.39	13.53	12.44	12.55	13.01	13.70	15.33	16.18	16.56
8	16.14	---	---	15.38	13.55	12.34	12.59	13.14	13.72	15.38	16.20	16.59
9	16.08	---	15.57	15.40	13.55	11.81	12.50	13.25	13.80	15.43	16.22	16.61
10	16.06	---	15.58	15.40	13.55	11.49	12.29	13.40	13.86	15.48	16.26	16.59
11	16.08	---	15.60	14.93	---	11.20	11.32	13.53	13.92	15.54	16.27	16.57
12	16.08	---	15.61	14.61	---	11.03	10.98	13.65	13.99	15.58	16.10	16.61
13	16.08	---	15.65	14.58	---	10.95	11.14	13.75	14.07	15.62	15.98	16.64
14	16.04	---	15.68	14.59	---	11.01	11.46	13.85	14.15	15.66	16.03	16.64
15	16.02	---	15.70	14.59	---	11.23	11.77	13.94	14.23	15.70	16.09	16.64
16	16.04	---	15.63	14.59	---	11.54	11.47	13.96	14.31	15.70	16.13	16.66
17	16.06	---	15.43	14.60	---	11.85	9.87	13.89	14.37	15.74	16.17	16.66
18	16.08	---	15.40	14.60	---	12.06	9.34	13.99	14.44	15.79	16.21	16.67
19	16.09	---	15.40	14.61	---	11.05	9.72	14.07	14.50	15.82	16.22	16.69
20	16.09	---	15.40	14.61	---	10.36	10.02	14.11	14.55	15.83	16.25	16.70
21	16.10	---	15.41	14.61	---	10.09	10.13	14.16	14.61	15.84	16.28	16.69
22	16.11	---	15.43	14.61	---	9.81	9.90	14.22	14.67	15.79	16.32	16.50
23	16.12	---	15.45	14.61	---	10.06	9.88	14.11	14.73	15.84	16.35	16.44
24	16.12	---	15.45	14.57	---	10.54	9.97	14.15	14.80	15.81	16.38	16.45
25	16.10	---	15.40	14.50	---	11.02	9.50	14.23	14.87	15.76	16.41	16.47
26	16.05	---	15.38	14.46	---	11.47	9.16	14.27	14.95	15.81	16.43	16.49
27	16.04	---	15.39	14.46	---	11.80	9.42	13.87	15.00	15.86	16.45	16.51
28	16.05	---	15.40	14.46	---	11.46	10.02	13.77	15.02	15.91	16.46	16.54
29	16.06	---	15.39	14.46	---	11.61	10.62	13.79	14.88	15.96	16.47	16.55
30	16.07	---	15.40	14.46	---	11.77	11.13	13.76	14.97	16.00	16.42	16.49
31	16.07	---	15.40	14.46	---	11.92	---	13.73	---	16.03	16.42	---

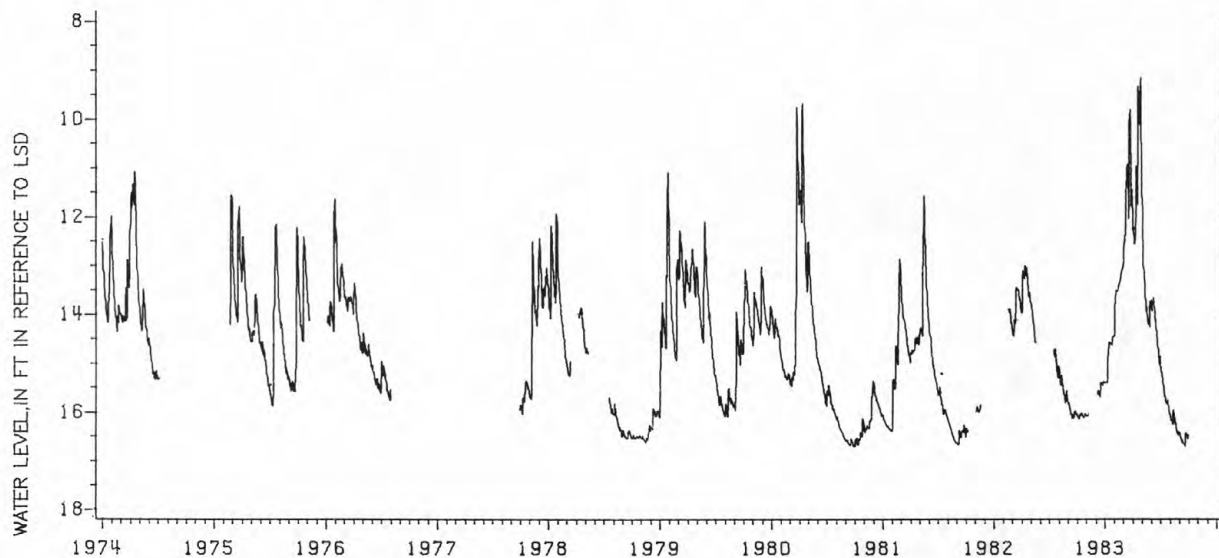
WTR YEAR 1983

HIGHEST

9.12 Apr. 26, 1983

LOWEST

16.70 Sept. 19, 20, 21, 1983





## GROUND-WATER LEVELS

223

## PUTNAM COUNTY

412450073413101. Local number, P 609.

LOCATION.--Lat 41°24'50", long 73°41'31", Hydrologic Unit 02030101, near Carmel.

Owner: New York City Board of Water Supply.

AQUIFER.--Water-table aquifer in till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in., depth 16 ft, stone-lined.

METHOD OF MEASUREMENT.--Taped by observer.

DATUM.--Altitude of land-surface datum is 540 ft, from topographic map. Measuring point: Top (north side) of 3-in. coupling set in concrete well cover, at land-surface datum.

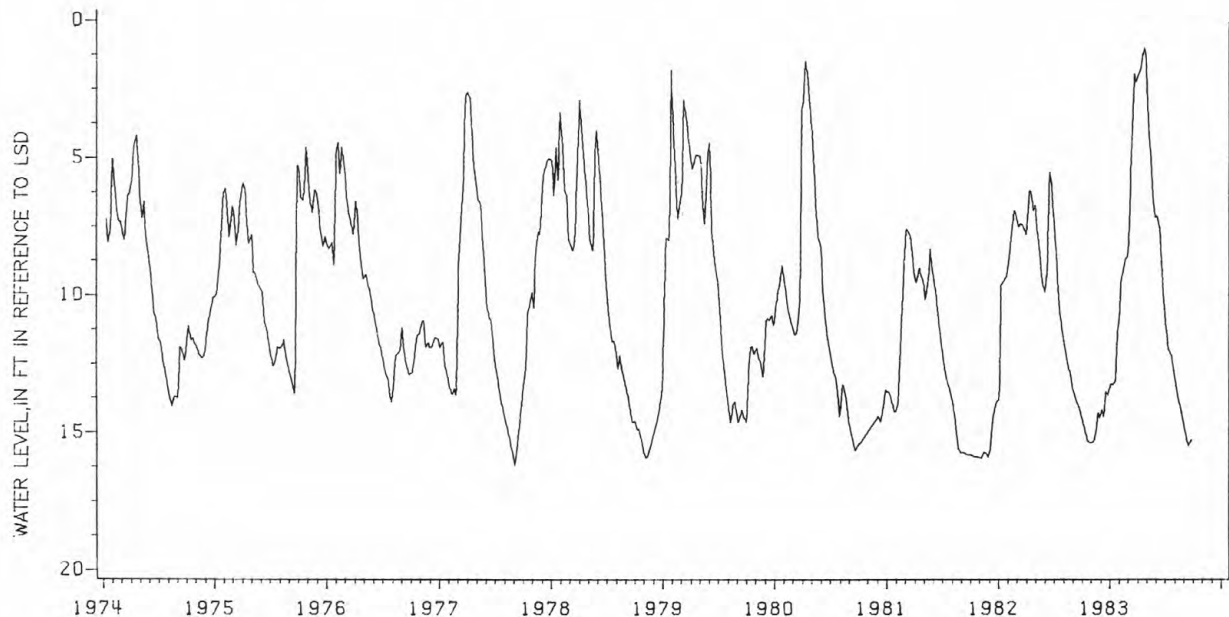
REMARKS.--Original depth measured at 17 ft. Depth measured at 16.6 ft October 1979, filled in to 16 ft September 1981.

PERIOD OF RECORD.--January 1935 to September 1945, September 1950 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.0 ft below land-surface datum, Oct. 19, 1955 and Apr. 24, 1983; lowest measured, dry Nov. 1, 30, 1935, Jan. 7, 1936, Sept. 1, 1939, several days in 1953, 1957, 1964, 1966, 1978, Sept. 25, 1980, several days in 1981, 1982.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1982	14.60	JAN 01, 1983	13.25	APR 09, 1983	1.80	JUL 11, 1983	11.97
09	14.80	09	13.25	17	1.20	23	12.25
17	15.30	17	13.15	24	1.00	30	12.80
24	15.35	25	11.35	28	1.20	AUG 06	13.25
30	15.40	30	10.90	MAY 07	3.65	13	13.70
NOV 06	15.35	FEB 06	9.50	14	5.10	20	14.20
14	15.20	20	8.70	21	6.40	27	14.50
21	14.30	27	8.55	30	7.15	SEP 05	14.95
28	14.45	MAR 06	6.80	JUN 04	7.10	10	15.25
DEC 06	14.20	13	3.90	11	7.55	17	15.50
12	14.40	20	1.90	18	8.80	24	15.25
18	13.55	27	2.25	25	9.95		
26	13.65	APR 03	1.90	JUL 02	10.98		



## GROUND-WATER LEVELS

## RENSSELAER COUNTY

423834073391001. Local number, Re 700.

LOCATION.--Lat 42°38'34", long 73°39'10", Hydrologic Unit 02020006, near Defreestville.

Owner: William P. Hofmann.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug domestic well, diameter 4 ft, depth 16 ft, stone-lined.

METHOD OF MEASUREMENT.--Taped by observer.

DATUM.--Altitude of land-surface datum is 405 ft, from topographic map. Measuring point: Top edge of concrete curbing at midpoint of north side of rectangular opening, 2.00 ft above land-surface datum.

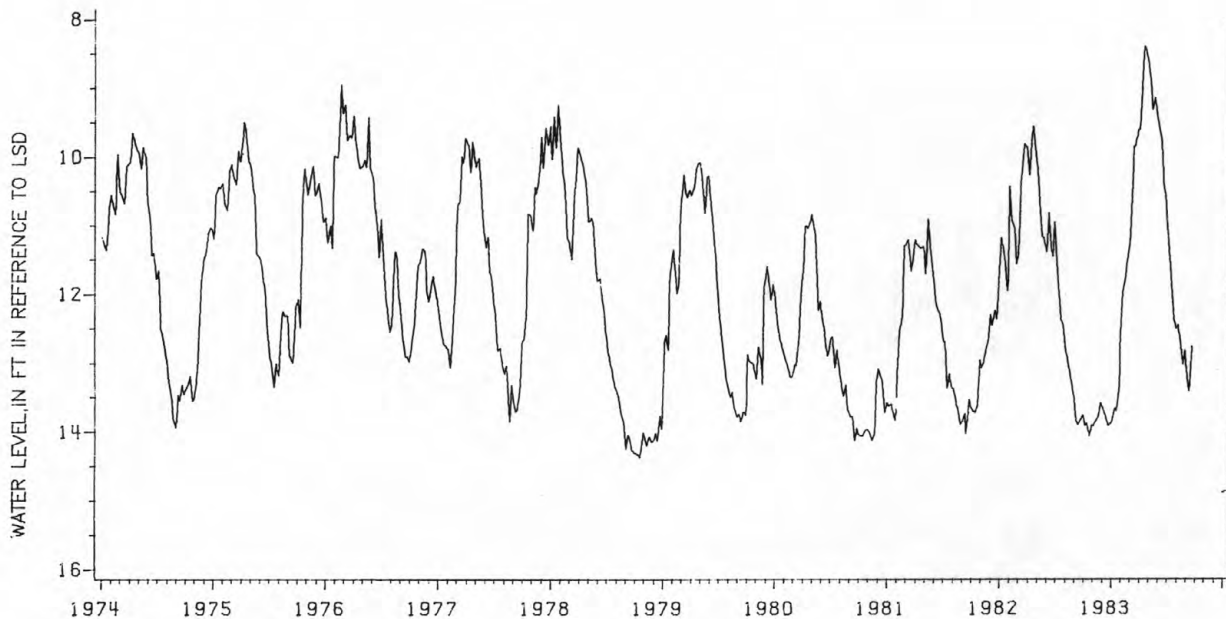
PERIOD OF RECORD.--September 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 8.38 ft below land-surface datum, Apr. 23, 1983; lowest measured 15.49 ft below land-surface datum, Oct. 3, 1964.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1982	13.75	JAN 01, 1983	13.88	APR 09, 1983	9.59	JUL 16, 1983	11.60
09	13.91	08	13.79	17	8.80	23	12.00
16	13.87	15	13.65	23	8.38	30	12.38
22	14.00	22	13.69	30	8.41	AUG 06	12.49
23	14.05	29	13.30	MAY 08	8.66	13	12.45
30	13.90	FEB 05	12.40	14	8.90	20	12.76
NOV 06	13.91	12	11.96	21	9.31	27	13.03
13	13.83	19	11.80	28	9.13	SEP 02	12.80
20	13.76	26	11.55	JUN 05	9.44	10	13.20
26	13.57	MAR 05	11.27	11	9.58	17	13.42
DEC 05	13.63	13	10.57	20	9.78	24	12.76
11	13.73	19	9.85	25	10.38		
18	13.80	25	9.82	JUL 02	10.56		
24	13.89	APR 03	9.60	09	11.01		

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

225

## RENSSELAER COUNTY

423225073430501. Local number, Re 702.

LOCATION.--Lat 42°32'25", long 73°43'05", Hydrologic Unit 02020006, near Brookview.

Owner: Nicholas J. Bult.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation well, diameter 2.5 in., depth 16 ft, cased to 13 ft, 1.5-in. well point (60-gauze screen 13 ft to 16 ft).

METHOD OF MEASUREMENT.--Taped by USGS personnel.

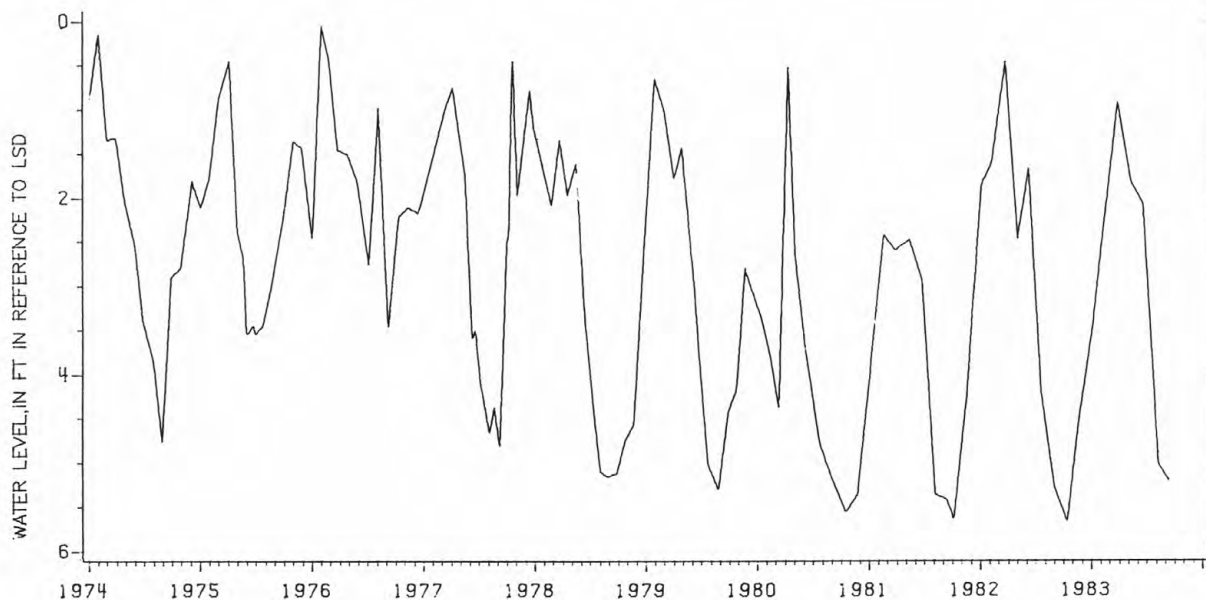
DATUM.--Altitude of land-surface datum is 175 ft, from topographic map. Measuring point: Top of casing, 3.30 ft above land-surface datum.

PERIOD OF RECORD.--November 1965 to current year. Records prior to October 1977 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.03 ft above land-surface datum, November 29, 1972; lowest measured, 6.42 ft below land-surface datum, September 22, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14, 1982	5.67	FEB 15, 1983	2.14	MAY 12, 1983	1.81	AUG 08, 1983	5.02
NOV 22	4.51	MAR 30	0.92	JUN 20	2.07	SEP 14	5.20
JAN 04, 1983	3.52						



## GROUND-WATER LEVELS

## RENSSELAER COUNTY

423534073423401. Local number, Re 703.

LOCATION.--Lat 42°35'34", long 73°42'34", Hydrologic Unit 02020006, in East Greenbush.

Owner: Town of East Greenbush.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 80 ft, cased to 78 ft, 50-slot plastic screen 78 ft to 80 ft.

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Altitude of land-surface datum is 275 ft, from topographic map. Measuring point: Top of flange, 2.9 ft above land-surface datum.

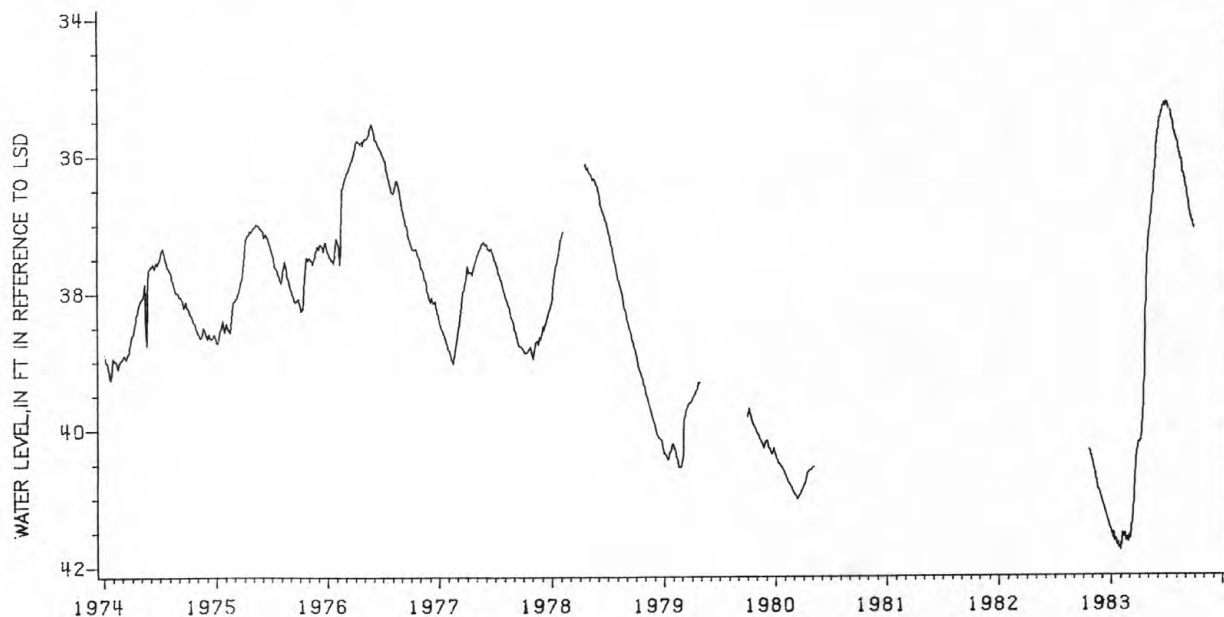
REMARKS.--Well was drilled October 1982 as a replacement for 423532073423701 (local number Re 701), located about 300 ft southwest and 15.8 ft lower in land-surface datum, which has a period of record from March 1961 to May 1980. Hydrograph shows water levels plotted for Re 701 (through 1980) adjusted to altitude of water levels plotted for Re 703. Water level may be affected by nearby pumping.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 35.21 ft below land-surface datum, July 1, 2, 1983; lowest recorded, 41.77 ft below land-surface datum, Feb. 1, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	40.45		---	41.76	41.59	40.19	37.49	35.77	35.22	35.71	36.39
2	---	40.47		---	41.73	41.55	40.21	37.38	35.74	35.22	35.74	36.41
3	---	40.49		---	41.66	41.58	40.18	37.27	35.70	35.26	35.76	36.43
4	---	40.51		---	41.69	41.60	40.19	37.22	35.63	35.24	35.77	36.46
5	---	40.53		41.52	41.70	41.60	40.20	37.19	35.61	35.23	35.79	36.47
6	---	40.57		41.50	41.64	41.56	40.18	37.19	35.56	35.28	35.79	36.49
7	---	40.58		41.51	41.54	41.52	40.17	37.13	35.52	35.33	35.81	36.52
8	---	40.59		41.57	41.51	41.49	40.15	37.06	35.50	35.31	35.82	36.57
9	---	40.62		41.60	41.53	41.45	40.15	37.04	35.51	35.27	35.86	36.60
10	---	40.66		41.59	41.56	41.40	40.11	37.00	35.47	35.30	35.91	36.61
11	---	40.65		41.52	41.56	41.35	40.03	36.95	35.45	35.33	35.91	36.63
12	---	40.63		41.58	41.54	41.29	39.98	36.89	35.42	35.32	35.91	36.67
13	---	40.69		41.62	41.57	41.23	39.92	36.83	35.40	35.34	35.96	36.72
14	---	40.73		41.64	41.52	41.18	39.86	36.77	35.39	35.37	35.98	36.75
15	---	40.74		41.61	41.51	41.12	39.78	36.70	35.37	35.36	36.00	36.79
16	---	40.79		41.60	41.57	41.06	39.73	36.67	35.38	35.36	36.02	36.81
17	---	40.80		41.62	41.57	40.98	39.65	36.64	35.36	35.41	36.03	36.81
18	---	40.84		41.63	41.59	40.88	39.53	36.61	35.32	35.44	36.03	36.85
19	---	40.87		41.66	41.62	40.76	39.37	36.55	35.28	35.48	36.06	36.88
20	---	40.88		41.68	41.64	40.72	39.21	36.46	35.28	35.49	36.07	36.90
21	---	40.88		41.69	41.61	40.65	39.01	36.42	35.29	35.48	36.12	36.91
22	40.30	40.89		41.70	41.60	40.56	38.80	36.37	35.28	35.49	36.13	36.90
23	40.31	40.88		41.66	41.57	40.48	38.60	36.29	35.26	35.52	36.18	36.93
24	40.33	40.89		41.65	41.57	40.42	38.41	36.25	35.23	35.52	36.24	36.96
25	40.33	---		41.70	41.60	40.37	38.26	36.20	35.25	35.56	36.26	36.97
26	40.35	---		41.73	41.64	40.36	38.10	36.14	35.29	35.60	36.26	36.96
27	40.38	---		41.74	41.65	40.32	37.94	36.10	35.26	35.64	36.27	36.98
28	40.39	---		41.73	41.62	40.26	37.80	36.02	35.28	35.66	36.30	37.02
29	40.41	---		41.72	---	40.27	37.70	35.93	35.27	35.69	36.33	37.05
30	40.43	---		41.72	---	40.25	37.59	35.84	35.25	35.69	36.34	37.06
31	40.45	---		41.73	---	40.21	---	35.79	---	35.71	36.35	---
WTR YEAR 1983	HIGHEST		35.21	July 1, 2, 1983		LOWEST	41.77		Feb. 1, 1983			





## GROUND-WATER LEVELS

227

## ROCKLAND COUNTY

411802073593001. Local number, Ro 18.

LOCATION.--Lat 41°18'02", long 73°59'30", Hydrologic Unit 02030101, in Bear Mountain State Park near Lemon Road and Seven Lakes Drive.

Owner: Palisades Interstate Park Commission.

AQUIFER.--Confined aquifer in Storm King Granite of Precambrian age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 60 ft, cased to 53 ft, open hole.

METHOD OF MEASUREMENT.--Tape gage read by observer.

DATUM.--Altitude of land-surface datum is 390 ft, from topographic map. Measuring point: Top of extended casing, 3.65 ft above land-surface datum.

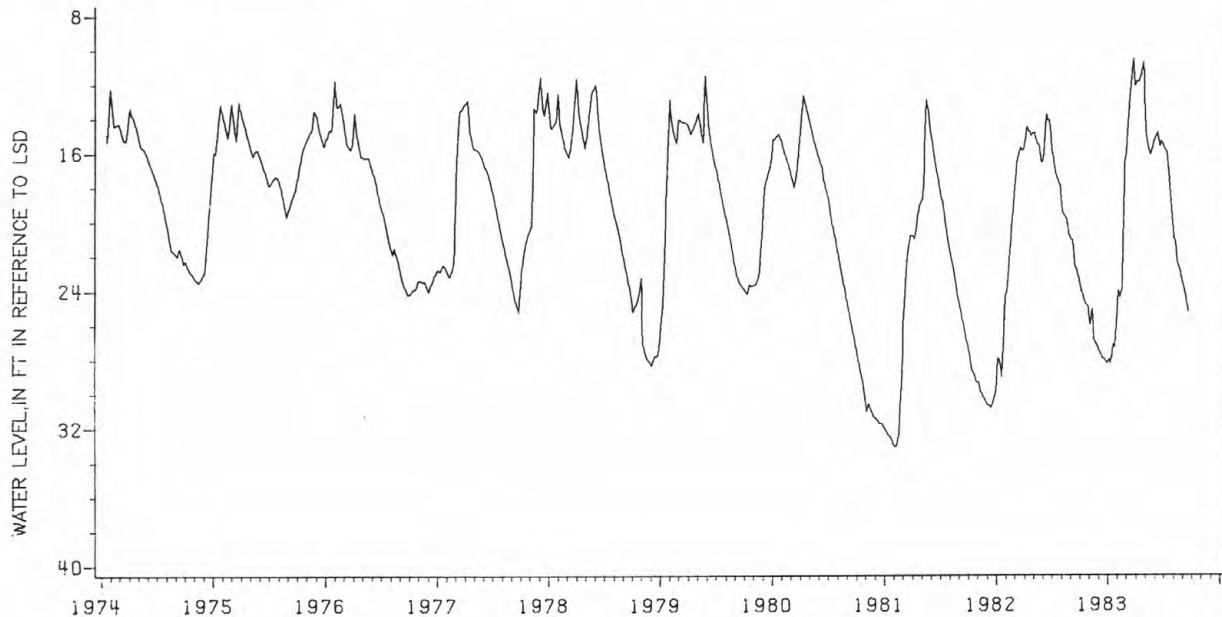
PERIOD OF RECORD.--July 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 10.48 ft below land-surface datum, March 25, 1983; lowest measured 33.02 ft below land-surface datum, Feb. 6, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	23.45	DEC 23, 1982	28.02	MAR 18, 1983	12.02	JUN 11, 1983	14.80
07	23.99	31	28.19	25	10.48	21	15.61
08	24.03	JAN 07, 1983	28.03	APR 01	12.05	25	15.41
15	24.43	14	28.21	08	11.89	JUL 15	15.95
22	24.71	21	27.10	15	11.75	AUG 06	20.95
29	24.93	28	27.23	22	11.31	12	21.25
NOV 05	25.97	FEB 04	23.98	27	10.77	19	22.40
13	25.02	11	24.34	29	10.73	26	22.86
19	26.85	18	23.84	MAY 06	14.78	SEP 02	23.50
27	27.18	25	16.80	13	15.81	09	23.96
DEC 03	27.39	MAR 02	15.91	20	16.08	16	24.59
10	27.64	04	15.91	27	15.71	23	25.17
17	27.89	11	13.13	JUN 04	15.21		

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

## ST. LAWRENCE COUNTY

444904074455201. Local number, St 40.

LOCATION.--Lat 44°49'04", long 74°45'52", Hydrologic Unit 04150306, near Brasher Falls.

Owner: New York State Department of Environmental Conservation.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in., depth 12 ft, concrete cased to 12 ft, open end.

METHOD OF MEASUREMENT.--Tape gage read by observer.

DATUM.--Altitude of land-surface datum is 300 ft, from topographic map. Measuring point: Chisled mark on top edge of 6-in. by 8-in. opening of concrete well cover, 0.65 ft above land-surface datum.

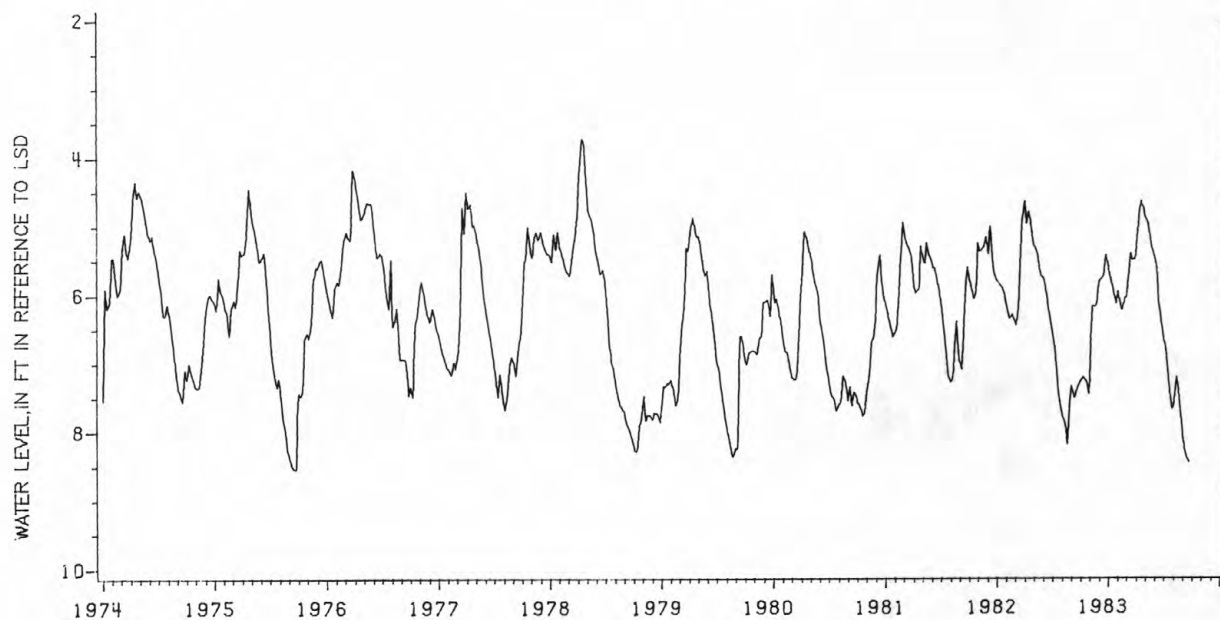
PERIOD OF RECORD.--May 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 3.24 ft below land-surface datum, Apr. 21, 1971; lowest measured 9.38 ft below land-surface datum, Oct. 24, 1964.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1982	7.27	JAN 02, 1983	5.51	APR 03, 1983	5.50	JUL 03, 1983	6.59
09	7.24	09	5.73	10	5.15	10	6.80
16	7.19	16	5.82	17	4.76	17	7.13
23	7.29	22	5.92	24	4.63	23	7.41
31	7.45	30	6.14	MAY 02	4.78	31	7.68
NOV 06	6.63	FEB 05	5.95	07	4.87	AUG 07	7.62
14	6.16	13	6.14	15	4.93	14	7.20
22	6.18	19	6.23	22	5.15	20	7.43
27	6.12	27	6.07	28	5.34	28	7.77
DEC 04	5.83	MAR 06	6.02	JUN 06	5.46	SEP 04	8.05
12	5.78	12	5.74	12	5.61	11	8.25
19	5.72	20	5.40	19	6.10	17	8.38
26	5.42	26	5.50	26	6.36	25	8.46

E Estimate.



## SARATOGA COUNTY

430327073475401. Local number, Sa 529.

LOCATION.--Lat 43°03'27", long 73°47'54", Hydrologic Unit 02020003, at Saratoga Springs.

Owner: Saratoga Springs Authority, New York State.

AQUIFER.--Confined aquifer in dolomite of Ordovician age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 304 ft, cased to 189 ft, open hole.

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Altitude of land-surface datum is 305 ft, from topographic map. Measuring point: Top of casing, 3.38 ft above land-surface datum.

REMARKS.--Water level affected by earthquakes and distant pumping.

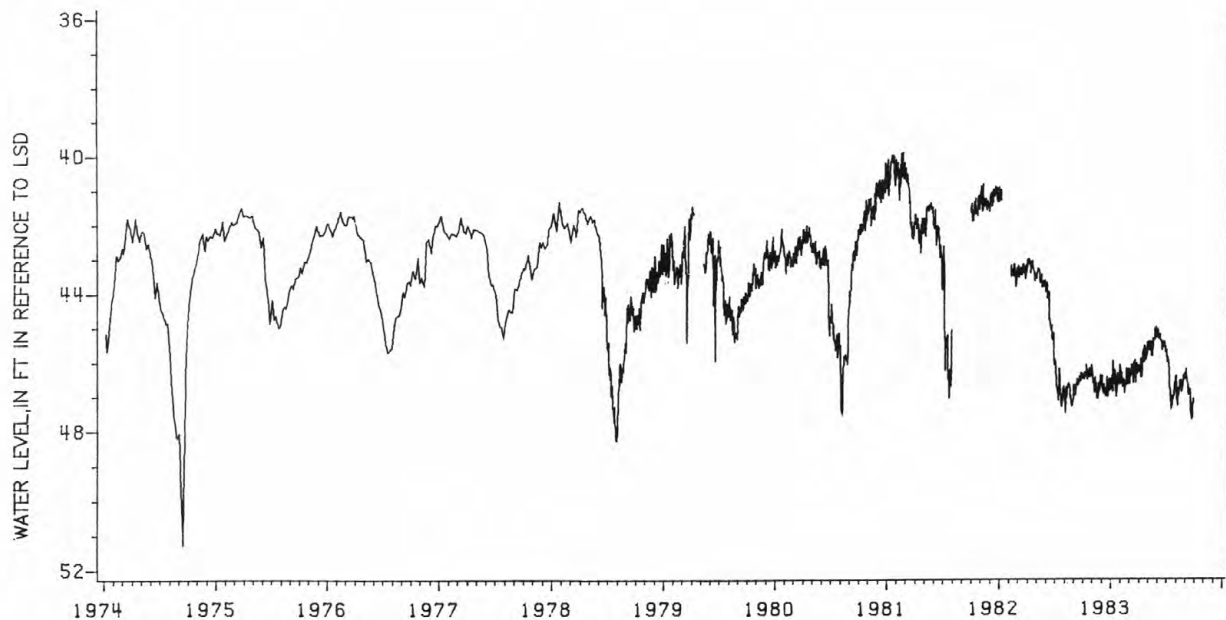
PERIOD OF RECORD.--May 1949 to November 1961, August 1964 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 39.70 ft below land-surface datum, Jan. 7, 1981; lowest, 56.20 ft below land-surface datum, July 29, 1949.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.32	46.05	46.59	46.53	46.61	46.29	46.22	45.84	45.06	45.50	46.59	46.45
2	46.40	46.06	46.67	46.45	46.47	46.16	46.29	45.67	45.21	45.54	46.39	46.48
3	46.34	46.29	46.62	46.48	46.02	46.30	46.10	45.44	45.26	45.65	46.41	46.41
4	46.38	46.35	46.47	46.76	46.20	46.48	46.05	45.38	45.10	45.64	46.38	46.35
5	46.48	46.33	46.51	46.60	46.56	46.61	46.13	45.50	45.18	45.61	46.40	46.29
6	46.44	46.54	46.37	46.43	46.60	46.55	46.18	45.61	45.12	45.76	46.33	46.17
7	46.39	46.58	46.71	46.33	46.30	46.38	46.15	45.53	45.01	45.96	46.78	46.16
8	46.26	46.54	46.87	46.56	46.26	46.37	46.13	45.38	45.08	45.97	47.23	46.33
9	46.27	46.66	46.86	46.82	46.43	46.28	46.27	45.43	45.27	45.85	47.10	46.45
10	46.42	46.84	46.81	46.61	46.63	46.17	46.14	45.50	45.26	45.90	47.07	46.46
11	46.37	46.72	46.62	45.91	46.70	46.18	45.88	45.60	45.27	46.01	46.88	46.53
12	46.26	46.42	46.64	46.17	46.62	46.04	46.12	45.63	45.27	46.05	46.73	46.65
13	46.29	46.49	46.79	46.48	46.61	46.02	46.39	45.57	45.24	46.18	46.85	46.73
14	46.17	46.73	46.83	46.61	46.48	46.14	46.38	45.50	45.18	46.63	46.81	46.84
15	46.03	46.61	46.91	46.44	46.62	46.21	46.22	45.38	45.15	46.74	46.76	46.94
16	46.12	46.72	46.74	46.21	46.85	46.45	46.08	45.52	45.29	46.77	46.74	46.94
17	46.35	46.73	46.94	46.36	46.70	46.56	45.87	45.62	45.38	46.92	46.64	46.77
18	46.47	46.84	46.96	46.60	46.64	46.42	45.74	45.77	45.39	47.04	46.51	46.77
19	46.41	47.01	46.73	46.74	46.66	46.04	45.70	45.78	45.39	47.25	46.58	46.75
20	46.30	47.03	46.40	46.95	46.71	46.06	45.58	45.55	45.47	47.34	46.49	46.86
21	46.22	46.80	46.45	46.96	46.48	45.98	45.82	45.55	45.60	47.26	46.67	46.89
22	46.32	46.71	46.78	46.88	46.34	45.90	45.95	45.49	45.55	47.21	46.65	47.07
23	46.35	46.61	46.96	46.56	46.15	46.11	45.94	45.29	45.45	47.14	46.70	47.37
24	46.41	46.58	46.95	46.31	46.28	46.36	45.71	45.26	45.35	46.95	46.82	47.61
25	46.24	46.82	46.76	46.36	46.45	46.48	45.50	45.29	45.34	47.03	46.80	47.67
26	46.13	46.67	46.62	46.49	46.61	46.56	45.66	45.30	45.52	47.00	46.64	47.57
27	46.34	46.76	46.80	46.60	46.63	46.40	45.74	45.32	45.39	46.98	46.52	47.42
28	46.38	46.68	46.48	46.59	46.48	46.00	45.80	45.31	45.35	46.93	46.47	47.19
29	46.31	46.33	46.52	46.50	---	46.12	45.90	45.25	45.43	46.87	46.42	47.13
30	46.22	46.53	46.77	46.41	---	46.27	45.89	45.01	45.51	46.80	46.36	47.04
31	46.17	---	46.74	46.44	---	46.27	---	44.94	---	46.73	46.30	---

WTR YEAR 1983      HIGHEST    44.85 May 31, 1983      LOWEST    47.71 Sept. 24, 25, 1983



## GROUND-WATER LEVELS

## SARATOGA COUNTY

430013073370401. Local number, Sa 1072.

LOCATION.--Lat 43°00'13", long 73°37'04", Hydrologic Unit 02020003, Saratoga National Historical Park near Stillwater.

Owner: U.S. National Park Service.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 24 ft, cased to 21 ft, 2-in. well point (30-gauge screen 21 ft to 24 ft).

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Altitude of land-surface datum is 223.8 ft National Geodetic Vertical Datum of 1929. Measuring point:

Top of casing, 3.31 ft above land-surface datum.

REMARKS.--Water level affected by adjacent wells pumping.

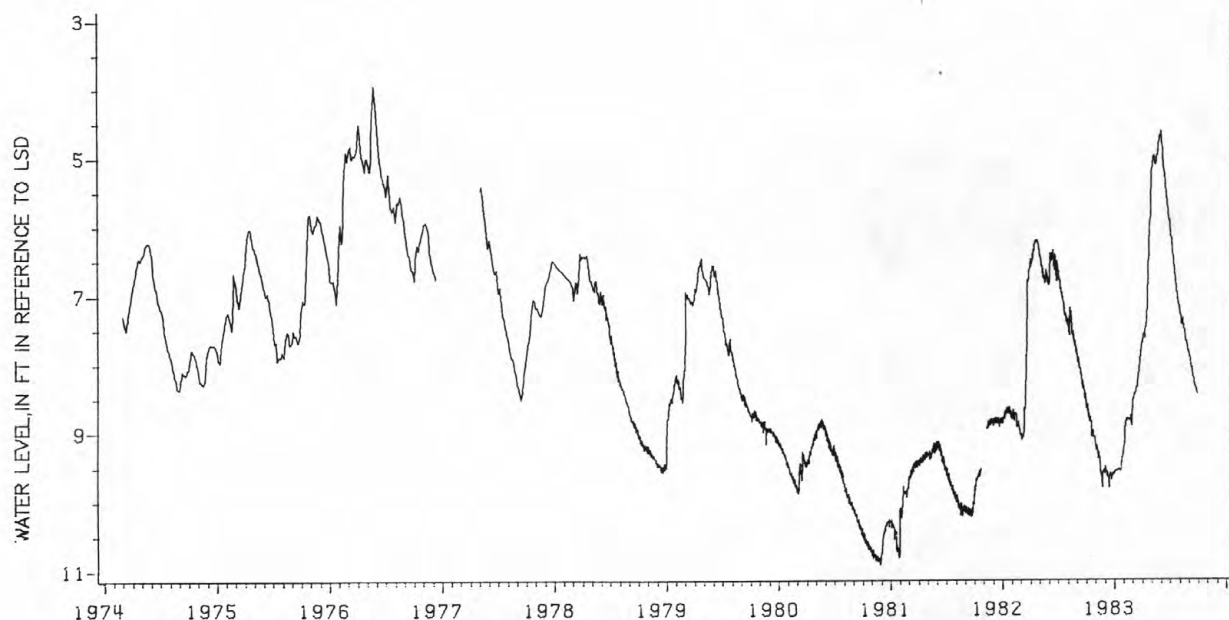
PERIOD OF RECORD.--July 1969 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.94 ft below land-surface datum, May 25, 1976; lowest, 11.91 ft below land-surface datum, Oct. 8, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.52	9.10	9.55	9.58	9.28	8.72	7.75	5.96	4.70	5.84	7.14	7.83
2	8.60	9.13	9.59	9.57	9.26	8.63	7.71	5.86	4.70	5.86	7.17	7.85
3	8.56	9.25	9.50	9.57	9.23	8.56	7.70	5.69	4.73	5.91	7.19	7.86
4	8.64	9.23	9.50	9.58	9.15	8.51	7.67	5.53	4.69	5.94	7.22	7.89
5	8.61	9.19	9.52	9.56	9.05	8.51	7.65	5.37	4.65	5.98	7.24	7.91
6	8.69	9.20	9.52	9.55	8.94	8.49	7.63	5.29	4.63	6.04	7.27	7.92
7	8.68	9.21	9.54	9.55	8.89	8.49	7.62	5.20	4.62	6.09	7.29	7.95
8	8.71	9.22	9.57	9.55	8.86	8.46	7.59	5.14	4.67	6.12	7.33	7.98
9	8.68	9.29	9.62	9.55	8.84	8.45	7.59	5.08	4.77	6.15	7.38	8.01
10	8.77	9.36	9.59	9.56	8.82	8.44	7.55	5.03	4.81	6.19	7.41	8.02
11	8.74	9.28	9.58	9.56	8.83	8.42	7.62	5.00	4.88	6.25	7.44	8.05
12	8.81	9.28	9.58	9.55	8.81	8.40	7.53	4.99	4.94	6.29	7.40	8.07
13	8.78	9.30	9.64	9.55	8.82	8.40	7.49	4.98	5.02	6.32	7.36	8.10
14	8.77	9.32	9.66	9.55	8.79	8.37	7.47	4.99	5.06	6.38	7.34	8.12
15	8.83	9.36	9.80	9.53	8.79	8.36	7.43	4.98	5.13	6.41	7.39	8.15
16	8.81	9.37	9.64	9.54	8.80	8.32	7.41	5.00	5.17	6.45	7.41	8.17
17	8.83	9.41	9.62	9.52	8.80	8.29	7.37	5.02	5.25	6.50	7.45	8.20
18	8.84	9.53	9.61	9.53	8.80	8.25	7.34	5.09	5.27	6.56	7.49	8.22
19	8.85	9.59	9.60	9.54	8.82	8.21	7.26	5.12	5.30	6.61	7.50	8.28
20	8.86	9.66	9.59	9.55	8.82	8.19	7.19	5.10	5.34	6.65	7.53	8.28
21	9.02	9.69	9.60	9.56	8.83	8.15	7.08	5.05	5.40	6.70	7.55	8.31
22	9.06	9.73	9.67	9.56	8.83	8.12	6.94	5.07	5.44	6.74	7.59	8.31
23	8.97	9.78	9.66	9.55	8.82	8.08	6.79	5.02	5.49	6.79	7.61	8.33
24	8.99	9.81	9.64	9.52	8.78	8.04	6.67	4.97	5.52	6.82	7.64	8.35
25	9.00	9.58	9.63	9.45	8.75	7.99	6.54	4.96	5.59	6.88	7.67	8.36
26	9.05	9.56	9.61	9.42	8.77	7.95	6.43	4.98	5.63	6.91	7.69	8.38
27	9.07	9.56	9.61	9.38	8.91	7.91	6.29	4.94	5.68	6.96	7.71	8.40
28	9.07	9.56	9.59	9.36	8.80	7.89	6.19	4.87	5.71	6.99	7.74	8.41
29	9.06	9.55	9.60	9.33	---	7.84	6.11	4.85	5.73	7.05	7.76	8.43
30	9.07	9.57	9.60	9.31	---	7.82	6.05	4.80	5.77	7.07	7.80	8.44
31	9.09	---	9.60	9.28	---	7.77	---	4.75	---	7.12	7.82	---

WTR YEAR 1983      HIGHEST    4.58 June 6, 1983      LOWEST    9.92 Dec. 15, 1982





## SCHENECTADY COUNTY

424910073591401. Local number, Sn 363.

LOCATION.--Lat 42°49'10", long 73°59'14", Hydrologic Unit 02020004, in Schenectady.

Owner: City of Schenectady.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 54 ft, filled in from original depth of 57 ft, cased to 57 ft, open end.

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Land-surface datum is 228.50 ft National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.47 ft above land-surface datum.

REMARKS.--Water level affected by stage of Mohawk River, and by pumping (average 16.3 Mgal/d in 1983) from adjacent municipal well field. Well was drilled June 1960 as a replacement for 424926073592201 (local number Sn 128), located 1,540 ft northwest, which has a period of record from April 1946 to March 1961.

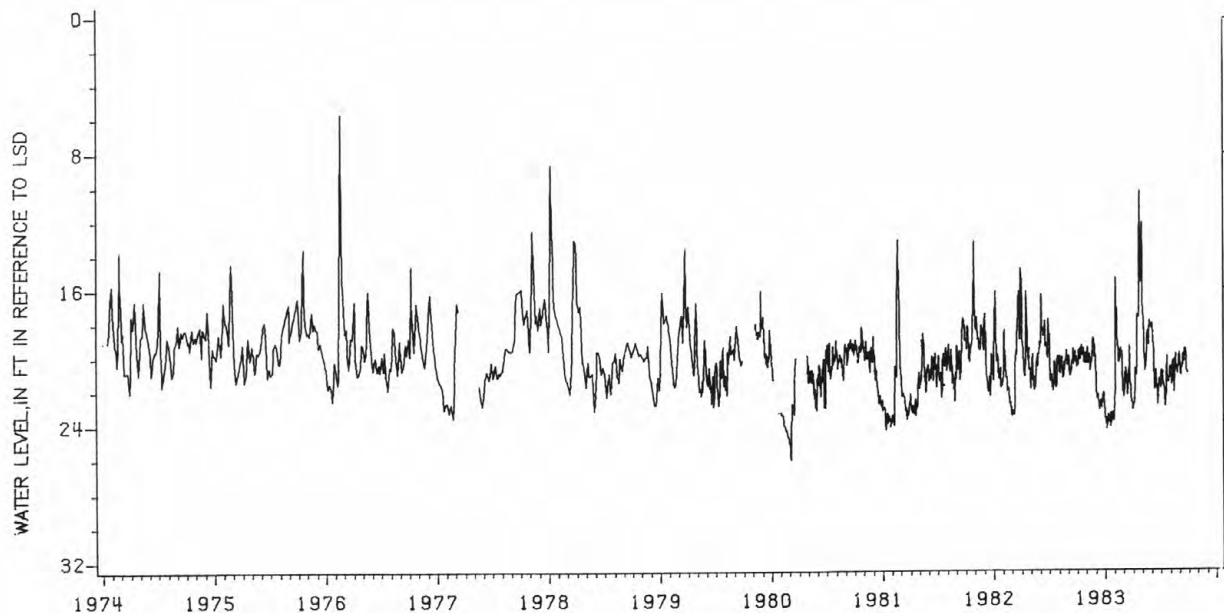
PERIOD OF RECORD.--June 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.62 ft below land-surface datum, Dec. 27, 1973; lowest, 31.27 ft below land-surface datum, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.10	19.89	19.34	22.58	23.67	21.16	22.59	14.32	18.06	21.51	21.35	20.33
2	20.22	19.79	19.99	22.86	23.40	21.51	22.67	12.35	18.24	21.52	21.19	19.93
3	20.15	19.97	20.50	23.22	23.68	21.92	22.73	12.17	18.09	21.62	20.62	20.35
4	20.57	20.35	20.74	23.54	21.55	22.07	22.74	12.77	18.28	21.84	20.98	20.13
5	20.35	19.89	21.10	23.60	16.27	22.12	23.08	13.92	18.12	21.79	20.67	19.78
6	20.47	19.52	21.65	23.86	15.36	22.16	22.83	15.49	18.19	21.00	20.58	20.59
7	20.43	19.43	22.10	23.74	15.86	22.35	23.08	16.88	18.40	20.76	20.97	20.86
8	20.30	19.62	22.27	23.92	16.84	21.81	22.89	17.87	18.58	20.97	21.35	21.04
9	19.62	20.06	22.30	23.66	17.13	21.57	22.65	18.37	18.53	21.33	21.56	21.02
10	19.72	20.34	22.42	23.95	17.21	21.00	22.45	18.46	19.13	20.86	21.68	21.08
11	19.57	20.13	22.21	24.25	18.64	21.23	21.78	19.30	19.56	21.17	21.41	20.73
12	20.02	20.12	22.33	23.45	18.89	20.70	20.66	19.70	19.77	21.48	21.20	20.62
13	20.13	19.89	22.49	23.81	19.08	20.90	20.84	20.43	20.51	21.66	20.49	20.51
14	20.10	19.94	22.75	23.64	19.31	21.01	20.78	20.76	21.60	21.74	20.22	20.57
15	19.71	20.13	22.97	23.53	19.53	21.58	21.03	20.67	21.89	21.66	20.60	20.46
16	19.56	20.44	22.83	23.57	19.84	21.64	21.14	20.48	21.93	21.86	21.29	20.28
17	19.40	20.78	23.08	23.53	20.26	22.22	18.89	20.56	21.80	22.55	21.73	19.92
18	19.47	20.41	22.79	23.81	20.16	21.97	17.57	20.45	21.31	22.45	22.07	19.84
19	19.90	20.40	22.53	23.71	20.32	21.82	17.60	19.58	20.84	22.45	21.73	19.87
20	19.89	20.03	22.81	24.11	19.71	21.40	17.65	19.10	21.18	22.77	20.63	20.25
21	19.76	19.81	22.69	23.32	19.63	21.12	17.64	18.78	21.56	22.94	20.26	20.32
22	19.51	19.71	22.60	23.87	20.06	20.61	17.69	18.51	21.79	22.04	20.18	20.04
23	19.47	19.52	22.96	23.62	19.83	19.64	17.66	18.47	21.93	21.67	19.90	19.56
24	19.46	19.34	22.78	23.86	19.80	19.38	17.05	18.71	22.36	20.99	20.25	19.59
25	19.65	18.97	22.69	23.89	19.54	20.45	13.77	18.61	22.82	19.95	20.46	19.75
26	20.24	18.94	22.59	23.44	19.62	20.94	10.31	19.35	22.48	20.69	20.72	19.94
27	20.30	19.41	22.27	23.28	19.72	21.52	12.19	18.23	21.78	21.10	20.61	20.39
28	20.29	19.92	22.49	23.36	19.84	21.78	14.22	18.29	22.06	21.33	20.75	20.78
29	20.41	20.07	22.18	23.28	---	22.39	15.65	17.94	21.50	21.33	21.01	20.91
30	20.00	19.61	22.37	23.40	---	22.49	15.44	18.21	21.32	21.43	20.77	21.00
31	19.94	---	22.27	23.67	---	22.67	---	18.12	---	21.52	20.43	---

WTR YEAR 1983      HIGHEST      9.86 Apr. 26, 1983      LOWEST      24.35 Jan. 11, 1983



## GROUND-WATER LEVELS

## ULSTER COUNTY

414425074213601. Local number, U 204.

LOCATION.--Lat 41°44'25", long 74°21'36", Hydrologic Unit 02020007, near Napanoch.

Owner: New York State Department of Correction.

AQUIFER.--Water-table aquifer in deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 8 in., depth 46 ft, cased to unknown depth, filled in from original depth of 67 ft.

METHOD OF MEASUREMENT.--Tape gage read by observer.

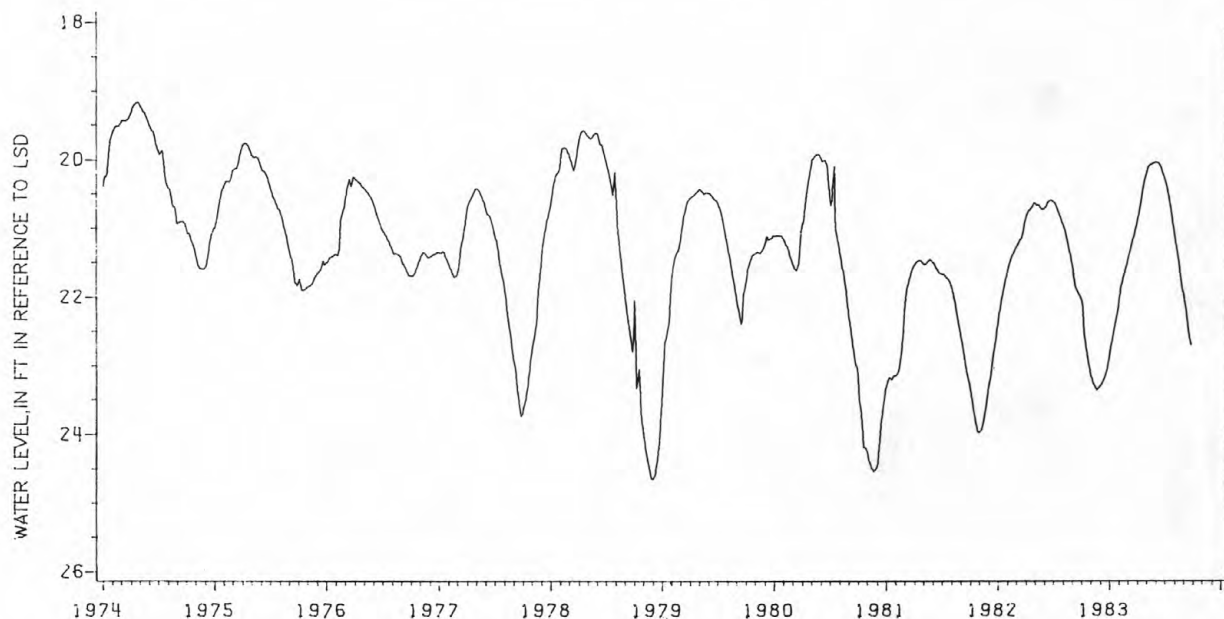
DATUM.--Altitude of land-surface datum is 300 ft, from topographic map. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1954 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.84 ft below land-surface datum, Mar. 24, 1955; lowest measured, 26.90 ft below land-surface datum, Dec. 29, 1964.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1982	22.04	JAN 04, 1983	22.78	MAY 03, 1983	20.22	JUL 26, 1983	20.75
12	22.56	25	22.28	10	20.08	AUG 09	21.18
19	22.73	FEB 01	22.10	JUN 07	20.03	16	21.36
NOV 02	23.11	08	21.88	14	20.04	23	21.59
09	23.26	15	21.71	21	20.08	30	21.83
23	23.36	MAR 29	21.03	28	20.15	SEP 06	22.03
DEC 09	23.25	APR 05	20.88	JUL 06	20.29	13	22.25
21	23.09	11	20.74	12	20.39	20	22.50
28	22.96	26	20.30	19	20.55	28	22.70



## GROUND-WATER LEVELS

233

## ULSTER COUNTY

414948074035101. Local number, U 405.

LOCATION.--Lat 41°49'48", long 74°03'51", Hydrologic Unit 02020007, Grist Mill Road, Tillson.

Owner: City School District of Kingston.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation well, diameter 2.5 in., depth 36 ft, cased to 34 ft, 2-in. well point (60-gauge screen 34 ft to 36 ft).

METHOD OF MEASUREMENT.--Taped by observer.

DATUM.--Altitude of land-surface datum is 240 ft, from topographic map. Measuring point: Top of casing, 0.47 ft above land-surface datum.

REMARKS.--Originally a dug well, diameter 36 in., depth 21 ft, stone-lined. Well deepened by power auger, October 1965.

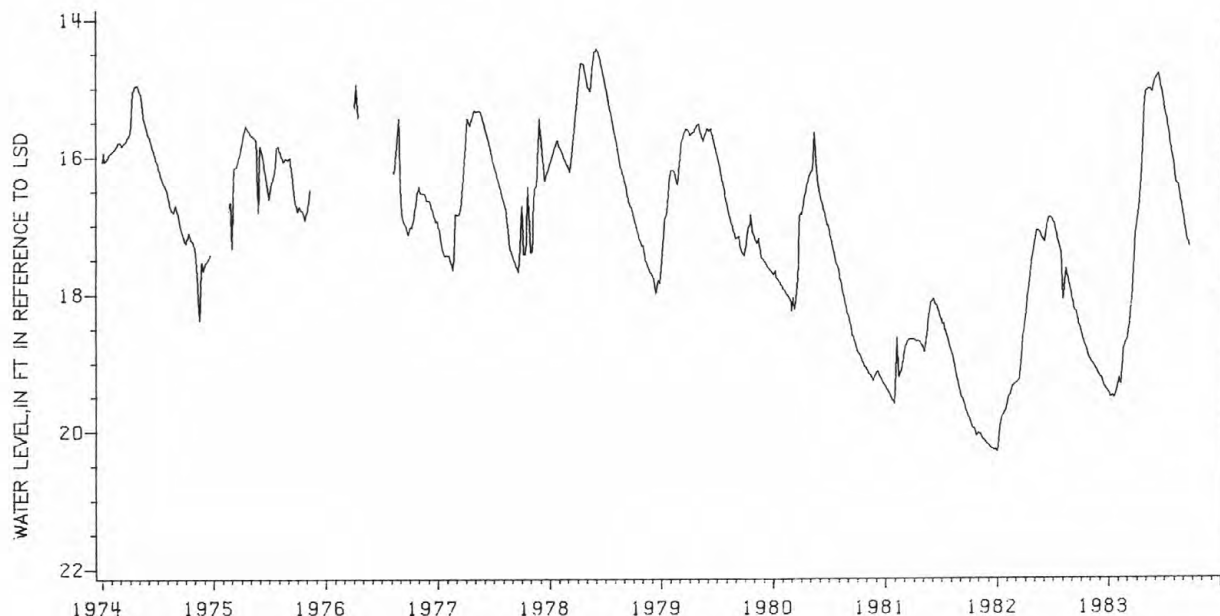
PERIOD OF RECORD.--October 1964 to July 1965, March 1966 to December 1974, April 1976 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.43 ft below land-surface datum, June 3, 1978; lowest measured, 20.71 ft below land-surface datum, Jan. 24, 1967.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1982	18.51	DEC 31, 1982	19.43	MAR 26, 1983	17.63	JUL 02, 1983	15.13
09	18.64	JAN 06, 1983	19.49	APR 02	17.13	06	15.26
16	18.72	08	19.51	09	16.83	09	15.33
23	18.83	15	19.48	16	16.57	16	15.51
25	18.88	17	19.50	23	16.06	23	15.73
30	18.93	22	19.51	30	15.40	30	15.92
NOV 06	18.99	29	19.37	MAY 07	15.06	AUG 06	16.08
13	19.03	FEB 05	19.22	14	15.02	13	16.38
20	19.09	12	19.33	21	15.02	20	16.43
27	19.14	19	18.80	28	15.06	27	16.63
DEC 04	19.20	26	18.73	JUN 04	14.91	SEP 03	16.81
11	19.23	MAR 05	18.64	11	14.83	10	16.99
18	19.33	12	18.40	18	14.80	17	17.17
24	19.38	19	18.07	25	14.97	24	17.31

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

## WASHINGTON COUNTY

431026073194101. Local number, W 264.

LOCATION.--Lat 43°10'26", long 73°19'41", Hydrologic Unit 02020003, in Salem.

Owner: Village of Salem.

AQUIFER.--Water-table aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug fire-protection well, approximate size 8 ft by 12 ft, depth 14 ft, filled in from original depth of 15 ft, stone-lined.

METHOD OF MEASUREMENT.--Taped by USGS personnel.

DATUM.--Land-surface datum is 485.5 ft National Geodetic Vertical Datum of 1929. Measuring point: Top edge of concrete cover at east side of square opening, 0.30 ft above land-surface datum.

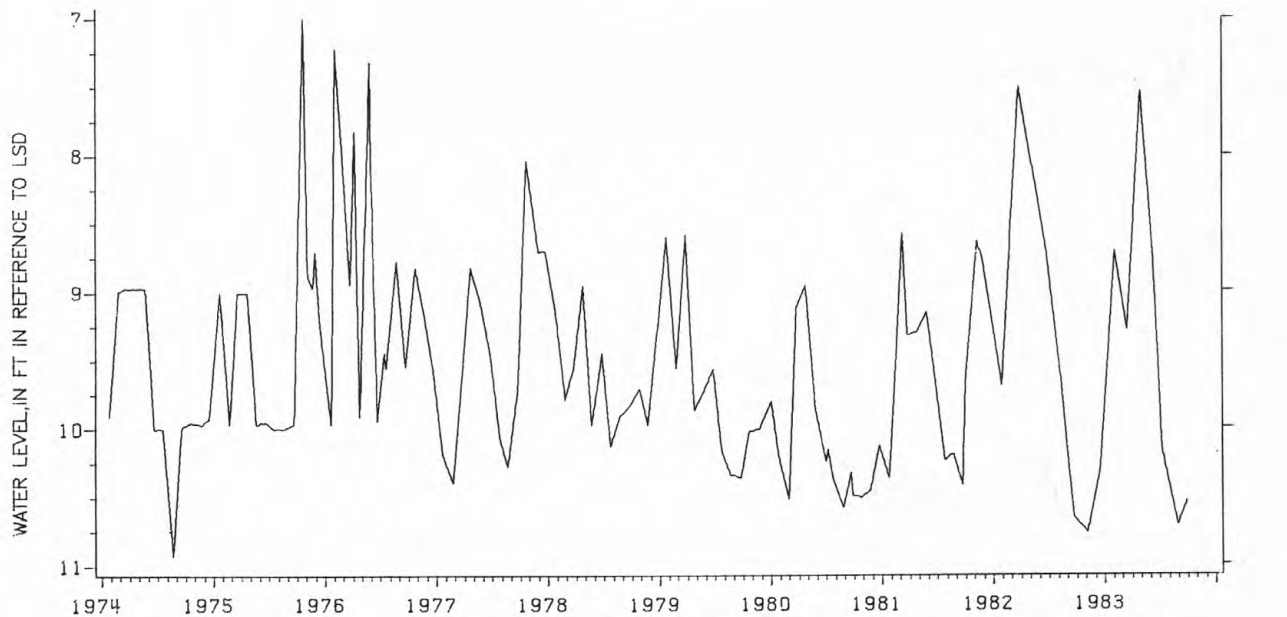
REMARKS.--Water level affected by stage of nearby stream.

PERIOD OF RECORD.--July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 6.62 ft below land-surface datum, Apr. 4, 1960; lowest measured 11.70 ft below land-surface datum, Oct. 12, 1964.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 03, 1982	10.76	MAR 15, 1983	9.27	JUN 08, 1983	8.79	AUG 29, 1983	10.70
DEC 14	10.31	APR 27	7.53	JUL 07	10.14	SEP 26	10.53
FEB 02, 1983	8.70						





## WASHINGTON COUNTY

431030073192101. Local number, W 533.

LOCATION.--Lat 43°10'30", long 73°19'21", Hydrologic Unit 02020003, in Salem.

Owner: Salem Central High School.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 15 ft, cased to 16 ft, open end.

Well backfilled 1.6 ft with coarse gravel.

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Altitude of land-surface datum is 490 ft, from topographic map. Measuring point: Top of casing, 3.10 ft above land-surface datum.

REMARKS.--Well was drilled March 1974 as a replacement for 431032073192401 (local number W 532), located 350 ft northwest, which has a period of record from October 1965 to June 1973 (unpublished).

PERIOD OF RECORD.--March 1974 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.92 ft below land-surface datum, May 3, 4-5, 6, 1983; lowest recorded, 7.75 ft below land-surface datum, Aug. 26, 27-29, 30, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.45	7.51	7.06	6.36	6.12	6.26	5.81	4.43	5.54	---	7.54	7.40
2	7.46	7.50	7.03	6.36	6.13	6.24	5.86	4.02	5.50	---	7.48	7.40
3	7.46	7.51	7.01	6.37	5.72	6.22	5.89	3.92	5.51	---	7.45	7.40
4	7.46	7.51	7.00	6.41	5.38	6.23	5.91	3.92	5.54	---	7.45	7.41
5	7.47	7.46	6.99	6.44	5.37	6.26	5.93	3.92	5.58	---	7.45	7.42
6	7.47	7.43	6.97	6.45	5.40	6.28	5.96	3.92	5.64	---	7.44	7.43
7	7.47	7.43	6.95	6.47	5.43	6.29	5.98	4.01	5.65	---	7.44	7.44
8	7.46	7.42	6.94	6.49	5.47	6.29	6.00	4.22	---	7.11	7.45	7.45
9	7.47	7.42	6.93	6.52	5.54	6.27	6.01	4.35	---	7.15	7.46	7.46
10	7.47	7.43	6.93	6.56	5.61	6.23	5.99	4.45	---	7.19	7.47	7.46
11	7.48	7.43	6.93	6.53	5.67	6.16	5.79	4.58	---	7.22	7.46	7.47
12	7.48	7.43	6.92	6.49	5.73	6.07	5.64	4.70	---	7.25	7.41	7.47
13	7.48	7.38	6.93	6.49	5.79	6.01	5.60	4.82	---	7.27	7.37	7.48
14	7.48	7.30	6.95	6.51	5.84	5.98	5.59	4.95	---	7.28	7.35	7.49
15	7.48	7.25	6.96	6.52	5.89	5.92	5.61	5.07	---	7.30	7.35	7.50
16	7.48	7.23	6.92	6.53	5.94	5.86	5.62	5.17	---	7.31	7.37	7.50
17	7.48	7.22	6.79	6.54	5.99	5.71	5.52	5.28	---	7.33	7.38	7.51
18	7.49	7.22	6.70	6.57	6.00	5.60	5.18	5.38	---	7.34	7.40	7.51
19	7.49	7.22	6.65	6.61	6.01	5.53	4.92	5.48	---	7.36	7.41	7.52
20	7.49	7.22	6.62	6.63	6.06	5.45	4.69	5.55	---	7.39	7.42	7.52
21	7.49	7.22	6.61	6.64	6.08	5.38	4.43	5.62	---	7.41	7.43	7.53
22	7.49	7.22	6.61	6.65	6.09	5.35	4.33	5.69	---	7.44	7.44	7.44
23	7.49	7.21	6.61	6.62	6.10	5.36	4.31	5.74	---	7.45	7.43	7.43
24	7.49	7.19	6.62	6.32	6.12	5.41	4.31	5.70	---	7.46	7.44	7.43
25	7.50	7.17	6.58	6.13	6.14	5.48	4.21	5.73	---	7.46	7.45	7.44
26	7.50	7.15	6.53	6.05	6.17	5.54	4.10	5.79	---	7.46	7.46	7.45
27	7.50	7.14	6.49	6.04	6.21	5.60	4.09	5.82	---	7.47	7.47	7.45
28	7.50	7.13	6.45	6.05	6.24	5.64	4.22	5.84	---	7.49	7.48	7.46
29	7.50	7.12	6.42	6.06	---	5.68	4.37	5.87	---	7.51	7.48	7.47
30	7.50	7.08	6.39	6.08	---	5.73	4.45	5.86	---	7.52	7.45	7.47
31	7.50	---	6.38	6.09	---	5.77	---	5.66	---	7.53	7.42	---

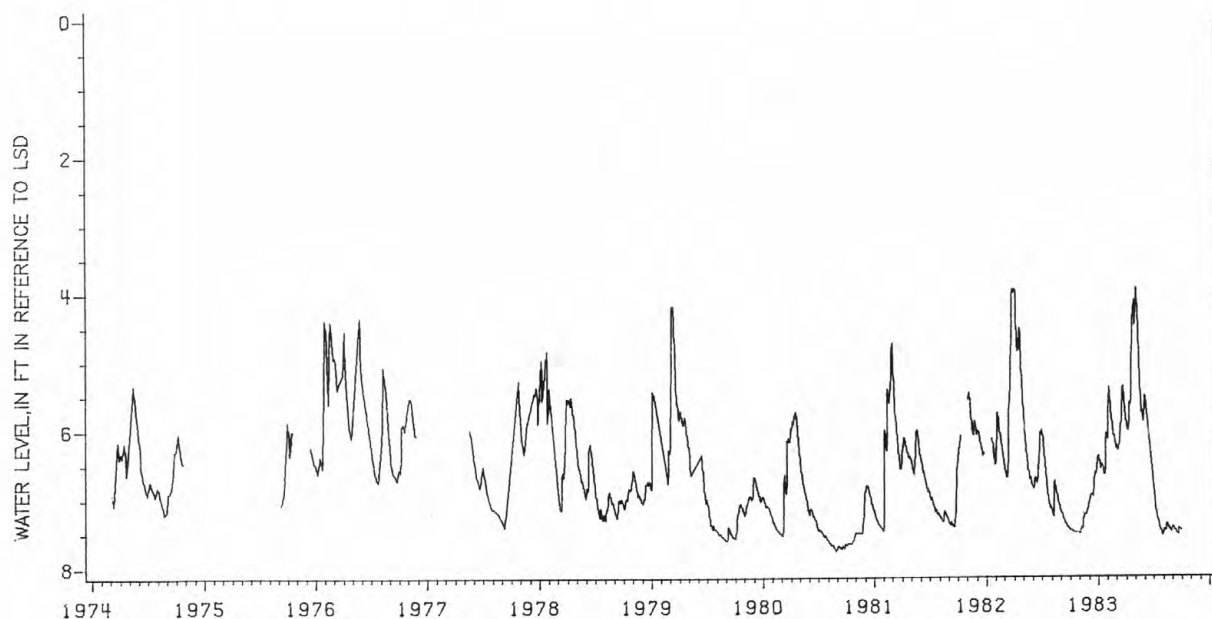
WTR YEAR 1983

HIGHEST

3.92 May 3, 4-5, 6, 1983

LOWEST

7.54 July 31, Aug. 1, 1983



## WESTCHESTER COUNTY

411421073481201. Local number, We 3.

LOCATION.--Lat 41°14'21", long 73°48'12", Hydrologic Unit 02030101, near Yorktown Heights.

Owner: New York City Board of Water Supply.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in., depth cleaned out to 17.6 ft November 9, 1981, original depth reported to be 18.2 ft, filled in to 17.1 ft as of November 1956, to 16.3 ft as of June 1971, to 15.5 ft as of October 1977, to 15.3 ft as of November 1978, cleaned out to 16.1 ft September 23, 1981, stone lined.

METHOD OF MEASUREMENT.--Water-stage recorder.

DATUM.--Altitude of land-surface datum is 252.5 ft National Geodetic Vertical Datum of 1929. Measuring point: Top edge of hole in wooden well cover, 1.13 ft above land-surface datum.

PERIOD OF RECORD.--April 1934 to September 1937, April 1938 to September 1945, March 1951 to current year.

Records prior to October 1976 are unpublished and available in files of the Geological Survey.

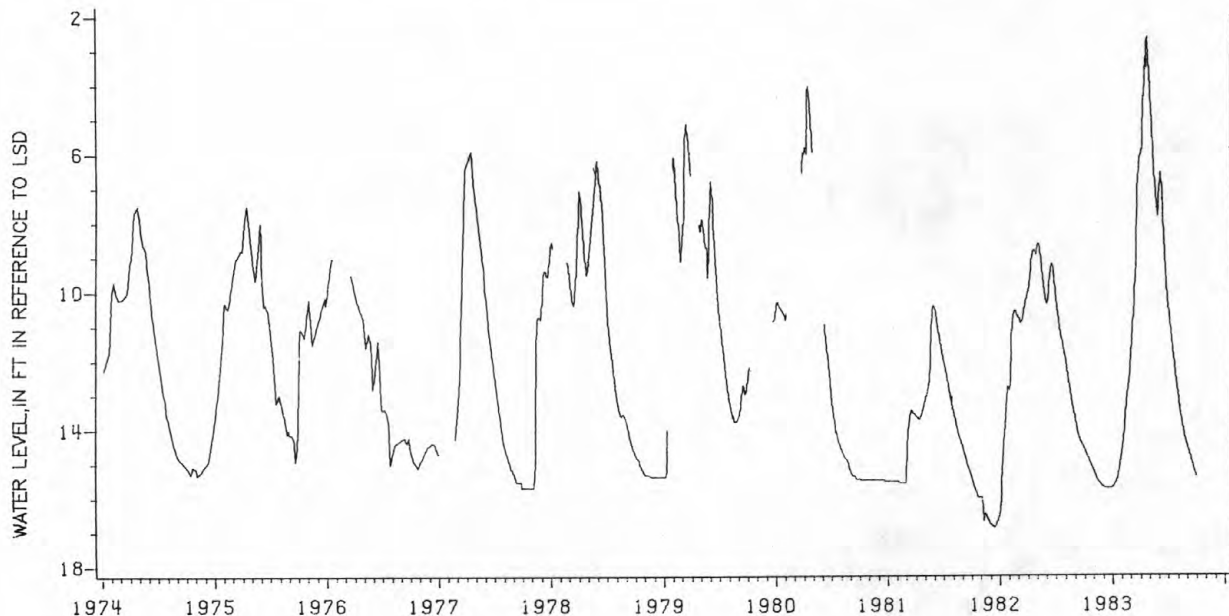
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.58 ft below land-surface datum, Apr. 26, 1983;

lowest measured, dry Nov. 30, 1935, Jan. 7, 1936, Feb. 1, 1936, Jan. 6 to Feb. 4, 1965, Nov. 12, 1970, Sept. 10 to Nov. 9, 1977, Oct. 30 to Nov. 7, 1978, Nov. 28, 1978 to Jan. 8, 1979, Sept. 6 to 30, 1980, Oct. 1, 1980 to Mar. 3, 1981, Oct. 25 to Nov. 8, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.56	15.21	15.68	15.71	14.74	12.08	6.13	3.46	7.38	10.32	12.85	14.47
2	14.58	15.22	15.68	15.70	14.69	11.92	6.12	3.59	7.20	10.42	12.92	14.50
3	14.59	15.25	15.69	15.69	14.62	11.80	6.06	3.71	7.08	10.53	12.99	14.53
4	14.61	15.27	15.69	15.71	14.56	11.69	6.06	3.86	6.96	10.62	13.05	14.56
5	14.64	15.29	15.70	15.68	14.51	11.57	6.02	4.06	6.84	10.71	13.12	14.59
6	14.66	15.32	15.70	15.65	14.45	11.43	5.97	4.28	6.69	10.75	13.19	14.62
7	14.68	15.34	15.72	15.63	14.36	11.28	5.93	4.47	6.60	10.88	13.28	14.65
8	14.70	15.36	15.72	15.63	14.27	11.16	5.91	4.64	6.61	10.95	13.35	14.68
9	14.72	15.38	15.72	15.64	14.17	11.04	5.91	4.87	6.73	11.02	13.41	14.71
10	14.75	15.41	15.73	15.63	14.06	10.91	5.72	5.10	6.84	11.10	13.47	14.74
11	14.77	15.43	15.71	15.59	13.93	10.75	4.80	5.32	7.00	11.18	13.53	14.77
12	14.78	15.45	15.72	15.58	13.78	10.56	4.49	5.54	7.17	11.26	13.58	14.80
13	14.80	15.46	15.73	15.57	13.64	10.36	4.40	5.74	7.36	11.34	13.64	14.83
14	14.82	15.49	15.73	15.56	13.49	10.13	4.37	5.94	7.58	11.42	13.70	14.86
15	14.83	15.50	15.73	15.52	13.34	9.91	4.38	6.13	7.80	11.50	13.75	14.90
16	14.86	15.52	15.71	15.48	13.24	9.74	4.36	6.33	8.02	11.59	13.80	14.93
17	14.89	15.53	15.73	15.46	13.13	9.60	3.66	6.51	8.24	11.68	13.85	14.96
18	14.92	15.55	15.74	15.43	13.04	9.47	3.56	6.68	8.44	11.77	13.90	14.99
19	14.94	15.56	15.73	15.41	12.98	9.30	3.52	6.80	8.63	11.86	13.95	15.02
20	14.97	15.57	15.72	15.38	12.93	8.85	3.22	6.89	8.81	11.94	14.00	15.05
21	14.98	15.58	15.73	15.33	12.87	8.32	3.27	7.00	8.99	12.01	14.05	15.08
22	15.00	15.59	15.74	15.28	12.81	7.76	3.39	7.10	9.14	12.09	14.09	15.12
23	15.02	15.60	15.74	15.22	12.72	7.29	3.52	7.18	9.29	12.17	14.14	15.16
24	15.05	15.61	15.74	15.16	12.66	7.00	3.41	7.30	9.42	12.24	14.18	15.19
25	15.07	15.63	15.73	15.11	12.59	6.82	2.77	7.41	9.57	12.33	14.23	15.24
26	15.08	15.64	15.71	15.07	12.51	6.75	2.64	7.51	9.72	12.40	14.27	15.27
27	15.11	15.66	15.73	15.03	12.40	6.64	2.78	7.62	9.84	12.48	14.31	15.30
28	15.13	15.66	15.71	14.97	12.26	6.52	2.95	7.72	9.97	12.56	14.35	15.33
29	15.15	15.65	15.71	14.91	---	6.43	3.14	7.81	10.10	12.64	14.38	15.36
30	15.17	15.67	15.73	14.84	---	6.31	3.30	7.87	10.22	12.71	14.41	15.39
31	15.19	---	15.72	14.79	---	6.20	---	7.64	---	12.78	14.44	---

WTR YEAR 1983      HIGHEST    2.58 Apr. 26, 1983      LOWEST    15.74 Dec. 18, 19, 21, 22-23, 24, 25, 1982



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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
<i>Length</i>		
inches (in)	$2.54 \times 10^1$ $2.54 \times 10^{-2}$	millimeters (mm) meters (m)
feet (ft)	$3.048 \times 10^{-1}$	meters (m)
miles (mi)	$1.609 \times 10^0$	kilometers (km)
<i>Area</i>		
acres	$4.047 \times 10^3$ $4.047 \times 10^{-1}$ $4.047 \times 10^{-3}$	square meters (m <sup>2</sup> ) square hectometers (hm <sup>2</sup> ) square kilometers (km <sup>2</sup> )
square miles (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometers (km <sup>2</sup> )
<i>Volume</i>		
gallons (gal)	$3.785 \times 10^0$ $3.785 \times 10^0$ $3.785 \times 10^{-3}$	liters (L) cubic decimeters (dm <sup>3</sup> ) cubic meters (m <sup>3</sup> )
million gallons	$3.785 \times 10^3$ $3.785 \times 10^{-3}$	cubic meters (m <sup>3</sup> ) cubic hectometers (hm <sup>3</sup> )
cubic feet (ft <sup>3</sup> )	$2.832 \times 10^1$ $2.832 \times 10^{-2}$	cubic decimeters (dm <sup>3</sup> ) cubic meters (m <sup>3</sup> )
cfs-days	$2.447 \times 10^3$ $2.447 \times 10^{-3}$	cubic meters (m <sup>3</sup> ) cubic hectometers (hm <sup>3</sup> )
acre-feet (acre-ft)	$1.233 \times 10^3$ $1.233 \times 10^{-3}$ $1.233 \times 10^{-6}$	cubic meters (m <sup>3</sup> ) cubic hectometers (hm <sup>3</sup> ) cubic kilometers (km <sup>3</sup> )
<i>Flow</i>		
cubic feet per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$ $2.832 \times 10^1$ $2.832 \times 10^{-2}$	liters per second (L/s) cubic decimeters per second (dm <sup>3</sup> /s) cubic meters per second (m <sup>3</sup> /s)
gallons per minute (gal/min)	$6.309 \times 10^{-2}$ $6.309 \times 10^{-2}$ $6.309 \times 10^{-5}$	liters per second (L/s) cubic decimeters per second (dm <sup>3</sup> /s) cubic meters per second (m <sup>3</sup> /s)
million gallons per day	$4.381 \times 10^1$ $4.381 \times 10^{-2}$	cubic decimeters per second (dm <sup>3</sup> /s) cubic meters per second (m <sup>3</sup> /s)
<i>Mass</i>		
tons (short)	$9.072 \times 10^{-1}$	megagrams (Mg) or metric tons



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