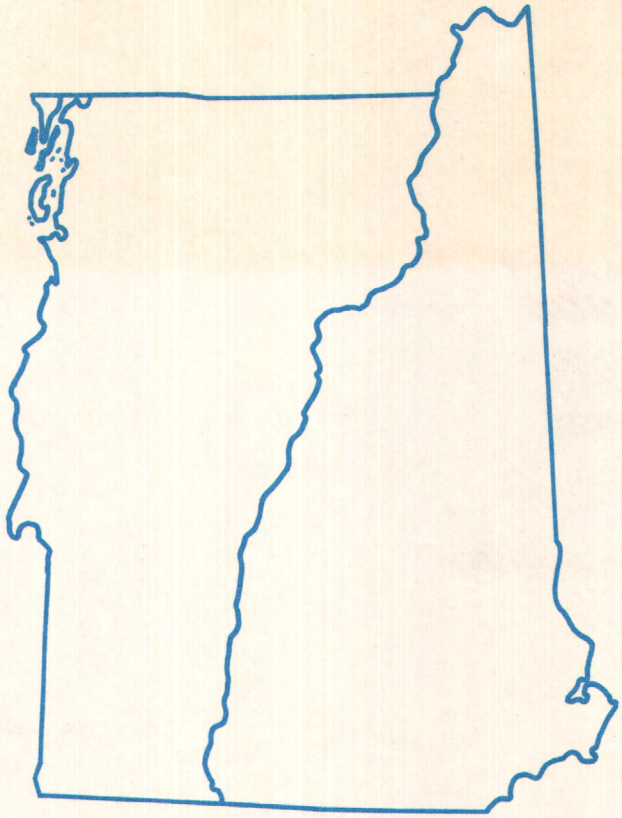
Water Resources Data New Hampshire and Vermont Water Year 1983



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NH-VT-83-1
Prepared in cooperation with the States of New Hampshire and Vermont and with other agencies

CALENDAR FOR WATER YEAR 1983

1982

OCTOBER

S	M	T	W	T	F	S
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1983

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SEPTEMBER

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Water Resources Data New Hampshire and Vermont Water Year 1983

by F.E. Blackey, J.E. Cotton, and K.W. Toppin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NH-VT-83-1
Prepared in cooperation with the States of New Hampshire and Vermont and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

WILLIAM P. CLARK, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
150 Causeway Street
Boston, MA 02114

1984

PREFACE

This volume of the annual hydrologic data report of New Hampshire and Vermont is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and 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.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. 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: M. F. Coakley, J. C. Denner, J. E. King, K. E. McKenna, S. C. Shore, and B. T. White.

Nanci Jones typed the station analyses.

Maggie Jordan/Penrose and Janet A. LeBlanc coordinated the word processing and publishing phases of the report.

This report was prepared in cooperation with the States of New Hampshire and Vermont and with other agencies under the general supervision of R. E. Hammond, Chief, New Hampshire-Vermont Office.

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This report was prepared in cooperation with the States of New Hampshire and Vermont and with other agencies.

16. Abstract (Limit: 200 words)

Water-resources data for the 1983 water year for New Hampshire and Vermont consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and ground-water levels. This report contains discharge records for 78 gaging stations, stage records for 4 lakes, monthend contents for 25 lakes and reservoirs, water-quality data for 3 gaging stations, and water levels for 30 observation wells. Also included are data for 4 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. Locations of gaging stations, partial-record stations, and observation wells are shown in figure 1. A few pertinent stations (not included above) in bordering States and Province of Quebec are also included in this report. These data represent that portion of the National Water Data System operated by the U.S. Geological Survey and by the cooperating State and Federal agencies in New Hampshire and Vermont.

17. Document Analysis. a. Descriptors

*New Hampshire, *Vermont, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages
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SURFACE-WATER AND WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

(Letters after station name designate type of data: (d), discharge; (l), lake; (c) chemical; (b), biological; (t), water temperature)

WATER RESOURCES DATA FOR NEW HAMPSHIRE AND VERMONT, 1983

INTRODUCTION

Water-resources data for the 1983 water year for New Hampshire and Vermont consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and ground-water levels. This report contains discharge records for 78 gaging stations, stage records for 4 lakes, monthend contents for 25 lakes and reservoirs, water-quality data for 3 gaging stations, and water levels for 30 observation wells. Also included are data for 4 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. Locations of gaging stations, partial-record stations, and observation wells are shown in figure 1. A few pertinent stations (not included above) in bordering States and Province of Quebec are also included in this report. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Hampshire and Vermont.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface water supply of the United States." Through 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 1939 to 1974 in a series of water-supply papers entitled, "Ground-water levels in the United States." Water-supply papers may be consulted in libraries of the principal cities of the United States or may be purchased from Eastern Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report 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 report is identified as "U.S. Geological Survey water-data report NH-VT-83-1." Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

COOPERATION

Organizations that assisted in collecting data through cooperative agreements with the Geological Survey in 1983 are:

New Hampshire: State Water Resources Board, D. F. Downing, chairman.

Vermont: State Department of Water Resources, J. P. Ponsetto, commissioner.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 17 gaging stations.

Organizations supplying data are acknowledged in the station descriptions.

On waters adjacent to the international boundary, certain gaging stations are maintained by the United States (or Canada) under agreement with Canada (or the United States), and the records are obtained and compiled in a manner equally acceptable to both countries. These stations are designated as "international gaging stations."

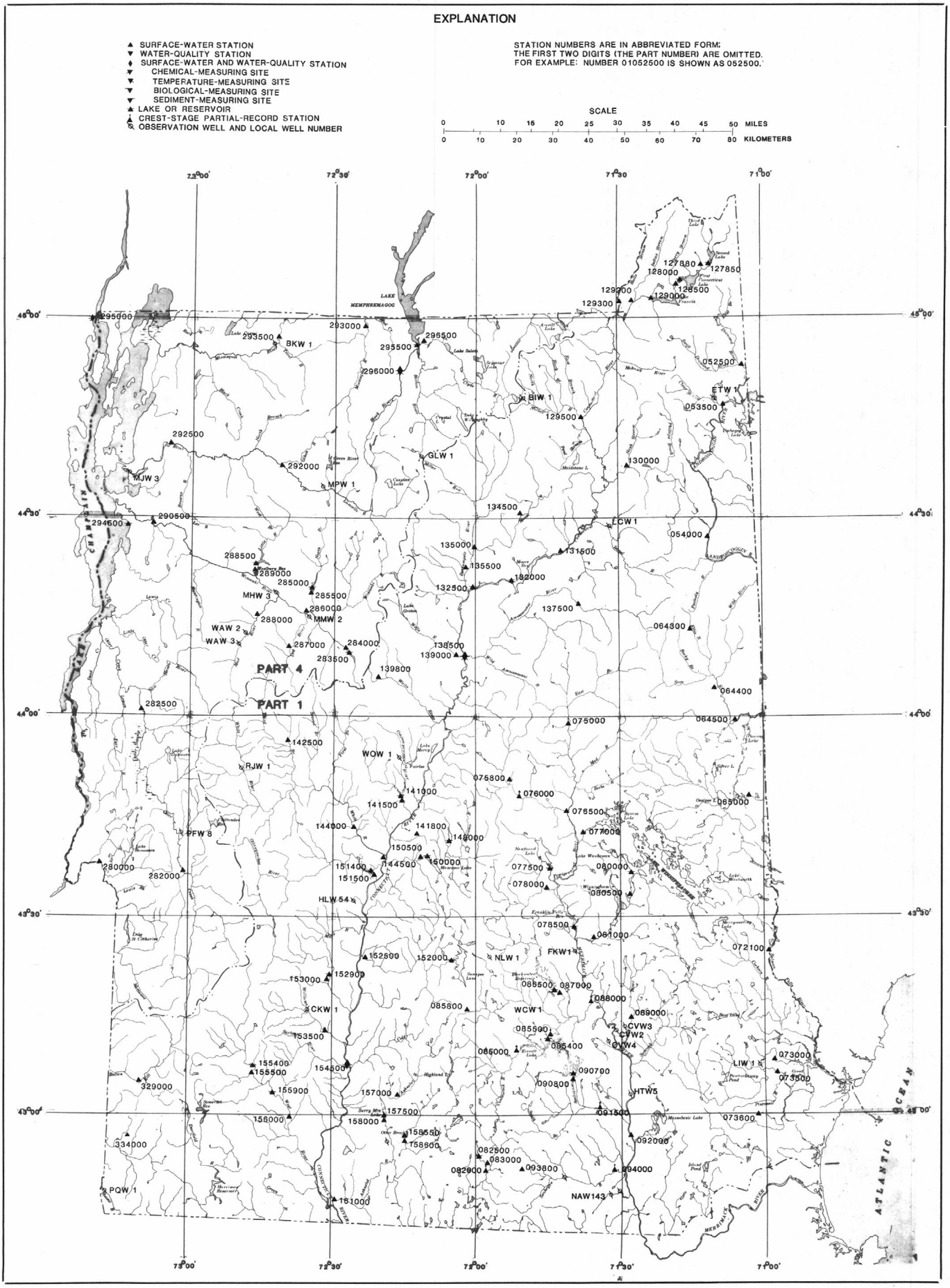

FIGURE 1. LOCATION OF DATA-COLLECTION SITES

SUMMARY OF HYDROLOGIC CONDITIONS

Hydrologic conditions were near normal in New Hampshire and Vermont during the 1983 water year, although, typically, there were short-term variations when conditions ranged from below to above normal. A relatively wet spring resulted in above-average spring high water in some rivers; for example, in March the Lamprey River near Newmarket, New Hampshire, experienced the second highest average flow in 50 years of record, but no severe flooding occurred. Reservoir storage also varied normally during the year and was in the normal range at the year's end.

Ground-water levels also ranged from above to below normal during the year. From October through February levels generally were normal to below normal. From March through June, levels were commonly above normal. Levels were in the normal range during July and August and declined to below normal by the end of the water year.

Surface-Water Conditions

At the beginning of the 1983 water year, streamflow was about normal except in central New Hampshire, where it was deficient.

A dry fall resulted in reduced runoff, and streamflows were near-normal to deficient throughout the two States into December. Precipitation in November and December increased flows to the normal range across the area. In January, flows remained near normal, but spring runoff, beginning in February and continuing in March, increased most streamflows to the excessive range. Streamflows were near normal only in the northern part of the area.

Following the spring high-water period, streamflow began its normal, seasonal decline, a pattern which continued through the summer into September, and which reflected the generally less than average precipitation which prevailed during the summer.

At the end of the water year, streamflows were near normal throughout the two States except in the Merrimack River basin and coastal river basins in New Hampshire, where runoff was deficient.

Figure 2 shows the comparison of runoff during the 1983 water year with runoff for the base period 1951-80 at long-term index stations in New Hampshire and Vermont.

Usable storage in major reservoirs in the two-State area generally declined from October through January. Runoff in February and March increased usable storage, which was above average at the end of March.

Beginning in April, reduction of usable storage in the major reservoirs began and generally continued through September. At the end of the water year, usable storage was near normal.

Ground-Water Conditions

At the beginning of the 1983 water year, ground-water levels in the two-State area were declining seasonally and were above normal in the southeastern part of the area, below normal in the north-central part, and near normal elsewhere. Seasonal decline continued through October, and water levels were below normal at the end of the month except in the southern one-third of New Hampshire, where they were near normal.

Minor recharge occurred during November that returned levels to near normal except in north-central Vermont and the lower Connecticut River valley where they remained below normal.

Seasonal decline resumed in December and, except in southern New Hampshire and southwestern Vermont where they were in the normal range, water levels were below normal throughout the area. Three new monthly lows of record were observed in Vermont.

Water levels generally rose during January and were normal at month's end, except they were below normal in the central Connecticut River basin. In February, levels generally continued to rise and, following the start of spring recharge, were above normal in most of New Hampshire and eastern Vermont.

Spring recharge resulted in two new highs-of-record and one monthly high in observation wells in New Hampshire at the end of March. In mid-April, declines began and, at end-of-month, levels had fallen to near normal in the northern half of the two states.

Seasonal declines were slowed by above-average precipitation in May, and water levels were above normal at the end of the month, except in the Northeast Kingdom of Vermont and north of the White Mountains in New Hampshire, where levels were near normal.

Levels declined in June but remained in about the same ranges as they were in May. In July, they declined to near-normal except in the Lake Champlain lowlands, where they remained above normal. August levels were below normal in scattered locations in New Hampshire but remained about the same as in July throughout Vermont.

Throughout September, seasonal decline continued and, at the end of the water year, water levels were below normal, except levels were normal in southeastern New Hampshire and near normal in western Vermont.

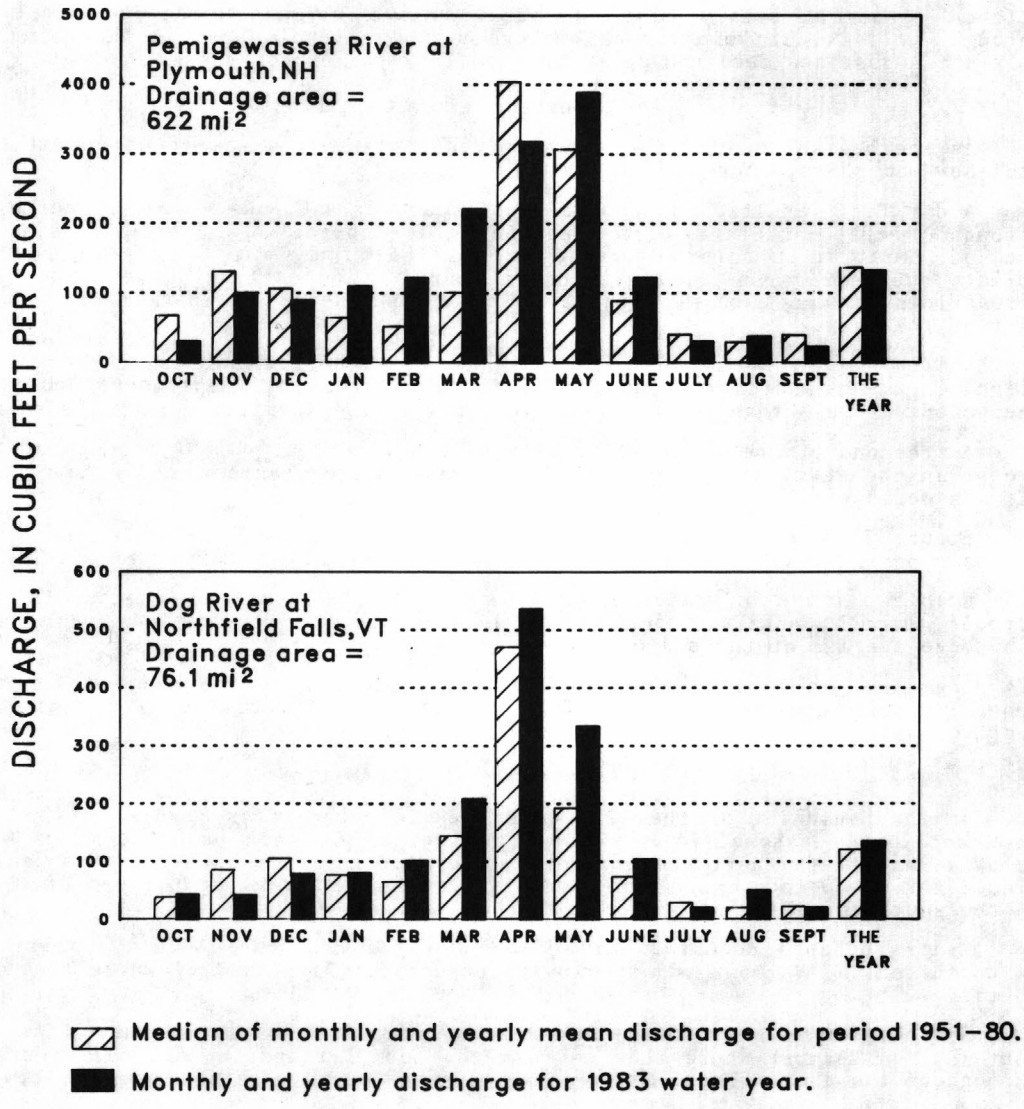

Figure 2.--Comparison of discharge at two long-term index gaging stations during 1983 water year with median discharge for period 1951-80.

DEFINITION OF TERMS

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

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

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 or 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, spherical, rod-like, 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 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. These bacteria are defined as organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ±1.0°C on M-Endo medium (nutrient medium for bacterial growth). Concentrations are expressed as number of colonies per 100 mL (milliliters) of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of water. These bacteria 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). Concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found in the intestines of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. These bacteria are defined as all organisms which produce red or pink colonies within 48 hours at 35°C ±1.0°C on KF Streptococcus agar (nutrient medium for bacterial growth). Concentrations are expressed as number of colonies per 100 mL of sample.

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

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

Biomass is the amount of living matter present at any given time, expressed as the 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. Ash-mass values of zooplankton and phytoplankton are expressed in g/m^3 (grams per cubic meter), and ash-mass values of periphyton and benthic organisms are expressed in g/m^2 (grams per square meter).

Biomass pigment ratio is the ratio of organic mass in mg/m^2 (milligrams per square meter) to the mass of chlorophyll a, mg/m^2.

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry-mass values are expressed in the same units as ash mass.

Bottom material: See Bed material.

Recoverable from bottom material is the amount of a given constituent 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 digestion treatment and thus 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 analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as analytical methodology used, is required to judge when 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 a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, about 646,000 gallons, or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in water, and gives an approximation of the amount of organic and reducing material present.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the most commonly reported green pigments in plants.

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

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.

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^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.2832 cubic meters per second.

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:

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

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 a 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 stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or 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 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 ($CaCO_3$).

Hydrologic unit is a geographic area representing part of 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.

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

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

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 kilogram (UG/KG, ug/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of sediment.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in a sample as the mass (micrograms) of constituent per unit volume (liter) of sample. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in a sample. Milligrams per liter represents the mass of constituent per unit volume of sample. Concentration of suspended sediment also is expressed in milligrams per liter 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 derieved from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism count/area refers to the number of organisms enumerated in a sample and adjusted to the number per unit area of habitat, usually square meters (m^2). Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organisms count/volume refers to the number of organisms enumerated in a sample and adjusted to the number per unit volume, usually in cells per milliliter (mL) or liter (L). Numbers of planktonic organisms are expressed in these terms.

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 either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with 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	Sedimentation or sieve.
Gravel.....	2.0 - 64.0	Sieve.

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

Periphyton refers to the assemblage of organisms attached to and growing upon submerged surfaces. While primarily consisting of algae, the assemblage may include bacteria, fungi, protozoa, rotifer, and other small organisms.

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

pH is a symbol denoting the negative logarithm (base 10) of the hydrogen ion concentration of a solution; pH values range from 0 to 14--the lower the value, the more acid is the solution; i.e., the more hydrogen ions it contains.

Phytoplankton are the plant part of the plankton communities which exist in standing waters. They are the primary source of food in their aquatic environments, and are commonly known as algae.

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

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.

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 (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 by volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

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

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that is discharged during a given time.

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

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

Stage-discharge relation is the relation between gage height (stage) and the 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 flow of a canal, the word "streamflow" uniquely describes 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 emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization 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.

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 by analyzing portions of 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. The term is used only when analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made 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 concerning classification and naming of organisms. 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, taxonomy of a particular mayfly, Hexagenia limbata is the following:

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

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

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

Total (as used in tables of chemical analysis):

Total, recoverable is the amount of a given constituent 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 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. The term is used only when analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. Knowledge of the expected form of the constituent in the sample, as well as analytical methodology used, is required to judge when results should be reported as "total." (Note that the word "total" does double duty here, indicating the sample consists of a water-suspended sediment mixture and the analytical method determines all the constituent in the sample.)

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to previously published District annual basic-data reports.

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

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of 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 indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 01094400, which appears just to the left of the station name includes the 2-digit part number "01" plus the 6-digit downstream-order number "094400."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote 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 wells or other sites within a 1-second grid. See figure 3 below.

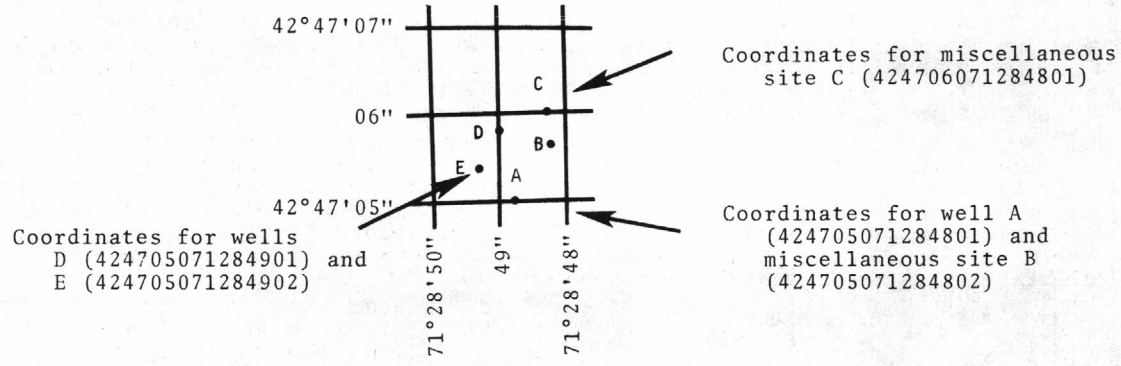

Figure 3.--System for numbering wells and miscellaneous sites (latitude and longitude)

A local well-numbering system is also used in this report. The local well number consists of a 2-letter code for the town in which the well is located followed by a "W" signifying that it is a well, and a sequential number. The local number is used to identify the location of observation wells on figure 1.

SPECIAL NETWORKS AND PROGRAMS

National stream-quality accounting network (NASQAN) is a 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 in 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 twice a year (at high and low flow) 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 consists of records of stage and measurements of discharge of streams, and stage, surface area, and contents of lakes and reservoirs. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to supplement base data in determining the daily flow. Records of stage are obtained from a water-stage recorder that gives either a tape punched at selected time intervals or a continuous graph of the fluctuations. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey. These methods are described in standard textbooks and in the U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving discharge for any stage are prepared from stage-discharge relation curves. If extensions to 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 hydrologists 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 ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by hydrologists and observers, and comparable records of discharge for other stations in the same or nearby basins.

For some lake and reservoir stations, 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.

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. 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.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams 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 contents is given. 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 and stage. 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 obtained later. Revisions of such records are usually published along with current records in one of the annual or compilation reports. For ease in finding 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 reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing 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 effected 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 "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and to supplemental water-quality data collected during the year 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." Attention is called to 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-discharge 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. Methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

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.

Under "EXTREMES" are given first, extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, maximum discharge is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder, 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, it is given separately. Similarly, minimum is the instantaneous minimum unless otherwise qualified. For some stations, supplemental 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 height are published in tabular format. 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 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. Minimums for these stations are published in a separate paragraph following the table of peaks.

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

For gaging stations on lakes and reservoirs, the data presented comprise a description of the station and a monthly summary table of contents. For some reservoirs, a table showing daily stage is given. A skeleton table of capacity at given stages is published for some reservoirs for which records are published on a daily basis.

Data collected at partial-record stations and miscellaneous sites are contained in two tables following the information for continuous record sites. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at miscellaneous sites.

Accuracy of Field Data and Computed Results

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

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent of true value; "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^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/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 adjustments for changes in reservoir contents. Even at those stations where adjustments are made, large errors in computed runoff may occur if the 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 gaging stations, such as 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.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Surface-water samples for analyses usually are collected at or near gaging stations. Quality-of-water records are given immediately following the discharge records for these stations.

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

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based on 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 Temperature

Water temperatures are measured at most water-quality stations. In addition, water temperatures are taken at time of most discharge measurements for surface-water stations. Large streams have a small diurnal temperature change while small, shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

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

Sediment

Suspended-sediment concentrations are determined periodically from samples collected by using depth-integrating samplers. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow when predicting long-term sediment discharge characteristics of the stream.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Collection of the Data

Only ground-water-level data from a basic network of 30 observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

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

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 are standardized. At each observation well, however, the equipment and techniques used are those that will insure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements are reported to the nearest hundredth of a foot with reference to land-surface datum (lsd), which is a datum plane that is approximately at land surface at each well. If known, the altitude of land-surface datum above National Geodetic Vertical Datum of 1929 is given in the well description. 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 for every fifth day and the end of each month (eom); water levels in wells not equipped with recording gages are reported for the end of each month.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Forty-two 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. Material is grouped under major subject headings called books and 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. Reports listed below are sold by U.S. Geological Survey, Branch of Distribution, 604 South Pickett Street, Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office). Prices, effective January 1985, are subject to change. When ordering, please give the series (U.S. Geological Survey Techniques of Water-Resources Investigations), title, book number, and chapter number.

1-D1 Water temperature-influential factors, field measurement, and data presentation, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: Book 1, Chapter D1. 1975. 65 pages. $2.50.
1-D2 Guidelines for collection and field analysis of ground-water samples for selected unstable constituents, by W. W. Wood: Book 1, Chapter D2. 1976. 24 pages. $2.50.
2-D1 Application of surface geophysics to ground-water investigations, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: Book 2, Chapter D1. 1974. 116 pages. $5.00.
2-E1 Application of borehole geophysics to water-resources investigations, by W. S. Keys and L. M. MacCary: Book 2, Chapter E1. 1971. 126 pages. $5.50.
3-A1 General field and office procedures for indirect discharge measurements, by M. A. Benson and Tate Dalrymple Book 3, Chapter A1. 1967. 30 pages. $2.00.
3-A2 Measurement of peak discharge by the slope-area method, by Tate Dalrymple and M. A. Benson: Book 3, Chapter A2. 1967. 12 pages. $1.75.
3-A3 Measurement of peak discharge at culverts by indirect methods, by G. L. Bodhaine: Book 3, Chapter A3. 1968. 60 pages. $5.00.
3-A4 Measurement of peak discharge at width contractions by indirect methods, by H. F. Matthai: Book 3, Chapter A4. 1967. 44 pages. $2.25.
3-A5 Measurement of peak discharge at dams by indirect methods, by Harry Hulsing: Book 3, Chapter A5. 1967. 29 pages. $2.25.
3-A6 General procedure for gaging streams, by R. W. Carter and Jacob Davidian: Book 3, Chapter A6. 1968. 13 pages. $1.75.
3-A7 Stage measurements at gaging stations, by T. J. Buchanan and W. P. Somers: Book 3, Chapter A7. 1968. 28 pages. $4.50.
3-A8 Discharge measurements at gaging stations, by T. J. Buchanan and W. P. Somers: Book 3, Chapter A8. 1969. 65 pages. $3.25.
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.: Book 3, Chapter A9. 1982. 44 pages. $5.00.
3-A11 Measurement of discharge by moving-boat method, by G. F. Smoot and C. E. Novak: Book 3, Chapter A11. 1969. 22 pages. $2.00.
3-A13 Computation of continuous records of streamflow, by E. J. Kennedy: Book 3, Chapter A13. 1983. $4.50.
3-A14 The use of flumes in measuring discharge, by F. A. Kilpatrick and V. R. Schneider: Book 3, Chapter A14. 1983. 46 pages. $4.50.
3-A15 Computation of water-surface profiles in open channels, by Jacob Davidian: Book 3, Chapter A15. $2.50.
3-B1 Aquifer-test design, observation, and data analysis, by R. W. Stallman: Book 3, Chapter B1. 1971. 26 pages. $3.50.
3-B2 Introduction to ground-water hydraulics, a programed text for self-instruction, by G. D. Bennett: Book 3, Chapter B2. 1976. 172 pages. $3.75.
3-B3 Type curves for selected problems of flow to wells in confined aquifers, by J. E. Reed: Book 3, Chapter B3. 1980. 106 pages. $6.00.
3-C1 Fluvial sediment concepts, by H. P. Guy: Book 3, Chapter C1. 1970. 55 pages. $3.75.
3-C2 Field methods for measurement of fluvial sediment, by H. P. Guy and V. W. Norman: Book 3, Chapter C2. 1970. 59 pages. $5.50.
3-C3 Computation of fluvial-sediment discharge, by George Porterfield: Book 3, Chapter C3. 1972. 66 pages. $3.25.
4-A1 Some statistical tools in hydrology, by H. C. Riggs: Book 4, Chapter A1. 1968. 39 pages. $2.50.
4-A2 Frequency curves, by H. C. Riggs: Book 4, Chapter A2. 1968. 15 pages. $2.00.
4-B1 Low-flow investigations, by H. C. Riggs: Book 4, Chapter B1. 1972. 18 pages. $3.50.
4-B2 Storage analyses for water supply, by H. C. Riggs and C. H. Hardison: Book 4, Chapter B2. 1973. 20 pages. $3.25.
4-B3 Regional analyses of streamflow characteristics, by H. C. Riggs: Book 4, Chapter B3. 1973. 15 pages. $3.50.
4-D1 Computation of rate and volume of stream depletion by wells, by C. T. Jenkins: Book 4, Chapter D1. 1970. 17 pages. $1.75.
5-A1 Methods for determination of inorganic substances in water and fluvial sediments, by M. W. Skougstad, M. J. Fishman, L. C. Friedman, D. E. Erdmann, and S. S. Duncan, editors: Book 5, Chapter A1. 1979. 626 pages. $11.00.
5-A2 Determination of minor elements in water by emission spectroscopy, by P. R. Barnett and E. C. Mallory, Jr.: Book 5, Chapter A2. 1971. 31 pages. $2.75.
5-A3 Methods for analysis of organic substances in water, by D. F. Goerlitz and Eugene Brown: Book 5, Chapter A3. 1972. 40 pages. $2.50.
5-A4 Methods for collection and analysis of aquatic biological and microbiological samples, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: Book 5, Chapter A4. 1977. 332 pages. $10.00.
5-A5 Methods for determination of radioactive substances in water and fluvial sediments, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: Book 5, Chapter A5. 1977. 95 pages. $6.50.
5-A6 Quality assurance practices for the chemical and biological analyses of water and fluvial sediments, by L. C. Friedman and D. E. Erdmann: Book 5, Chapter A6. 1982. 181 pages. $6.50.
5-C1 Laboratory theory and methods for sediment analysis, by H. P. Guy: Book 5, Chapter C1. 1969. 58 pages. $3.25.
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: Book 7, Chapter C1. 1976. 116 pages. $4.75.
7-C2 Computer model of two-dimensional solute transport and dispersion in ground water by L. F. Konikow and J. D. Bredehoeft: Book 7, Chapter C2. 1978. 90 pages. $3.25.
7-C3 A model for simulation of flow in singular and interconnected channels by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: Book 7, Chapter C3. 1981. 110 pages. $7.50.
8-A1 Methods of measuring water levels in deep wells, by M. S. Garber and F. C. Koopman: Book 8, Chapter A1. 1968. 23 pages. $2.00.
8-A2 Installation and service manual for U.S. Geological Survey manometers, by J. D. Craig: Book 8, Chapter A2. 1983. 57 pages. $6.00.
8-B2 Calibration and maintenance of vertical-axis type current meters, by G. F. Smoot and C. E. Novak: Book 8, Chapter B2. 1968. 15 pages. $1.75.

01052500 DIAMOND RIVER NEAR WENTWORTH LOCATION, NH

LOCATION.--Lat 44°52'40", long 71°03'25", Coos County, Hydrologic Unit 01040001, on left bank 1.0 mi upstream from mouth and 1.6 mi north of Wentworth Location.

DRAINAGE AREA.--152 mi^2.

PERIOD OF RECORD.--Discharge: July 1941 to current year.
Water-quality records: Water year 1954.

GAGE.--Water-stage recorder. Altitude of gage is 1,275 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--42 years, 349 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,630 ft^3/s June 16, 1943, gage height, 10.66 ft, from rating curve extended above 4,300 ft^3/s; maximum gage height, 12.23 ft Feb. 21, 1981 (ice jam); minimum discharge, 6.8 ft^3/s Aug. 27, 28, 1949, Sept. 1, 1952, gage height, 0.81 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 29	2100	3810	7.55	May 3	0800	*4890	8.34

Minimum discharge, 26 ft^3/s July 19, 20, gage height, 1.20 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	68	58	356	135	115	100	166	2650	852	57	50	273
2	70	166	374	120	110	110	167	2940	585	56	58	138
3	76	274	530	110	105	370	176	3950	451	67	73	93
4	64	166	554	100	575	680	166	3520	401	62	61	72
5	56	957	471	97	540	300	176	2250	430	56	44	62
6	51	1170	399	94	320	200	228	1240	357	165	48	54
7	47	460	436	92	280	179	268	888	550	115	153	49
8	126	303	290	89	250	161	514	743	431	78	146	51
9	218	236	170	87	225	142	741	1190	316	63	743	48
10	126	193	105	85	205	132	851	1070	264	56	259	44
11	93	163	100	320	190	128	550	852	229	49	129	52
12	78	163	95	1180	180	130	462	722	199	47	464	59
13	70	610	90	541	165	139	417	597	180	45	403	48
14	73	592	87	240	155	130	606	528	443	42	178	40
15	78	328	85	215	145	125	755	509	225	38	112	36
16	79	250	215	195	140	124	545	744	268	36	85	34
17	90	205	815	180	135	142	565	554	426	33	70	37
18	99	182	390	165	125	157	502	421	443	30	68	58
19	91	162	240	155	120	169	389	357	262	28	75	54
20	83	151	200	140	115	500	470	374	184	43	63	44
21	80	161	175	130	115	765	542	415	145	62	52	38
22	83	236	155	120	110	590	446	345	122	136	46	339
23	73	467	135	115	110	465	574	459	104	187	49	256
24	67	567	125	150	105	350	940	610	90	91	48	116
25	63	594	115	320	105	320	2460	547	86	111	42	82
26	61	363	445	235	100	290	2950	409	87	77	38	67
27	59	263	592	160	100	240	2250	371	80	57	79	61
28	57	189	360	150	98	200	2430	686	87	44	92	57
29	56	251	341	135	---	199	3110	567	72	38	61	52
30	54	438	289	130	---	189	2980	688	63	42	158	48
31	53	---	160	125	---	209	---	976	---	57	397	---
TOTAL	2442	10318	8894	6110	5038	7935	27396	32172	8432	2068	4344	2462
MEAN	78.8	344	287	197	180	256	913	1038	281	66.7	140	82.1
MAX	218	1170	815	1180	575	765	3110	3950	852	187	743	339
MIN	47	58	85	85	98	100	166	345	63	28	38	34
CFSM	.52	2.26	1.89	1.30	1.18	1.68	6.01	6.83	1.85	.44	.92	.54
IN.	.60	2.53	2.18	1.50	1.23	1.94	6.70	7.87	2.06	.51	1.06	.60

CAL YR 1982 TOTAL 128350 MEAN 352 MAX 4320 MIN 27 CFSM 2.32 IN 31.41
WTR YR 1983 TOTAL 117011 MEAN 322 MAX 3950 MIN 28 CFSM 2.12 IN 28.78

01053500 ANDROSCOGGIN RIVER AT ERROL, NH

LOCATION.--Lat 44°46'57", long 71°07'46", Coos County, Hydrologic Unit 01040001, on right bank 0.4 mi downstream from Errol Dam, 0.4 mi northeast of Errol, and 0.6 mi upstream from Clear Stream.

DRAINAGE AREA.--1,046 mi^2.

PERIOD OF RECORD.--Discharge: January 1905 to current year. Prior to 1922, published as "at Errol Dam." Water-quality records: Water years 1955, 1958-59.

REVISED RECORDS.--WRD ME-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,227.30 ft National Geodetic Vertical Datum of 1929. Prior to Dec. 8, 1943, nonrecording gage at Errol Dam at datum 5.0 ft higher.

REMARKS.--Records good. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes (Reservoirs in Androscoggin River basin), combined usable capacity, 28,100,000,000 ft^3, with final regulation at Errol Dam. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--78 years, 1,904 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 16,100 ft^3/s May 22, 1969; minimum daily, leakage only at various times when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6,810 ft^3/s May 7; minimum daily, 837 ft^3/s Apr. 10.

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

1	1680	1580	1350	1520	1650	1680	1680	6200	4710	1730	1720	1670
2	1650	1580	1270	1580	1660	1680	1680	5990	4650	1650	1690	1750
3	1660	1580	1200	1630	1520	1680	1670	5010	4300	1640	1700	1760
4	1700	1590	1150	1640	1130	1680	1580	5590	4280	1640	1730	1760
5	1710	1310	1150	1660	1360	1680	1570	6000	3920	1630	1710	1760
6	1600	944	1290	1710	1700	1680	1550	6500	2640	1430	1700	1780
7	1750	1220	1310	1690	1630	1700	1320	6810	1940	1480	1710	1780
8	1670	1340	1330	1670	1630	1680	1100	6650	1930	1660	1690	1760
9	1480	1400	1450	1720	1630	1650	888	6510	1950	1660	1420	1780
10	1470	1530	1520	1790	1680	1660	837	6360	1950	1650	1400	1790
11	1610	1550	1520	1170	1840	1660	1240	4910	1950	1670	1690	1790
12	1720	1490	1590	854	1680	1660	1140	2890	1990	1670	1240	1800
13	1670	1370	1710	1350	1620	1660	1040	1480	1990	1670	930	1790
14	1650	1230	1740	1670	1680	1650	952	1480	1990	1670	1510	1790
15	1630	1370	1610	1640	1680	1650	1250	1480	1990	1710	1610	1810
16	1620	1370	1490	1570	1690	1650	1490	1490	1990	1710	1650	1830
17	1610	1400	1350	1680	1700	1650	1480	1550	1990	1710	1690	1830
18	1620	1460	1490	1790	1690	1650	1460	1670	1990	1740	1710	1830
19	1600	1450	1560	1790	1650	1610	1480	1820	1990	1730	1710	1830
20	1620	1440	1530	1790	1650	1500	1470	1910	2000	1730	1680	1820
21	1610	1450	1510	1790	1650	1510	1420	1910	1990	1720	1680	1810
22	1610	1490	1530	1790	1650	1270	1460	1920	2080	1690	1730	1470
23	1620	1240	1520	1790	1650	1170	1450	1930	1830	1670	1730	1830
24	1640	1090	1500	1650	1660	1520	1450	1940	1990	1670	1770	1790
25	1690	1090	1520	1600	1660	1490	1490	1960	2050	1670	1770	1780
26	1830	1090	1460	1610	1660	1510	2170	1970	2040	1680	1770	1810
27	1700	1190	1440	1620	1660	1590	3090	2060	2020	1700	1780	1800
28	1670	1430	1390	1630	1680	1660	3510	2940	1990	1700	1790	1820
29	1650	1470	1440	1630	---	1660	4000	2940	1960	1700	1780	1820
30	1560	1390	1470	1640	---	1650	5690	3010	1940	1700	1760	1800
31	1560	---	1480	1650	---	1680	---	3870	---	1710	1660	---
TOTAL	50860	41134	44870	50314	45740	49820	52607	108750	72030	51790	51110	53440
MEAN	1641	1371	1447	1623	1634	1607	1754	3508	2401	1671	1649	1781
MAX	1830	1590	1740	1790	1840	1700	5690	6810	4710	1740	1790	1830
MIN	1470	944	1150	854	1130	1170	837	1480	1830	1430	930	1470

CAL YR 1982 TOTAL 765794 MEAN 2098 MAX 6250 MIN 944
WTR YR 1983 TOTAL 672465 MEAN 1842 MAX 6810 MIN 837

01054000 ANDROSCOGGIN RIVER NEAR GORHAM, NH

LOCATION.--Lat 44°26'10", long 71°11'27", Coos County, Hydrologic Unit 01040001, on right bank at Pulsifer Rips, 2.2 mi downstream from Dead River, and 4.0 mi upstream from Gorham.

DRAINAGE AREA.--1,361 mi^2.

PERIOD OF RECORD.--October 1913 to current year. October 1922 to February 1929, monthly discharge only, published in WSP 1301. Prior to October 1928, published as "at Berlin."

REVISED RECORDS.--WDR ME-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 832.88 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1922, nonrecording gage showing head and tailwater elevations at site 3 mi upstream at different datum.

REMARKS.--Records good. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes, combined usable capacity, 28,100,000,000 ft^3, with final regulation at Errol Dam 35 mi upstream. Diurnal fluctuation caused by powerplant 0.8 mi upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--70 years, 2,465 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 20,000 ft^3/s June 18, 1917, Apr. 30, 1923; minimum daily, 795 ft^3/s Mar. 15, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,000 ft^3/s May 3, gage height, 7.74 ft; minimum daily, 1,040 ft^3/s Dec. 12, Aug. 14.

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	1870	1770	1930	1850	1960	1950	2190	9180	5740	2040	1910	1860
2	1850	1890	1870	1890	1940	2140	2230	9280	5940	1820	2010	1810
3	1800	2030	1850	1910	2250	2330	2280	10200	5350	1920	1940	1860
4	1850	1930	1840	1830	2530	2390	2190	8910	5000	1750	1900	1860
5	1870	2760	1770	1820	1790	2280	2130	8760	4950	1900	1880	1840
6	1850	3180	1740	1970	2090	2200	2300	8050	4230	2120	1870	1840
7	1760	2040	1830	1980	2120	2160	2530	8230	2840	1820	1890	1850
8	2080	1960	1770	1930	2030	2130	2540	8030	2680	1860	1880	1840
9	2040	1860	1750	1900	2020	2060	2760	8250	2510	1870	2380	1820
10	1770	1850	1770	1900	1920	2060	2650	8420	2440	1840	1860	1850
11	1780	1910	1810	3080	2040	2120	2440	7490	2380	1820	1800	1850
12	1890	1870	1640	2700	2150	2250	2600	5810	2340	1830	2740	1870
13	1920	2120	1880	1970	1940	2280	2530	3230	2300	1850	2060	1860
14	1880	2340	1970	2090	1960	2240	2770	2620	2280	1770	1640	1860
15	1860	1950	2070	2140	2010	2230	2960	2510	2310	1830	1910	1850
16	1870	1910	1980	1990	1990	2270	3160	2870	2360	1850	1830	1860
17	1860	1800	2340	1970	1990	2380	3370	2730	3070	1830	1860	1900
18	1830	1820	1990	2000	2010	2390	3370	2540	3130	1850	1860	1900
19	1830	1810	2020	2080	1950	2590	2950	2460	2990	1850	1850	1900
20	1790	1780	1990	2110	1920	3450	2930	2620	2860	1870	1830	1910
21	1830	1780	1900	2130	1930	3520	3100	2710	2340	1890	1770	1860
22	1810	1870	1870	2120	1940	3370	2790	2630	2260	1920	1800	2460
23	1800	2130	1820	2040	1930	2600	2890	2690	2390	1880	1830	2060
24	1800	2030	1810	2110	1940	2380	3390	2950	1940	1850	1830	2030
25	1820	1950	1830	2140	1940	2330	5890	2840	2180	1890	1870	1960
26	1880	1770	2020	2110	1930	2130	6210	2710	2220	1840	1850	1930
27	2000	1700	2030	2010	1910	2140	5920	2660	2210	1820	1890	1920
28	1860	1660	1940	1990	1940	2200	6260	3470	2170	1820	1890	1920
29	1860	1960	1860	1970	---	2240	6970	3910	2140	1820	1870	1920
30	1800	1950	1930	1960	---	2160	8110	3820	2110	1830	1870	1920
31	1720	---	1830	1970	---	2120	---	4770	---	1810	1920	---
TOTAL	57430	59380	58650	63660	56070	73090	104410	157350	89660	57660	59290	57170
MEAN	1853	1979	1892	2054	2003	2358	3480	5076	2989	1860	1913	1906
MAX	2080	3180	2340	3080	2530	3520	8110	10200	5940	2120	2740	2460
MIN	1720	1660	1640	1820	1790	1950	2130	2460	1940	1750	1640	1810

CAL YR 1982 TOTAL 977580 MEAN 2678 MAX 11500 MIN 1640
WTR YR 1983 TOTAL 893820 MEAN 2449 MAX 10200 MIN 1640

01064300 ELLIS RIVER NEAR JACKSON, NH

LOCATION.--Lat 44°13'12", long 71°15'00", Carroll County, Hydrologic Unit 01060002, in White Mountain National Forest, on right bank 0.4 mi upstream from small left-bank tributary, 1.3 mi upstream from bridge on State Highway 16, and 6 mi northwest of Jackson.

DRAINAGE AREA.--10.9 mi^2.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,500 ft, from topographic map. Prior to Oct. 14, 1969, at site 0.3 mi downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--19 years (water years 1965-83), 33.8 ft^3/s, 42.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft^3/s Nov. 3, 1966, gage height, 10.34 ft, from recorder, affected by drawdown, 18.9 ft, from floodmarks, site and datum then in use, from rating curve extended above 390 ft^3/s on basis of slope-area measurement at gage height 10.34 ft; minimum not determined, occurred during ice effect in March 1980. Minimum daily, 2.2 ft^3/s Mar. 2-4, 1980.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 5	0915	687	3.84	Mar. 19	1800	854	4.20
Dec. 16	1515	444	3.25	Apr. 29	1545	578	3.58
Jan. 11	0800	700	*a4.45	May 3	0430	726	3.93
Feb. 3	1230	*962	4.41	May 9	1130	496	3.38

a Ice jam.

Minimum discharge, 7.3 ft^3/s Sept. 19-21.

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	14	12	28	19	11	9.6	13	365	76	14	20	19
2	14	21	29	19	11	70	13	324	53	49	20	15
3	13	18	29	18	355	51	14	461	45	33	16	14
4	12	22	35	15	80	19	14	261	67	20	15	13
5	12	302	30	12	50	15	19	90	60	23	15	13
6	11	64	34	13	35	14	26	69	49	36	14	12
7	10	43	32	13	30	13	27	58	45	23	15	12
8	109	35	26	12	25	13	70	86	38	19	14	11
9	43	30	18	12	20	12	64	215	33	16	42	11
10	32	26	17	12	18	22	45	69	30	15	21	11
11	26	23	16	250	17	21	39	51	28	15	19	11
12	22	23	15	50	16	17	34	47	27	15	56	10
13	18	99	15	25	15	14	32	50	26	16	36	9.7
14	18	45	15	19	14	14	38	65	26	14	25	9.4
15	18	34	38	18	14	14	33	67	31	14	21	9.2
16	19	29	144	16	13	16	30	75	43	13	18	8.6
17	18	27	57	14	12	15	62	41	31	12	16	8.2
18	16	25	46	12	12	14	45	34	29	12	15	9.4
19	15	23	35	11	11	288	31	34	28	12	15	7.5
20	16	23	30	11	11	245	32	63	24	12	15	7.3
21	18	23	26	12	11	66	28	63	21	13	14	7.3
22	16	30	24	13	11	71	27	49	19	35	13	79
23	15	41	22	15	10	40	36	89	17	23	14	21
24	14	39	20	59	10	29	87	64	16	20	13	15
25	14	31	22	22	9.8	25	263	51	17	19	13	13
26	14	27	39	17	9.6	21	135	46	16	16	13	12
27	13	23	24	14	9.6	18	92	52	18	15	15	12
28	13	21	24	13	9.6	17	190	65	18	14	13	11
29	12	21	27	13	---	16	356	48	15	14	13	10
30	12	36	20	12	---	15	278	86	14	15	13	10
31	12	---	24	11	---	14	---	112	---	14	30	---
TOTAL	609	1216	961	772	850.6	1228.6	2173	3250	960	581	592	411.6
MEAN	19.6	40.5	31.0	24.9	30.4	39.6	72.4	105	32.0	18.7	19.1	13.7
MAX	109	302	144	250	355	288	356	461	76	49	56	79
MIN	10	12	15	11	9.6	9.6	13	34	14	12	13	7.3
CFSM	1.80	3.72	2.84	2.28	2.79	3.63	6.64	9.63	2.94	1.72	1.75	1.26
IN.	2.08	4.15	3.28	2.63	2.90	4.19	7.42	11.09	3.28	1.98	2.02	1.40

CAL YR 1982 TOTAL 11081.8 MEAN 30.4 MAX 480 MIN 5.4 CFSM 2.79 IN 37.82
WTR YR 1983 TOTAL 13604.8 MEAN 37.3 MAX 461 MIN 7.3 CFSM 3.42 IN 46.43

01064400 LUCY BROOK NEAR NORTH CONWAY, NH

LOCATION.--Lat 44°04'10", long 71°10'30", Carroll County, Hydrologic Unit 01060002, on left bank 1.6 mi upstream from mouth and 2.5 mi northwest of North Conway.

DRAINAGE AREA.--4.68 mi^2.

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

GAGE.--Water-stage recorder. Altitude of gage is 710 ft, from topographic map.

REMARKS.--Records good except those for winter period which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--19 years, 11.0 ft^3/s, 31.92 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft^3/s Apr. 27, 1979, recorded gage height, 8.49 ft, affected by drawdown, river stage unknown, from rating curve extended above 140 ft^3/s on basis of slope-area measurement at gage height, 8.14 ft recorded, 9.20 ft^3/s from floodmarks; minimum discharge, 0.32 ft^3/s Sept. 2, 3, 29, 30, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 190 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 3	1145	294	6.88	Mar. 19	1930	*399	7.15

Minimum not determined, occurred during a period of backwater from debris; minimum daily, 0.70 ft^3/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	3.0	2.0	5.0	4.3	5.5	4.5	9.8	51	27	2.0	1.1	1.8
2	2.8	2.4	5.0	4.3	5.5	11	9.4	73	18	2.0	1.5	1.4
3	2.6	2.5	4.7	4.2	109	14	10	68	14	2.0	1.2	1.4
4	2.4	2.4	4.5	3.7	54	8.5	12	44	27	2.0	1.0	1.2
5	2.4	31	4.5	3.3	29	7.2	16	32	29	2.3	1.0	1.2
6	2.4	15	4.5	3.4	20	6.9	19	24	19	3.6	1.2	1.2
7	2.3	7.8	4.2	3.5	15	6.8	17	20	15	2.7	1.5	1.2
8	4.1	6.0	4.1	3.5	12	6.8	24	17	12	2.0	1.1	1.2
9	3.6	5.0	4.0	3.4	10	6.8	31	24	9.9	1.7	1.4	1.0
10	3.8	4.3	3.8	3.3	9.5	11	25	22	8.9	1.7	1.2	.91
11	3.6	3.9	3.5	70	9.0	16	32	17	8.0	1.7	1.4	.91
12	3.3	3.9	3.5	20	8.4	63	35	15	7.3	1.7	16	.91
13	3.3	43	3.5	13	7.8	40	29	13	6.9	1.7	7.7	.91
14	3.2	20	3.5	10	7.4	25	28	12	6.9	1.5	3.6	.91
15	3.0	12	3.5	9.0	7.0	21	26	10	6.2	1.5	2.8	.91
16	2.9	8.6	21	8.0	6.5	21	24	10	6.6	1.4	2.4	.90
17	2.9	7.2	19	7.5	6.2	19	44	9.4	5.9	1.2	2.0	.85
18	2.9	6.2	9.2	7.0	5.8	17	34	8.0	5.3	1.2	1.8	.80
19	2.9	5.7	6.6	6.6	5.6	159	25	7.3	5.0	1.2	1.7	.70
20	2.6	5.5	6.2	6.4	5.4	118	23	8.4	4.1	1.2	1.5	.74
21	2.6	5.5	5.6	7.0	5.2	59	22	9.9	4.1	1.2	1.4	.74
22	2.5	5.2	5.0	13	5.0	62	20	8.4	3.6	1.2	1.4	2.8
23	2.4	7.9	4.4	35	4.7	38	20	12	3.1	1.2	1.4	1.3
24	2.3	7.9	4.3	72	4.6	27	51	16	2.9	1.2	1.3	1.2
25	2.3	6.9	4.3	21	4.5	21	119	13	2.7	1.2	1.1	1.1
26	2.3	5.8	5.8	9.8	4.5	18	61	10	2.7	1.2	1.1	1.0
27	2.2	5.6	5.2	8.0	4.5	16	43	15	2.7	1.1	1.1	1.0
28	2.0	5.0	4.8	6.5	4.5	14	44	35	2.3	1.0	1.1	.83
29	2.0	5.0	5.0	6.0	---	12	55	19	2.3	1.0	1.1	.82
30	2.0	5.0	5.0	5.8	---	11	61	32	2.3	1.0	1.1	.82
31	2.0	---	4.5	5.6	---	10	---	51	---	1.0	2.5	---
TOTAL	84.6	254.2	177.7	384.1	376.1	870.5	969.2	706.4	270.7	48.6	67.7	32.66
MEAN	2.73	8.47	5.73	12.4	13.4	28.1	32.3	22.8	9.02	1.57	2.18	1.09
MAX	4.1	43	21	72	109	159	119	73	29	3.6	16	2.8
MIN	2.0	2.0	3.5	3.3	4.5	4.5	9.4	7.3	2.3	1.0	1.0	.70
CFSM	.58	1.81	1.22	2.65	2.86	6.00	6.90	4.87	1.93	.34	.47	.23
IN.	.67	2.02	1.41	3.05	2.99	6.92	7.70	5.61	2.15	.39	.54	.26

CAL YR 1982 TOTAL 3052.70 MEAN 8.36 MAX 175 MIN 1.5 CFSM 1.79 IN 24.26
WTR YR 1983 TOTAL 4242.46 MEAN 11.6 MAX 159 MIN .70 CFSM 2.48 IN 33.71

01064500 SACO RIVER NEAR CONWAY, NH

LOCATION.--Lat 43°59'27", long 71°05'29", Carroll County, Hydrologic Unit 01060002, on left bank at Odell Falls 1.8 mi downstream from Swift River and Conway.

DRAINAGE AREA.--385 mi^2.

PERIOD OF RECORD.--August 1903 to December 1909, January 1910 to June 1912 (gage heights only), February 1929 to current year. Monthly discharge only for some periods, published in WSP 1301. Prior to 1912, published as "at Center Conway."

REVISED RECORDS.--WSP 1301: 1908-09. WDR ME-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 418.19 ft, National Geodetic Vertical Datum of 1929. Aug. 26, 1903, to June 30, 1912, nonrecording gage at site 0.8 mi downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--60 years (water years 1904-09, 1930-83), 933 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,900 ft^3/s Mar. 27, 1953, gage height, 17.20 ft (from rating curve extended above 23,000 ft^3/s on basis of slope-area measurement of peak flow); maximum gage height, 19.03 ft Mar. 7, 1979, (ice jam); minimum discharge, 40 ft^3/s Mar. 16, 1932, gage height, 1.61 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Jan. 11	1430	12200	a9.10	Apr. 25	1000	11100	8.78
Mar. 20	--	*13600	b9.53	May 3	1200	9950	8.40

a From peak-stage indicator.
b From high water mark.

Minimum discharge, 125 ft^3/s Sept. 15, 16, 21, gage height, 2.04 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	293	221	655	494	620	457	1040	5650	2800	317	199	453
2	265	238	606	480	600	1130	1030	6210	2070	316	300	290
3	248	380	598	456	1370	2520	1080	8400	1650	440	288	229
4	238	335	595	350	1760	1190	1110	6110	1740	351	240	201
5	227	2100	586	291	1600	898	1230	4030	2200	328	214	185
6	219	1920	547	310	1500	807	1410	3020	1660	651	237	174
7	213	949	596	320	1400	750	1490	2520	1410	607	274	165
8	507	706	526	310	1200	740	1440	2360	1250	419	284	156
9	802	592	481	300	1100	752	2270	3340	1100	357	401	145
10	579	515	328	290	1000	863	2130	2980	994	322	408	142
11	450	465	290	5000	900	1710	2070	2100	915	329	280	141
12	381	439	280	3940	880	3040	2470	1820	840	289	820	146
13	347	2170	270	2150	840	2920	2050	1630	781	273	560	143
14	336	1910	260	1570	780	1940	2230	1640	752	259	380	136
15	321	1170	390	1490	750	1700	2100	1610	713	241	300	133
16	311	913	943	1250	720	1620	1820	1790	947	229	280	129
17	310	773	2450	1100	670	1580	2850	1430	815	215	260	134
18	294	691	1120	950	630	1380	2840	1210	777	205	244	147
19	282	631	890	870	620	3800	2140	1100	753	201	228	153
20	277	588	860	800	600	10800	2100	1340	631	194	213	144
21	281	568	666	830	580	4820	2040	1790	562	190	192	134
22	289	626	630	880	560	4960	1750	1400	514	376	184	419
23	271	810	550	929	540	3320	1790	1640	475	530	203	487
24	256	903	520	1590	525	2330	2410	1990	438	301	193	292
25	250	808	529	1850	507	1870	9520	1580	418	271	178	234
26	244	683	731	1420	482	1590	6190	1330	414	248	170	206
27	239	626	699	1090	477	1400	4220	1330	394	218	168	218
28	234	504	592	900	467	1300	4110	2150	396	203	184	182
29	230	596	631	750	---	1200	5400	1660	379	195	193	172
30	227	681	592	680	---	1100	6190	1970	345	195	176	162
31	223	---	487	640	---	1060	---	3660	---	190	268	---
TOTAL	9644	24511	19898	34280	23678	65547	80520	80790	29133	9460	8519	6052
MEAN	311	817	642	1106	846	2114	2684	2606	971	305	275	202
MAX	802	2170	2450	5000	1760	10800	9520	8400	2800	651	820	487
MIN	213	221	260	290	467	457	1030	1100	345	190	168	129
CFSM	.81	2.12	1.67	2.87	2.20	5.49	6.97	6.77	2.52	.79	.71	.53
IN.	.93	2.37	1.92	3.31	2.29	6.33	7.78	7.81	2.81	.91	.82	.58

CAL YR 1982 TOTAL 294293 MEAN 806 MAX 11500 MIN 168 CFSM 2.09 IN 28.44
WTR YR 1983 TOTAL 392032 MEAN 1074 MAX 10800 MIN 129 CFSM 2.79 IN 37.88

01065000 OSSIPEE RIVER AT EFFINGHAM FALLS, NH

LOCATION.--Lat 43°47'44", long 71°03'36", Carroll County, Hydrologic Unit 01060002, on left bank 0.3 mi upstream from bridge on State Highway 153 at Effingham Falls, 0.3 mi downstream from outlet of Ossipee Lake, and 4 mi northwest of Effingham.

DRAINAGE AREA.--330 mi^2.

PERIOD OF RECORD.--Discharge: September 1942 to current year.
Water-quality records: Water year 1955.

GAGE.--Water-stage recorder. Altitude of gage is 390 ft, from topographic map.

REMARKS.--Records good. Flow regulated by Ossipee and Silver Lakes and Pine River Pond, combined capacity, 1,430,000,000 ft^3. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--41 years, 690 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s Mar. 28, 1953, gage height, 11.64 ft; minimum, about 5 ft^3/s during part of several days Nov. 4-20, 1968 (caused by unusual regulation); minimum daily, 11 ft^3/s Oct. 10, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,740 ft^3/s Mar. 21, gage height, 7.95 ft; minimum, 166 ft^3/s Sept. 30; minimum daily, 167 ft^3/s 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	414	273	274	410	622	261	1300	2140	1930	262	209	185
2	410	271	276	408	599	361	1210	2140	1910	267	211	185
3	400	229	278	402	646	562	1190	2330	1790	267	209	186
4	360	191	280	325	1280	801	1220	2490	1940	271	207	186
5	300	241	281	310	1780	886	1250	2450	2050	259	210	186
6	300	279	281	310	1730	868	1300	2300	1800	262	216	185
7	300	352	283	310	1610	837	1330	2070	1620	250	216	185
8	350	341	283	315	1450	810	1350	1840	1520	222	208	183
9	370	401	282	315	1250	796	1370	1660	1380	221	206	183
10	430	531	281	318	1100	791	1370	1540	1020	222	204	182
11	420	598	281	441	950	842	1440	1370	809	221	204	181
12	400	585	280	967	820	1010	1560	1270	773	221	207	180
13	413	585	279	1300	730	1540	1680	1210	568	219	209	180
14	411	601	278	1290	680	1910	1720	1140	403	219	228	178
15	410	734	277	1180	630	1950	1820	1080	422	253	242	177
16	408	764	278	1090	611	1870	1800	919	350	284	220	176
17	406	676	281	919	589	1770	1750	788	413	239	226	176
18	403	671	287	770	578	1670	1830	508	484	219	226	181
19	398	731	289	714	553	1730	1820	414	487	221	207	181
20	327	746	291	669	532	2720	1770	421	424	229	209	180
21	279	716	292	594	511	3630	1720	430	347	226	205	178
22	278	642	294	520	498	3720	1520	441	296	217	202	179
23	278	476	294	516	481	3560	1390	887	270	351	203	176
24	276	358	294	600	469	3200	1360	1170	264	346	201	172
25	276	465	296	697	455	2820	1840	1170	263	211	199	172
26	276	462	295	752	444	2480	2510	1150	261	211	201	171
27	275	359	292	755	428	2150	2650	1110	262	211	209	170
28	273	270	297	735	325	1920	2550	1100	261	210	208	169
29	273	271	297	700	---	1750	2390	1110	261	211	200	168
30	273	273	300	667	---	1600	2230	1160	260	211	193	167
31	273	---	368	645	---	1460	---	1750	---	209	184	---
TOTAL	10660	14092	8939	19944	22351	52275	50240	41558	24838	7442	6479	5358
MEAN	344	470	288	643	798	1686	1675	1341	828	240	209	179
MAX	430	764	368	1300	1780	3720	2650	2490	2050	351	242	186
MIN	273	191	274	310	325	261	1190	414	260	209	184	167

CAL YR 1982 TOTAL 233988 MEAN 641 MAX 3570 MIN 191
WTR YR 1983 TOTAL 264176 MEAN 724 MAX 3720 MIN 167

01072100 SALMON FALLS RIVER AT MILTON, NH

LOCATION.--Lat 43°24'50", long 70°59'15", Strafford County, Hydrologic Unit 01060003, on right bank just downstream from Milton Pond at Milton.

DRAINAGE AREA.--108 mi^2.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 405 ft, from topographic map.

REMARKS.--Records good. Flow regulated by Great East and Lovell Lakes and Horn, Wilson, and Milton (also controls Northeast and Town House) Ponds, combined usable capacity, 1,280,000,000 ft^3. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--15 years, 199 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,500 ft^3/s Mar. 15, 1977, gage height, 6.50 ft; minimum daily, 19 ft^3/s Aug. 30, Sept. 13, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,580 ft^3/s Mar. 20, gage height, 6.02 ft; minimum daily, 39 ft^3/s July 6-10, Aug. 18.

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	109	107	57	144	190	135	373	379	527	47	44	41
2	108	102	57	135	184	155	330	551	417	43	41	41
3	108	115	58	130	345	269	378	801	288	45	40	41
4	107	138	57	142	666	377	468	705	338	42	42	41
5	107	132	55	155	636	384	527	597	457	40	43	41
6	107	139	55	152	508	352	506	502	489	39	44	41
7	104	139	55	150	414	319	455	445	390	39	44	41
8	123	103	88	148	340	298	294	425	312	39	44	41
9	148	89	94	144	296	288	248	401	230	39	44	41
10	150	142	47	139	268	296	284	374	192	39	44	41
11	140	142	47	160	244	441	546	358	205	46	43	41
12	132	142	47	309	230	606	773	239	203	48	43	41
13	123	142	102	382	216	812	707	194	193	47	43	40
14	133	142	137	345	207	821	553	214	179	46	43	40
15	136	93	132	296	195	719	450	225	150	46	42	40
16	143	51	141	267	195	631	417	252	142	46	41	40
17	150	51	135	241	191	576	437	260	140	46	40	40
18	144	52	123	222	172	541	468	255	142	46	39	40
19	136	54	119	208	144	758	506	235	137	44	40	40
20	128	53	134	195	155	2240	479	198	125	44	41	40
21	125	54	136	187	155	2130	397	196	109	44	42	40
22	124	98	132	173	155	1710	368	205	98	44	42	40
23	116	136	141	170	155	1330	359	217	73	44	42	40
24	108	136	127	184	155	949	376	249	57	44	42	40
25	99	136	118	219	154	762	816	246	57	44	42	40
26	97	136	108	245	151	654	942	230	57	44	42	40
27	93	132	130	250	142	581	706	227	54	44	42	41
28	86	131	150	236	138	487	581	276	51	44	42	41
29	107	90	159	221	---	472	423	308	51	44	42	41
30	129	57	164	206	---	539	358	421	51	44	41	61
31	115	---	153	197	---	521	---	546	---	44	41	---
TOTAL	3735	3234	3258	6352	7001	21153	14525	10731	5914	1355	1305	1236
MEAN	120	108	105	205	250	682	484	346	197	43.7	42.1	41.2
MAX	150	142	164	382	666	2240	942	801	527	48	44	61
MIN	86	51	47	130	138	135	248	194	51	39	39	40

CAL YR 1982 TOTAL 67517 MEAN 185 MAX 775 MIN 47
WTR YR 1983 TOTAL 79799 MEAN 219 MAX 2240 MIN 39

01073000 OYSTER RIVER NEAR DURHAM, NH

LOCATION.--Lat 43°08'55", long 70°57'56", Strafford County, Hydrologic Unit 01060003, on left bank 200 ft upstream from highway bridge, 2.5 mi west of Durham, and 7 mi upstream from mouth.

DRAINAGE AREA.--12.1 mi^2.

PERIOD OF RECORD.--October 1934 to current year. October and November 1934 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 70 ft, from topographic map. Prior to Oct. 1, 1964, at datum 1.00 ft higher.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--49 years, 19.4 ft^3/s, 21.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 862 ft^3/s Sept. 11, 1954, gage height, 6.47 ft, present datum; maximum gage height, 8.45 ft, present datum, Mar. 19, 1936; minimum discharge, 0.23 ft^3/s Aug. 18, 19, 25, 26, 27, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base 170 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 3	0045	209	3.43	Apr. 11	0645	209	3.43
Mar. 12	0800	224	3.52	Apr. 25	0415	264	3.74
Mar. 19	2200	*709	5.64				

Minimum discharge, 0.69 ft^3/s Aug. 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	2.0	2.4	11	6.6	21	18	43	37	68	3.5	1.5	3.7
2	1.8	2.4	9.5	5.8	19	88	38	70	45	3.5	1.5	1.8
3	1.7	2.4	8.6	5.2	52	174	38	67	34	3.5	1.5	1.5
4	1.6	2.4	8.3	4.5	70	116	70	51	66	3.3	1.4	1.4
5	1.6	3.3	7.7	4.3	46	76	55	41	68	4.5	1.5	1.3
6	1.6	5.2	7.5	5.7	30	67	44	34	47	14	1.6	1.3
7	1.5	3.9	7.2	8.6	23	60	37	29	35	17	6.4	1.3
8	3.9	3.3	6.7	8.9	20	55	41	25	29	6.7	2.8	1.1
9	5.9	3.2	6.1	7.2	19	70	39	25	23	5.0	2.0	1.2
10	5.7	3.3	5.4	5.9	18	126	38	23	19	3.9	1.6	.99
11	4.1	3.3	5.0	73	17	175	175	21	18	3.3	1.5	1.2
12	3.2	3.3	5.0	48	17	205	100	21	15	3.2	3.9	1.2
13	3.0	18	4.7	36	17	177	68	20	13	3.0	3.5	1.1
14	4.3	18	3.9	24	17	110	49	20	12	2.7	2.4	1.1
15	4.7	15	3.5	19	17	82	43	21	12	2.4	1.8	1.2
16	3.9	14	4.9	16	17	85	38	26	10	2.4	1.8	1.1
17	3.5	10	9.4	16	15	73	57	35	10	2.2	1.5	1.4
18	3.2	8.9	6.5	14	20	63	58	27	9.2	2.1	1.3	1.5
19	3.0	8.0	5.1	14	23	324	46	21	8.6	2.0	1.2	1.8
20	2.8	7.7	5.0	13	20	412	45	26	7.5	1.8	1.1	2.8
21	3.2	7.2	5.2	12	19	157	40	34	6.7	1.8	.91	3.2
22	2.5	6.4	5.2	11	18	194	34	25	5.7	2.5	.91	5.4
23	2.5	6.4	4.7	11	18	117	30	42	5.2	2.7	1.3	5.9
24	2.5	6.1	5.0	45	18	77	73	42	4.5	2.1	1.3	5.2
25	2.4	5.9	5.9	43	18	64	215	34	5.0	2.8	1.2	5.0
26	2.4	5.4	11	35	17	52	107	26	5.0	2.5	1.2	5.4
27	2.4	5.7	11	29	17	45	71	29	4.3	2.0	1.1	4.3
28	2.4	5.2	9.2	22	17	87	55	70	4.5	1.7	1.3	1.2
29	2.5	14	11	18	---	83	45	45	4.7	1.6	1.3	1.2
30	2.4	16	9.5	16	---	65	41	72	3.9	1.6	1.3	1.5
31	2.4	---	7.7	18	---	49	---	95	---	1.6	5.4	---
TOTAL	90.6	216.3	216.4	595.7	640	3546	1833	1154	598.8	112.9	59.02	68.29
MEAN	2.92	7.21	6.98	19.2	22.9	114	61.1	37.2	20.0	3.64	1.90	2.28
MAX	5.9	18	11	73	70	412	215	95	68	17	6.4	5.9
MIN	1.5	2.4	3.5	4.3	15	18	30	20	3.9	1.6	.91	.99
CFSM	.24	.60	.58	1.59	1.89	9.42	5.05	3.07	1.65	.30	.16	.19
IN.	.28	.66	.67	1.83	1.97	10.90	5.63	3.55	1.84	.35	.18	.21

CAL YR 1982 TOTAL 7036.60 MEAN 19.3 MAX 140 MIN 1.2 CFSM 1.60 IN 21.63
WTR YR 1983 TOTAL 9131.01 MEAN 25.0 MAX 412 MIN .91 CFSM 2.07 IN 28.07

01073500 LAMPREY RIVER NEAR NEWMARKET, NH

LOCATION.--Lat 43°06'09", long 70°57'11", Rockingham County, Hydrologic Unit 01060003, on right bank 200 ft upstream from Packers Falls, 2 mi northwest of Newmarket, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--183 mi^2.

PERIOD OF RECORD.--Discharge: July 1934 to current year.
Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 1231: 1936-37.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft, from topographic map.

REMARKS.--Records excellent except those from June 22 to Aug. 31, which are good, and those for winter period and period of no gage-height record Mar. 20 which are fair. Some regulation by Pawtuckaway and Mendums Ponds; combined capacity, about 600,000,000 ft^3. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--49 years, 282 ft^3/s, 20.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,490 ft^3/s Mar. 20, 1936, gage height, 14.88 ft, from rating curve extended above 3,100 ft^3/s on basis of computation of flow over dam at gage height 14.69 ft; minimum daily, 1 ft^3/s Oct. 21, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,570 ft^3/s March 20, gage height, 11.61 ft from high water mark; minimum daily, 7.1 ft^3/s 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	30	98	218	125	310	236	752	663	838	51	19	44
2	29	92	223	105	298	584	639	711	735	51	18	27
3	28	85	200	90	477	1380	553	893	613	50	17	21
4	23	81	173	76	809	1580	719	962	642	47	16	19
5	21	92	158	98	864	1470	776	819	753	46	16	15
6	20	154	147	110	746	1140	746	674	690	74	17	13
7	19	193	138	131	558	915	640	573	605	89	24	13
8	32	180	127	135	396	811	599	488	511	79	21	11
9	54	160	120	121	390	845	599	439	427	67	17	10
10	61	142	110	115	350	1180	579	381	351	61	15	9.6
11	53	127	115	377	330	1630	1290	366	293	53	14	9.5
12	49	118	107	595	310	2330	1540	358	253	47	19	8.9
13	69	178	84	810	300	2490	1520	342	225	42	22	9.0
14	101	254	92	650	300	2360	1160	326	204	38	20	8.7
15	100	255	91	470	290	1900	857	311	182	34	17	8.0
16	119	268	94	330	290	1540	708	329	162	31	16	7.4
17	102	237	123	300	287	1360	788	368	153	29	14	8.1
18	92	227	100	280	320	1180	939	391	145	27	14	8.7
19	88	221	105	260	347	1680	908	365	138	25	13	9.3
20	99	198	100	230	336	4120	812	349	127	24	12	9.5
21	143	178	96	220	316	4310	737	389	113	24	9.7	9.5
22	139	163	90	215	302	3510	679	364	95	32	9.1	15
23	150	153	85	210	294	2610	609	435	79	35	8.8	15
24	133	144	85	350	278	1900	654	511	68	31	7.9	14
25	118	146	100	500	268	1420	1620	499	63	35	7.4	13
26	109	144	138	578	253	1070	1820	468	64	35	7.4	12
27	103	133	153	555	238	837	1720	430	64	29	7.1	12
28	95	131	159	452	236	959	1290	599	61	25	7.4	11
29	91	185	168	365	---	1060	964	528	62	23	7.4	12
30	89	217	157	312	---	991	774	617	56	21	7.4	11
31	104	---	144	298	---	883	---	879	---	20	23	---
TOTAL	2463	4954	4000	9463	10493	50281	27991	15827	8772	1275	443.6	394.2
MEAN	79.5	165	129	305	375	1622	933	511	292	41.1	14.3	13.1
MAX	150	268	223	810	864	4310	1820	962	838	89	24	44
MIN	19	81	84	76	236	236	553	311	56	20	7.1	7.4
CFSM	.43	.90	.71	1.67	2.05	8.86	5.10	2.79	1.60	.23	.08	.07
IN.	.50	1.01	.81	1.92	2.13	10.22	5.69	3.22	1.78	.26	.09	.08

CAL YR 1982 TOTAL 112198.0 MEAN 307 MAX 1920 MIN 17 CFSM 1.68 IN 22.81
WTR YR 1983 TOTAL 136356.8 MEAN 374 MAX 4310 MIN 7.1 CFSM 2.04 IN 27.72

01073600 DUDLEY BROOK NEAR EXETER, NH

LOCATION.--Lat 42°59'37", long 71°01'24", Rockingham County, Hydrologic Unit 01060003, on right bank 2.4 mi upstream from mouth and 3.5 mi west of Exeter.

DRAINAGE AREA.--4.97 mi^2.

PERIOD OF RECORD.--May 1962 to current year.

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

REMARKS.--Records fair except those for winter period, period of no gage-height record, May 25 to June 27, and those below 3.0 ft^3/s, which are poor.

AVERAGE DISCHARGE.--21 years, 7.10 ft^3/s, 19.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 358 ft^3/s Apr. 2, 1973, gage height, 7.74 ft, from rating curve extended above 210 ft^3/s; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 3	1730	103	5.74	Mar. 19	2015	*253	7.04
Mar. 2	2245	218	6.77	Apr. 11	0715	169	6.36
Mar. 12	1100	171	6.38	Apr. 25	0315	193	6.57

Minimum discharge, no flow Aug. 9-11, 21-29, Sept. 10, 11, 13, 14, 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	.12	.40	7.8	1.8	8.1	8.9	9.6	8.3	18	.28	.03	.17
2	.10	.42	4.9	1.3	9.9	88	8.7	11	13	.22	.03	.14
3	.07	.46	3.2	1.1	52	138	9.6	15	11	.20	.02	.14
4	.05	.52	3.9	.90	51	65	40	11	13	.14	.01	.10
5	.03	1.9	2.9	.70	21	39	23	11	18	.14	.01	.05
6	.03	2.6	2.1	1.8	11	28	13	8.1	14	.39	.01	.04
7	.03	2.0	1.4	5.2	6.2	25	9.7	6.2	11	.68	.03	.03
8	.18	1.3	1.2	6.9	4.4	24	12	4.7	8.0	.92	.01	.01
9	.54	.96	1.1	5.3	4.0	39	17	4.7	7.0	.54	.00	.01
10	1.5	.87	.92	2.6	3.9	104	15	4.8	6.0	.25	.00	.00
11	1.4	.72	.76	45	3.8	99	115	4.7	5.2	.17	.00	.00
12	1.0	.75	.64	39	3.8	127	41	5.3	4.8	.14	.07	.01
13	.72	7.6	.54	13	3.7	75	20	5.1	4.3	.14	.07	.00
14	.84	19	.45	6.6	3.6	41	13	4.7	4.0	.10	.04	.00
15	1.0	11	.41	3.8	3.5	29	10	4.7	3.8	.05	.04	.01
16	1.2	10	.97	2.1	3.5	33	9.2	7.6	3.5	.05	.05	.04
17	.67	6.9	2.8	1.9	3.5	31	39	16	3.0	.04	.04	.01
18	.56	4.1	3.0	1.7	8.0	20	32	11	2.5	.04	.01	.03
19	.51	2.7	1.6	1.6	14	125	16	6.1	2.2	.04	.01	.02
20	.48	1.7	1.1	1.5	15	124	17	5.2	1.8	.02	.01	.00
21	.43	1.5	1.0	1.5	16	49	17	8.7	1.5	.04	.00	.00
22	.42	1.3	1.0	2.0	13	35	12	6.1	1.3	.25	.00	.08
23	.42	1.1	.94	3.6	12	30	9.2	13	1.0	.22	.00	.04
24	.42	1.4	.86	17	11	23	30	22	.78	.25	.00	.03
25	.42	1.2	1.6	28	11	16	128	12	.80	.60	.00	.02
26	.43	1.2	5.5	24	10	13	40	10	.92	.35	.00	.01
27	.45	1.4	7.3	18	9.3	11	23	9.0	.60	.17	.00	.01
28	.41	1.3	5.1	11	8.8	20	15	12	.35	.08	.00	.01
29	.39	7.9	4.8	6.8	---	38	11	15	.48	.05	.00	.04
30	.39	14	3.7	4.9	---	18	9.2	12	.35	.04	.01	.04
31	.39	---	2.4	4.9	---	11	---	30	---	.04	.54	---
TOTAL	15.60	108.20	75.89	265.50	325.0	1526.9	764.2	305.0	162.18	6.64	1.04	1.09
MEAN	.50	3.61	2.45	8.56	11.6	49.3	25.5	9.84	5.41	.21	.034	.036
MAX	1.5	19	7.8	45	52	138	128	30	18	.92	.54	.17
MIN	.03	.40	.41	.70	3.5	8.9	8.7	4.7	.35	.02	.00	.00
CFSM	.10	.73	.49	1.72	2.33	9.92	5.13	1.98	1.09	.04	.007	.007
IN.	.12	.81	.57	1.99	2.43	11.43	5.72	2.28	1.21	.05	.01	.01

CAL YR 1982 TOTAL 1928.28 MEAN 5.28 MAX 100 MIN .03 CFSM 1.06 IN 14.43
WTR YR 1983 TOTAL 3557.24 MEAN 9.75 MAX 138 MIN .00 CFSM 1.96 IN 26.62

01075800 STEVENS BROOK NEAR WENTWORTH, NH

LOCATION.--Lat 43°50'12", long 71°53'07", Grafton County, Hydrologic Unit 01070001, on left bank 150 ft upstream from highway bridge, 0.2 mi upstream from mouth, and 2.5 mi southeast of Wentworth.

DRAINAGE AREA.--2.94 mi^2.

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

GAGE.--Water-stage recorder. Altitude of gage is 595 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair, and those below 1.0 ft^3/s, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--20 years, 4.82 ft^3/s, 22.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft^3/s June 30, 1973, gage height, 6.36 ft, from rating curve extended above 120 ft^3/s; minimum, 0.01 ft^3/s several days in 1963-65, 1971, 1975, 1977, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90 ft^3/s and maximums (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Jan. 11	0830	90	2.92	Apr. 24	2045	*109	3.07
Mar. 2	1645	ice jam	*3.25				

Minimum discharge, 0.05 ft^3/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	.21	.19	2.4	1.6	1.8	1.4	3.6	39	17	.24	.56	.30
2	.21	.30	1.9	1.4	1.7	42	4.4	40	8.1	.47	.47	.17
3	.21	.32	1.7	1.0	40	22	4.9	40	4.7	.56	.27	.13
4	.21	.32	1.7	.97	25	9.5	4.2	23	9.0	.32	.19	.12
5	.21	.29	1.7	.90	12	6.3	5.7	13	7.3	.61	.21	.10
6	.19	3.8	1.7	.77	8.0	5.4	7.0	9.5	5.7	.97	.24	.10
7	.19	1.7	2.1	.83	5.6	7.0	7.7	6.6	4.4	.66	.21	.10
8	1.5	1.1	1.6	.90	4.5	6.3	15	6.0	3.6	.43	.15	.09
9	1.6	.90	1.2	.77	3.6	5.2	24	30	3.0	.30	.47	.07
10	1.0	.77	.83	.71	3.0	21	16	18	2.5	.24	.21	.06
11	.71	.66	.83	41	2.4	31	44	10	2.0	.21	.30	.07
12	.51	.61	.77	13	2.1	37	29	10	1.6	.21	2.0	.08
13	.39	8.1	.56	7.0	2.0	17	23	8.1	1.5	.19	1.9	.08
14	.36	3.8	.43	3.5	1.9	9.5	26	6.3	1.2	.17	.83	.10
15	.32	2.0	.66	2.4	1.8	10	15	5.4	1.0	.17	.51	.10
16	.32	1.5	4.4	2.1	1.8	12	12	7.3	.90	.13	.30	.10
17	.32	1.2	6.0	1.9	1.7	12	18	5.7	.83	.12	.21	.09
18	.32	1.1	2.9	1.8	1.7	11	14	4.4	.83	.10	.19	.09
19	.30	.97	2.1	1.6	1.6	57	12	3.8	1.1	.09	.17	.08
20	.27	.77	1.8	1.5	1.6	55	21	6.0	.83	.08	.15	.08
21	.24	.71	1.4	1.4	1.5	29	15	6.6	.66	.06	.13	.08
22	.24	.71	1.0	1.3	1.5	29	12	4.9	.47	.10	.13	.43
23	.24	1.5	.90	2.0	1.5	14	14	5.4	.32	.12	.21	.27
24	.24	2.2	.90	15	1.5	9.5	45	6.0	.30	.12	.15	.21
25	.21	1.9	.97	7.0	1.4	8.6	72	4.7	.66	.19	.10	.17
26	.21	1.4	2.6	5.0	1.4	7.7	46	4.0	.61	.13	.10	.15
27	.21	1.1	2.5	3.7	1.4	4.9	37	11	.51	.10	.09	.15
28	.21	.83	2.2	3.0	1.4	4.0	37	12	.43	.09	.09	.15
29	.21	1.0	3.0	2.4	---	4.2	38	8.6	.36	.09	.09	.15
30	.19	2.0	2.8	2.2	---	6.0	42	26	.32	.12	.10	.15
31	.19	---	1.9	2.0	---	5.7	---	29	---	.12	.32	---
TOTAL	11.74	43.75	57.45	130.65	135.4	500.2	664.5	410.3	81.73	7.51	11.05	4.02
MEAN	.38	1.46	1.85	4.21	4.84	16.1	22.2	13.2	2.72	.24	.36	.13
MAX	1.6	8.1	6.0	41	40	57	72	40	17	.97	2.0	.43
MIN	.19	.19	.43	.71	1.4	1.4	3.6	3.8	.30	.06	.09	.06
CFSM	.13	.50	.63	1.43	1.65	5.48	7.55	4.49	.93	.08	.12	.04
IN.	.15	.55	.73	1.65	1.71	6.33	8.41	5.19	1.03	.09	.14	.05

CAL YR 1982 TOTAL 1496.46 MEAN 4.10 MAX 82 MIN .05 CFSM 1.40 IN 18.93
WTR YR 1983 TOTAL 2058.30 MEAN 5.64 MAX 72 MIN .06 CFSM 1.92 IN 26.03

01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH

LOCATION.--Lat 43°45'33", long 71°41'10", Grafton County, Hydrologic Unit 01070001, on right bank 150 ft downstream from bridge at Plymouth and 0.3 mi downstream from Baker River.
DRAINAGE AREA.--622 mi^2.
PERIOD OF RECORD.--Discharge: October 1903 to current year. Records for April 1886 to September 1903, published in WSP 124, are unreliable and should not be used.
Water-quality records: Water years 1953, 1967-74, 1976-79.
REVISED RECORDS.--WSP 471: 1912-14. WSP 726: Drainage area. WSP 1231: 1904-11, 1913-14, 1917-18, 1919(M), 1920-25, 1926-27(M), 1929-31(M). WSP 1721: 1959(M). See also PERIOD OF RECORD.
GAGE.--Water-stage recorder. Datum of gage is 457.07 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1910, nonrecording gage at sites 150 ft and 200 ft upstream at present datum or datum 1.11 ft lower. Jan. 1, 1910, to Sept. 30, 1926, nonrecording gage at site 200 ft upstream at present datum.
REMARKS.--Records good except those for winter period, which are fair. Some diurnal fluctuation during period 1940-52 caused by powerplants upstream. Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--80 years, 1,358 ft^3/s, 29.65 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,400 ft^3/s Mar. 19, 1936, gage height, 29.0 ft, from floodmarks, from rating curve extended above 43,000 ft^3/s on basis of computations of flow over dam at gage heights 23.0 ft, 27.4 ft, and 29.0 ft; minimum, 39 ft^3/s Oct. 1, 3, 4, 1948; minimum daily, 45 ft^3/s Sept. 20, 1923.
EXTREMES FOR CURRENT YEAR.--Maximum discharge 15,800 ft^3/s May 3, gage height 10.64 ft, no other peak above base of 12,600 ft^3/s, minimum discharge 135 cfs 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	260	207	1030	650	680	560	957	7510	5240	325	225	504
2	235	230	914	600	550	900	1010	8310	3350	325	587	360
3	220	417	863	500	4000	2300	1100	13300	2470	388	636	281
4	207	355	821	390	7800	1950	1210	9630	2420	355	429	235
5	199	2030	805	340	3500	1400	1320	6050	2980	325	330	211
6	191	2550	748	450	1600	900	1520	4090	2200	813	292	195
7	191	1100	813	500	1300	1250	1720	3250	1820	608	287	183
8	423	805	724	500	1100	1100	1880	2950	1550	453	325	171
9	914	671	643	400	1000	900	2940	5240	1270	376	465	159
10	587	567	580	350	800	1100	2870	4850	1130	340	532	159
11	453	504	510	3500	700	2500	3370	3440	1020	309	365	159
12	376	472	450	5000	740	3700	3920	2980	922	298	821	167
13	335	2980	410	2500	760	3580	3010	2540	829	298	1050	163
14	345	2980	380	2000	760	1820	3000	2370	756	270	636	147
15	365	1440	420	1100	740	1540	2860	2270	693	250	465	143
16	360	1080	900	820	820	1640	2310	2750	679	235	376	135
17	345	880	2900	840	790	1760	3120	2150	764	220	330	139
18	320	800	1500	700	770	1570	3720	1680	772	207	292	151
19	298	750	800	500	690	3500	2670	1440	764	199	270	163
20	276	710	1000	530	620	9720	2630	2050	686	191	245	155
21	276	680	1050	590	610	5860	2660	2960	587	191	220	143
22	276	640	900	600	660	4590	2180	2120	525	245	203	567
23	260	974	700	800	570	3640	2070	2320	472	453	245	594
24	245	1130	660	1600	600	2270	2450	2830	429	303	235	345
25	240	1100	1000	2500	590	1630	7810	2250	417	260	199	265
26	230	871	1100	1500	570	1360	8030	1770	472	240	187	225
27	225	772	1300	980	540	1230	5350	2140	420	215	187	207
28	215	622	1100	910	480	1170	4760	3050	405	199	345	191
29	215	716	1200	800	---	1150	5800	2310	376	191	314	183
30	211	974	800	830	---	992	7050	3420	345	199	260	175
31	207	---	680	860	---	940	---	6390	---	203	298	---
TOTAL	9500	30007	27701	34140	34340	68522	95297	120410	36763	9484	11651	6875
MEAN	306	1000	894	1101	1226	2210	3177	3884	1225	306	376	229
MAX	914	2980	2900	5000	7800	9720	8030	13300	5240	813	1050	594
MIN	191	207	380	340	480	560	957	1440	345	191	187	135
CFSM	.49	1.61	1.44	1.77	1.97	3.55	5.11	6.24	1.97	.49	.61	.37
IN.	.57	1.79	1.66	2.04	2.05	4.10	5.70	7.20	2.20	.57	.70	.41

CAL YR 1982 TOTAL 440780 MEAN 1208 MAX 19500 MIN 135 CFSM 1.94 IN 26.36
WTR YR 1983 TOTAL 484690 MEAN 1328 MAX 13300 MIN 135 CFSM 2.14 IN 28.99

01077000 SQUAM RIVER AT ASHLAND, NH

LOCATION.--Lat 43°42'19", long 71°37'49", Grafton County, Hydrologic Unit 01070001, on right bank 200 ft upstream from highway bridge, 0.7 mi north of Ashland, and 1.4 mi downstream from Little Squam Lake.

DRAINAGE AREA.--57.6 mi^2.

PERIOD OF RECORD.-Discharge: August 1939 to current year.
Water-quality records: Water year 1957.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 545 ft, from topographic map.

REMARKS.--Records good except those below 20 ft^3/s, which are fair. Flow completely regulated by Squam and Little Squam Lakes.

AVERAGE DISCHARGE.--44 years, 88.5 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,090 ft^3/s July 4, 1973, gage height, 14.29 ft; minimum daily, 1.0 ft^3/s July 4-7, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 499 ft^3/s Mar. 22, gage height, 11.94 ft; minimum daily, 4.4 ft^3/s July 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	60	61	59	60	103	80	156	159	207	40	63	61
2	59	62	59	60	102	62	157	253	206	5.3	63	61
3	60	61	59	60	106	60	157	311	178	5.6	63	61
4	60	61	59	60	110	60	158	310	164	5.6	63	61
5	60	62	60	60	113	60	158	309	165	8.5	63	61
6	60	61	61	61	113	60	158	217	192	8.4	63	61
7	62	61	62	61	113	60	158	160	206	6.3	63	61
8	64	61	61	61	113	60	159	160	178	6.9	63	61
9	64	63	61	61	113	74	159	160	163	6.9	63	62
10	64	61	61	61	113	84	159	159	162	7.7	63	61
11	63	60	61	85	113	127	243	159	160	7.4	63	61
12	63	59	61	101	113	157	299	158	160	7.5	63	61
13	63	60	61	100	113	154	298	158	114	4.4	63	61
14	63	60	61	100	113	155	211	158	87	42	63	61
15	63	60	61	100	113	212	157	159	117	63	63	61
16	63	60	61	100	113	255	157	158	134	63	63	61
17	63	60	61	100	113	256	158	114	133	63	63	61
18	63	60	61	100	113	311	158	86	133	64	63	61
19	63	59	61	100	115	361	245	86	134	65	63	61
20	63	59	61	100	115	419	297	86	133	63	63	61
21	63	59	61	100	114	491	296	86	132	63	63	61
22	62	59	61	100	113	494	214	86	133	62	63	61
23	63	59	61	100	113	376	156	88	132	62	63	61
24	63	59	61	100	112	303	158	136	97	63	63	61
25	62	59	61	102	111	221	260	160	71	63	63	61
26	61	59	61	103	111	156	310	160	71	63	62	60
27	61	59	60	103	111	156	309	160	71	63	61	60
28	61	59	60	103	111	157	210	160	71	63	63	60
29	61	59	60	103	---	156	158	160	70	63	62	60
30	61	59	60	103	---	156	159	162	69	63	61	60
31	61	---	60	103	---	156	---	192	---	63	62	---
TOTAL	1922	1801	1878	2711	3129	5889	6032	5070	4043	1234.5	1946	1826
MEAN	62.0	60.0	60.6	87.5	112	190	201	164	135	39.8	62.8	60.9
MAX	64	63	62	103	115	494	310	311	207	65	63	62
MIN	59	59	59	60	102	60	156	86	69	4.4	61	60

CAL YR 1982 TOTAL 33219.4 MEAN 91.0 MAX 301 MIN 4.8
WTR YR 1983 TOTAL 37481.5 MEAN 103 MAX 494 MIN 4.4

01078000 SMITH RIVER NEAR BRISTOL, NH

LOCATION.--Lat 43°34'04", long 71°44'54", Merrimack County, Hydrologic Unit 01070001, on right bank in Hill, 1.5 mi upstream from mouth, and 1.8 mi southwest of Bristol.

DRAINAGE AREA.--85.8 mi^2.

PERIOD OF RECORD.--Discharge: May 1918 to current year.
Water-quality records: Water years 1957, 1976-79.

REVISED RECORDS.--WSP 711: Drainage area. WSP 781: 1934. WSP 1231: 1919, 1920-21(M), 1922-31, 1932-33(M), 1941-43.

GAGE.--Water-stage recorder. Datum of gage is 449.80 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Nov. 25, 1933, nonrecording gage at site 1.5 mi upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Prior to 1954, some diurnal fluctuation caused by small mill upstream; greater fluctuation prior to 1941. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--65 years, 143 ft^3/s, 22.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft^3/s Mar. 19, 1936, gage height, 16.09 ft, from floodmarks, from rating curve extended above 2,700 ft^3/s on basis of contracted-opening measurement of peak flow; minimum daily, 2.7 ft^3/s Aug. 2, 1933.
Maximum stage since at least 1885, that of Mar. 19, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 19	2100	*1650	6.54	Apr. 25	1730	1190	5.67

Minimum discharge, 7.8 ft^3/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	18	18	55	56	63	57	178	364	485	26	18	62
2	16	18	54	47	59	250	198	542	355	26	20	40
3	14	21	49	39	375	816	227	760	250	30	20	29
4	13	22	46	33	762	600	256	684	296	28	16	23
5	13	59	44	32	619	342	300	477	404	30	14	19
6	12	97	42	34	332	235	338	328	295	57	20	17
7	12	62	41	35	196	215	359	258	223	43	37	15
8	41	48	35	35	155	193	393	222	183	33	28	13
9	65	41	30	31	134	166	473	292	149	27	24	12
10	60	36	25	30	105	255	440	356	126	23	19	11
11	46	33	27	150	84	515	777	288	110	20	19	11
12	35	32	24	615	76	832	906	306	98	20	49	11
13	30	85	22	360	70	821	731	274	85	19	56	10
14	30	169	22	200	68	490	558	229	82	18	36	9.4
15	31	105	25	130	66	353	443	206	86	16	26	9.9
16	31	75	34	96	65	371	374	208	67	15	21	9.3
17	29	61	80	80	65	413	529	190	60	14	18	9.3
18	27	53	71	65	64	354	548	162	114	14	17	10
19	26	47	50	55	63	1020	452	143	95	13	15	9.3
20	24	44	48	50	62	1440	547	172	63	13	13	9.0
21	23	42	43	48	60	1090	580	237	52	13	12	8.8
22	22	41	39	45	60	920	455	195	44	13	11	26
23	21	43	37	44	59	677	371	216	39	11	12	20
24	20	46	36	121	59	415	460	334	34	12	11	18
25	19	44	35	194	58	288	1120	295	34	13	10	15
26	19	42	50	161	58	231	983	225	35	12	10	13
27	19	38	60	121	58	202	698	263	35	11	9.7	12
28	19	34	80	93	57	195	475	365	36	11	12	11
29	19	40	99	75	---	213	358	279	34	10	13	10
30	18	46	97	67	---	190	350	314	29	10	13	9.7
31	18	---	69	64	---	175	---	516	---	9.9	77	---
TOTAL	790	1542	1469	3206	3952	14334	14877	9700	3998	610.9	676.7	482.7
MEAN	25.5	51.4	47.4	103	141	462	496	313	133	19.7	21.8	16.1
MAX	65	169	99	615	762	1440	1120	760	485	57	77	62
MIN	12	18	22	30	57	57	178	143	29	9.9	9.7	8.8
CFSM	.30	.60	.55	1.20	1.64	5.39	5.78	3.65	1.55	.23	.25	.19
IN.	.34	.67	.64	1.39	1.71	6.21	6.45	4.21	1.73	.26	.29	.21

CAL YR 1982 TOTAL 44374.8 MEAN 122 MAX 1600 MIN 8.8 CFSM 1.42 IN 19.24
WTR YR 1983 TOTAL 55638.3 MEAN 152 MAX 1440 MIN 8.8 CFSM 1.77 IN 24.12

01080000 LAKE WINNIPESAUKEE AT WEIRS BEACH, NH

LOCATION.--Lat 43°36'27", long 71°27'30", Belknap County, Hydrologic Unit 01070002, 1,300 ft north of highway bridge at Weirs Beach.

DRAINAGE AREA.--363 mi^2 at outlet at Lakeport.

PERIOD OF RECORD.--Gage heights: September 1933 to current year. Prior to November 1937, monthend contents only, published in WSP 1301. Prior to October 1970, published as "at The Weirs."

REVISED RECORDS.--WDR NH-VT-78-1: 1938-77 (datum correction).

GAGE.--Water-stage recorder. Datum of gage is 499.92 ft National Geodetic Vertical Datum of 1929. Prior to November 1937, nonrecording gage at lake outlet at Lakeport at datum 0.63 ft, corrected, higher. Nov. 24, 1937 to Nov. 7, 1965, water-stage recorder at site 500 ft south at present datum.

REMARKS.--Lake used for recreation and conservation for development of water power. Usable capacity, 7,220,000,000 ft^3 between elevations 500.65 ft and 504.32 ft National Geodetic Vertical Datum of 1929. Stage regulated at outlet and by Wentworth, Merrymeeting (Reservoirs in Merrimack River basin), and other lakes. Contents given herein are computed from gage height at 2400 on last day of month, eliminating the effect of seiche and wind action.

Capacity table (gage height, in feet, and contents, in millions of cubic feet)

2.0	13,880
3.0	15,840
4.0	17,840
5.0	19,850

EXTREMES FOR PERIOD OF RECORD.--Maximum daily gage height, 5.86 ft May 22, 23, 1954; minimum daily, 0.63 ft Dec. 11, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 4.61 ft June 5, 6; minimum daily, 2.85 ft Jan. 4, 8.

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	3.42	3.05	3.01	2.90	3.42	3.47	4.28	4.31	4.58	4.16	3.74	3.42
2	3.38	3.05	3.01	2.89	3.42	3.50	4.27	4.42	4.56	4.16	3.74	3.39
3	3.38	3.04	3.01	2.86	3.52	3.58	4.29	4.49	4.54	4.16	3.74	3.37
4	3.36	3.04	3.00	2.85	3.60	3.62	4.33	4.50	4.58	4.15	3.72	3.36
5	3.35	3.07	3.01	2.86	3.61	3.63	4.33	4.50	4.61	4.17	3.71	3.34
6	3.34	3.06	3.01	2.87	3.59	3.67	4.33	4.47	4.61	4.24	3.71	3.33
7	3.33	3.04	2.99	2.87	3.57	3.68	4.33	4.43	4.58	4.23	3.70	3.29
8	3.40	3.02	2.99	2.85	3.60	3.71	4.34	4.39	4.54	4.20	3.68	3.25
9	3.41	3.00	2.96	2.86	3.58	3.74	4.33	4.32	4.49	4.15	3.67	3.23
10	3.38	2.97	2.96	2.86	3.56	3.76	4.33	4.31	4.45	4.11	3.66	3.22
11	3.36	2.97	2.95	3.03	3.54	3.80	4.46	4.29	4.42	4.10	3.66	3.20
12	3.35	2.97	2.94	3.11	3.55	3.92	4.49	4.27	4.39	4.09	3.70	3.18
13	3.33	3.03	2.92	3.13	3.55	4.04	4.49	4.27	4.39	4.06	3.64	3.15
14	3.34	3.06	2.91	3.14	3.53	4.08	4.47	4.28	4.41	4.04	3.61	3.13
15	3.33	3.06	2.91	3.14	3.55	4.11	4.42	4.29	4.41	4.02	3.59	3.09
16	3.31	3.07	2.93	3.14	3.54	4.12	4.38	4.29	4.41	4.00	3.58	3.08
17	3.23	3.07	2.95	3.14	3.54	4.11	4.39	4.30	4.40	3.96	3.56	3.05
18	3.24	3.07	2.96	3.20	3.55	4.10	4.38	4.29	4.39	3.96	3.54	3.02
19	3.23	3.06	2.95	3.23	3.55	4.19	4.38	4.30	4.38	3.93	3.51	3.00
20	3.23	3.06	2.93	3.23	3.55	4.37	4.35	4.33	4.37	3.91	3.47	2.99
21	3.20	3.05	2.90	3.23	3.54	4.44	4.30	4.35	4.35	3.89	3.41	2.98
22	3.17	3.06	2.88	3.22	3.51	4.50	4.26	4.36	4.33	3.85	3.42	3.04
23	3.15	3.06	2.90	3.22	3.51	4.51	4.20	4.43	4.31	3.84	3.39	3.03
24	3.13	3.03	2.92	3.36	3.52	4.51	4.21	4.46	4.27	3.84	3.39	3.00
25	3.12	3.01	2.92	3.38	3.51	4.51	4.35	4.46	4.27	3.84	3.37	2.98
26	3.11	3.02	2.88	3.39	3.50	4.47	4.36	4.47	4.27	3.81	3.35	2.96
27	3.09	2.98	2.91	3.39	3.48	4.41	4.36	4.47	4.25	3.79	3.33	2.93
28	3.07	2.98	2.92	3.40	3.46	4.41	4.34	4.46	4.24	3.77	3.33	2.91
29	3.07	3.01	2.91	3.41	---	4.35	4.29	4.45	4.22	3.76	3.33	2.90
30	3.06	3.00	2.91	3.41	---	4.33	4.31	4.50	4.20	3.74	3.31	2.88
31	3.05	---	2.91	3.42	---	4.31	---	4.58	---	3.74	3.43	---
MEAN	3.26	3.03	2.94	3.13	3.53	4.06	4.35	4.39	4.41	3.99	3.55	3.12
MAX	3.42	3.07	3.01	3.42	3.61	4.51	4.49	4.58	4.61	4.24	3.74	3.42
MIN	3.05	2.97	2.88	2.85	3.42	3.47	4.20	4.27	4.20	3.74	3.31	2.88
(†)	15960	15880	15630	16680	16760	18440	18480	19020	18180	17300	16700	15610
(‡)	-269	-30.9	-93.3	+392	-33.1	+627	+15.4	+202	-324	-329	-224	-421

CAL YR 1982 MEAN 3.47 MAX 4.72 MIN 2.20 (†) -32.7
WTR YR 1983 MEAN 3.65 MAX 4.61 MIN 2.85 (‡) -39.0

† Contents, in millions of cubic feet at 2400 on last day of month.
‡ Change in contents, equivalent in cubic feet per second.

01080500 LAKE WINNIPESAUKEE OUTLET AT LAKEPORT, NH

LOCATION.--Lat 43°32'57", long 71°27'54", Belknap County, Hydrologic Unit 01070002, 100 ft upstream from highway bridge across Paugus Bay at Lakeport.

DRAINAGE AREA.--363 mi^2.

PERIOD OF RECORD.--Discharge: January 1860 to December 1911 (monthly gage heights only, published in WSP 301), June 1933 to September 1983 (discontinued).
Water-quality records: Water years 1954-55.

GAGE.--Water-stage recorder, Keeler deflection meter, and measuring flume. Datum of gage is 500.55 ft National Geodetic Vertical Datum of 1929. January 1860 to December 1911, nonrecording gage at site 150 ft downstream at same datum. June 1, 1933, to Sept. 30, 1936, nonrecording gage and continuous-recording current meter at present site and datum. Oct. 1, 1936, to May 23, 1944, discharge computed from flow over spillway and through gates and wheels at site 150 ft downstream.

REMARKS.--Records fair. Flow completely regulated by Winnipesaukee (station 01080000), Wentworth, Merrymeeting (Reservoirs in Merrimack River basin), and other lakes. Daily discharge computed from relation between discharge, stage, and deflection of vane in measuring flume.

AVERAGE DISCHARGE.--50 years, 536 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,890 ft^3/s Mar. 31, 1936; no flow Sept. 29, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,300 ft^3/s Apr. 21; minimum daily, 240 ft^3/s Sept. 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	250	250	250	280	560	560	1300	1800	1670	325	310	275
2	250	250	250	280	560	565	1270	1900	1640	315	310	275
3	250	250	250	280	560	570	1270	2000	1450	315	310	255
4	250	250	250	280	890	575	1270	2100	1260	315	305	255
5	250	250	250	280	1070	575	1270	2200	1260	315	305	255
6	250	260	250	280	1070	575	1270	2200	1490	320	300	245
7	275	260	250	270	1070	575	1270	2100	1590	320	300	240
8	300	260	250	260	1070	575	1440	2100	1580	320	300	270
9	295	260	250	260	1070	955	1540	1910	1570	325	300	270
10	290	260	250	260	1070	1190	1540	1700	1170	325	300	270
11	290	260	250	265	780	1220	1910	1450	915	315	300	270
12	290	260	250	265	530	1680	2100	895	915	315	300	270
13	290	255	250	265	530	1940	2130	655	565	295	300	270
14	290	255	250	270	530	1940	2160	635	355	295	300	270
15	290	255	250	270	530	1940	2150	635	360	315	300	265
16	300	255	250	270	530	1940	1980	630	360	300	290	265
17	295	255	250	270	535	1940	1980	630	350	300	290	250
18	305	255	250	270	540	1940	1980	450	345	300	280	250
19	305	255	250	270	540	1920	2070	345	345	300	280	250
20	295	250	250	270	545	1900	2260	340	335	290	270	250
21	295	250	250	270	550	2000	2300	335	330	310	270	245
22	295	250	250	270	550	2070	2150	335	335	290	275	245
23	250	250	250	270	550	2070	2070	535	325	290	275	245
24	250	260	250	270	550	2070	2100	655	330	290	275	245
25	250	260	260	450	550	2050	2060	645	330	290	275	245
26	250	260	270	560	560	2040	2040	645	330	290	275	245
27	250	250	275	560	560	2040	1960	1060	320	295	290	245
28	250	250	275	560	560	2040	1770	1260	320	295	290	245
29	250	250	275	560	---	1700	1800	1230	320	295	290	245
30	250	250	275	560	---	1530	1800	1240	330	310	275	245
31	250	---	275	560	---	1530	---	1540	---	310	275	---
TOTAL	8450	7635	7905	10305	19010	46215	54210	36155	22795	9485	9015	7670
MEAN	273	255	255	332	679	1491	1807	1166	760	306	291	256
MAX	305	260	275	560	1070	2070	2300	2200	1670	325	310	275
MIN	250	250	250	260	530	560	1270	335	320	290	270	240

CAL YR 1982 TOTAL 210535 MEAN 577 MAX 1820 MIN 250
WTR YR 1983 TOTAL 238850 MEAN 654 MAX 2300 MIN 240

01081000 WINNIPESAUKEE RIVER AT TILTON, NH

LOCATION.--Lat 43°26'31", long 71°35'20", Belknap County, Hydrologic Unit 01070002, on right bank at Tilton and 0.3 mi upstream from Packer Brook.

DRAINAGE AREA.--471 mi^2.

PERIOD OF RECORD.--Discharge: January 1937 to current year.
Water-quality records: Water year 1953.

REVISED RECORDS.--WSP 1901: 1960.

GAGE.--Water-stage recorder. Datum of gage is 441.87 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by powerplants prior to 1967 and by Winnipesaukee (station 01080000), Winnisquam 4.5 mi upstream, Wentworth, Merrymeeting (Reservoirs in Merrimack River basin), and other lakes upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 704 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,810 ft^3/s Sept. 21, 1938, gage height, 7.90 ft; maximum gage height, 7.93 ft Mar. 27, 1953; minimum daily discharge, 48 ft^3/s Aug. 31, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,270 ft^3/s Apr. 25, gage height, 7.26 ft, minimum daily, 239 ft^3/s Sept. 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	293	264	301	350	580	639	1770	2270	2030	324	279	271
2	289	270	307	346	560	807	1530	2470	1970	317	277	241
3	277	272	308	340	850	1240	1510	2790	1860	331	272	240
4	273	273	311	347	1170	1370	1670	2780	1640	333	270	239
5	269	306	300	321	1320	1220	1680	2770	1690	333	269	245
6	266	334	297	349	1280	1120	1610	2700	1730	393	265	262
7	271	329	292	334	1280	1030	1570	2600	1940	421	256	252
8	350	321	289	326	1290	790	1590	2510	1920	393	280	250
9	395	325	288	323	1280	857	1660	2490	1870	362	276	279
10	377	313	289	322	1260	1180	1670	2370	1720	347	271	275
11	349	297	287	589	1240	1410	2090	2160	1300	327	319	268
12	337	291	276	764	1180	1920	2460	1880	1180	320	299	261
13	331	398	266	654	1090	2690	2390	1450	955	322	275	256
14	344	468	260	546	924	2580	2370	1050	488	317	265	255
15	346	433	258	500	633	2490	2400	938	434	315	259	260
16	345	406	279	460	612	2450	2450	883	417	321	256	257
17	332	377	354	440	620	2410	2610	652	407	310	257	269
18	319	360	340	410	639	2360	2730	510	419	295	261	265
19	307	346	310	545	655	2610	2700	348	464	295	275	257
20	296	333	290	589	652	3180	2650	355	451	298	266	263
21	299	323	300	450	638	2950	2650	400	436	295	259	277
22	304	320	316	379	639	3050	2640	414	412	298	287	374
23	298	336	311	386	647	2950	2540	505	395	292	277	358
24	294	323	340	492	665	2840	2500	735	383	277	243	326
25	292	300	337	607	665	2720	3090	763	375	286	248	298
26	291	291	344	838	642	2600	3090	756	367	283	305	278
27	274	291	374	760	636	2500	2810	851	355	276	311	267
28	261	292	358	730	635	2520	2630	1220	362	268	309	261
29	262	296	368	680	---	2500	2500	1270	354	266	264	258
30	262	299	363	650	---	2310	2390	1350	343	266	309	267
31	262	---	355	620	---	2030	---	1730	---	267	293	---
TOTAL	9465	9787	9668	15447	24282	63323	67950	45970	28667	9748	8552	8129
MEAN	305	326	312	498	867	2043	2265	1483	956	314	276	271
MAX	395	468	374	838	1320	3180	3090	2790	2030	421	319	374
MIN	261	264	258	321	560	639	1510	348	343	266	243	239
CFSM	.65	.69	.66	1.06	1.84	4.34	4.81	3.15	2.03	.67	.59	.58
IN.	.75	.77	.76	1.22	1.92	5.00	5.37	3.63	2.26	.77	.68	.64

CAL YR 1982 TOTAL 274864 MEAN 753 MAX 2670 MIN 258 CFSM 1.60 IN 21.71
WTR YR 1983 TOTAL 300988 MEAN 825 MAX 3180 MIN 239 CFSM 1.75 IN 23.77

01083000 NUBANUSIT BROOK NEAR PETERBOROUGH, NH

LOCATION.--Lat 42°53'10", long 71°58'24", Hillsborough County, Hydrologic Unit 01070003, on left bank 1.2 mi downstream from Edward MacDowell Reservoir, 1.3 mi northwest of Peterborough, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--46.9 mi^2.

PERIOD OF RECORD.--October 1920 to September 1931, July 1945 to current year. Monthly discharge only October 1920, published in WSP 1301.

REVISED RECORDS.--WSP 561: 1921(M). WSP 1051: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 790 ft, from topographic map. Prior to Oct. 1, 1931, at site 550 ft downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by mills and Nubanusit Lake, Edward MacDowell Reservoir since 1950 (Reservoirs in Merrimack River basin), and other reservoirs upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--49 years, 84.5 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft^3/s Apr. 11, 1931, gage height, 5.59 ft, site and datum then in use, from rating curve extended above 380 ft^3/s; minimum daily, 0.5 ft^3/s Aug. 1, 1926. Maximum discharge since construction of Edward MacDowell Reservoir in 1950, 699 ft^3/s Apr. 12, 1960, gage height, 4.54 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 608 ft^3/s Mar. 24, gage height, 4.17 ft; minimum daily, 2.6 ft^3/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	26	9.2	52	60	65	38	226	204	207	35	5.2	18
2	21	9.2	52	45	40	61	92	259	217	23	3.3	7.1
3	21	9.2	51	36	80	96	26	265	157	16	3.3	3.2
4	21	8.6	40	36	287	163	149	250	137	16	3.3	3.1
5	16	11	33	36	359	217	307	250	157	20	3.4	3.2
6	12	9.2	33	37	261	147	334	225	190	16	5.7	3.3
7	12	8.9	33	37	137	111	316	184	169	11	4.4	3.7
8	15	8.9	32	37	113	147	284	140	118	11	3.4	4.1
9	24	8.9	32	37	100	169	244	125	99	11	3.3	3.8
10	37	21	32	53	95	188	119	172	77	11	3.2	3.5
11	41	36	32	95	90	198	91	176	55	8.4	3.4	3.7
12	41	40	32	109	90	104	223	143	72	5.7	22	3.7
13	40	53	29	112	90	176	381	126	58	5.7	33	3.3
14	40	72	18	138	90	366	504	113	35	5.7	32	3.5
15	28	101	14	188	90	482	396	101	58	5.7	26	4.0
16	21	91	13	196	100	463	116	82	79	5.7	15	4.0
17	21	68	40	184	85	471	298	109	55	5.7	9.1	4.2
18	21	54	73	149	75	323	471	126	37	5.7	7.1	4.1
19	21	29	82	135	65	49	434	140	37	5.5	5.0	3.8
20	21	21	82	120	58	109	422	67	25	5.5	2.7	3.8
21	21	36	79	105	50	128	529	79	16	5.7	2.6	3.7
22	19	42	59	100	45	244	532	149	23	5.2	2.8	6.6
23	15	22	48	95	45	538	504	133	33	5.5	2.9	15
24	15	8.9	49	90	50	594	190	176	27	6.2	2.8	23
25	15	14	51	88	64	577	143	263	27	6.2	2.7	23
26	15	26	71	125	69	558	332	250	21	5.9	2.7	38
27	13	31	103	172	65	351	440	202	16	5.9	2.7	49
28	9.7	30	115	160	48	230	469	207	17	5.9	2.7	40
29	8.9	45	111	95	---	482	318	180	17	5.9	2.9	26
30	8.9	53	95	170	---	477	219	169	28	5.9	2.9	15
31	8.9	---	67	138	---	330	---	204	---	5.5	16	---
TOTAL	649.4	977.0	1653	3178	2806	8587	9109	5269	2264	293.1	237.5	330.4
MEAN	20.9	32.6	53.3	103	100	277	304	170	75.5	9.45	7.66	11.0
MAX	41	101	115	196	359	594	532	265	217	35	33	49
MIN	8.9	8.6	13	36	40	38	26	67	16	5.2	2.6	3.1

CAL YR 1982 TOTAL 38168.4 MEAN 105 MAX 550 MIN 8.6
WTR YR 1983 TOTAL 35353.4 MEAN 96.9 MAX 594 MIN 2.6

01085500 CONTOOCOOK RIVER BELOW HOPKINTON DAM, AT WEST HOPKINTON, NH

LOCATION.--Lat 43°11'31", long 71°44'51", Merrimack County, Hydrologic Unit 01070003, on right bank 400 ft downstream from covered bridge at West Hopkinton, 0.2 mi downstream from Hopkinton Dam, and 5.9 mi upstream from Warner River.

DRAINAGE AREA.--427 mi^2.

PERIOD OF RECORD.--August 1903 to April 1907 (no winter records), August 1963 to current year. Published as "at West Hopkinton" 1903-7.

GAGE.--Water-stage recorder. Altitude of gage is 355 ft, from topographic map. August 1903 to April 1907, nonrecording gage at site 400 ft upstream at different datum.

REMARKS.--Records good except those for winter period, period of backwater from grass, June 14 to July 27, and period of no gage-height record July 28 to Sept. 8, which are fair. Flow regulated by powerplants and by Nubanusit Lake, Edward Macdowell Reservoir since 1950, Highland Lake, Lake Franklin Pierce, Hopkinton Lake since 1962 (Reservoirs in Merrimack River basin), and other reservoirs upstream. Diversion from Hopkinton Lake to Everett Lake on Piscataquog River during periods of high flow in March 1968, April 1969, March 1977, and March 1979. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--20 years (water years 1963-83), 701 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,620 ft^3/s Mar. 17, 1977, gage height, 10.04 ft; minimum daily, 15 ft^3/s July 22, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,760 ft^3/s Mar. 24, gage height, 8.09 ft; minimum daily discharge, 28 ft^3/s Aug. 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	241	196	422	480	470	340	1720	1890	2050	207	59	33
2	211	207	417	387	450	600	1010	2360	1700	185	58	30
3	154	226	287	357	859	1510	552	2400	1340	181	56	30
4	84	138	412	481	1600	2100	1370	2340	1310	222	45	30
5	91	188	427	465	1840	2330	2350	2630	1520	178	35	30
6	84	287	367	400	1800	1960	2270	2410	1330	94	28	30
7	118	367	337	350	1380	1500	2130	1800	1120	89	36	30
8	53	362	342	270	941	1300	1820	1460	1100	118	36	30
9	203	392	287	200	700	1200	1740	1360	903	167	35	30
10	174	448	300	148	600	1300	1070	1180	749	323	34	29
11	115	487	328	645	540	1500	1280	967	645	342	33	29
12	305	443	253	1160	480	2000	2170	954	521	150	33	46
13	296	454	70	1230	450	2490	2590	922	561	66	32	56
14	305	616	64	1100	440	2900	3130	805	568	66	29	29
15	323	481	337	900	430	2500	2600	768	580	54	29	29
16	291	257	367	750	420	2100	896	749	532	54	80	29
17	266	253	429	660	400	2000	1720	805	532	53	82	49
18	211	253	521	580	390	1950	2670	817	532	51	32	33
19	174	417	377	500	385	2210	2610	755	487	49	72	31
20	127	616	357	470	380	2750	2760	768	465	72	35	31
21	129	586	300	450	375	1720	3310	909	397	115	86	54
22	233	550	295	430	370	1110	3360	750	392	113	80	84
23	86	509	290	410	365	3170	3450	850	347	121	32	66
24	157	314	280	634	360	4600	2970	1000	287	72	32	31
25	185	333	330	903	350	4500	2860	1050	278	62	31	99
26	75	185	450	1140	350	4290	3180	1490	305	55	30	70
27	154	167	544	1050	350	2890	3410	1350	237	70	40	86
28	132	192	687	960	345	2130	3400	1360	229	53	30	121
29	226	188	781	865	---	3820	3270	1310	207	52	30	82
30	127	305	724	586	---	2970	2750	1250	218	50	30	96
31	257	---	568	500	---	2370	---	1860	---	58	32	---
TOTAL	5587	10417	11950	19461	17820	70110	70418	41319	21442	3542	1332	1453
MEAN	180	347	385	628	636	2262	2347	1333	715	114	43.0	48.4
MAX	323	616	781	1230	1840	4600	3450	2630	2050	342	86	121
MIN	53	138	64	148	345	340	552	749	207	49	28	29

CAL YR 1982 TOTAL 272440 MEAN 746 MAX 4370 MIN 48
WTR YR 1983 TOTAL 274851 MEAN 753 MAX 4600 MIN 28

01085800 WEST BRANCH WARNER RIVER NEAR BRADFORD, NH

LOCATION.--Lat 43°15'33", long 72°01'35", Merrimack County, Hydrologic Unit 01070003, on left bank 75 ft downstream from small right-bank tributary, 200 ft upstream from highway bridge, and 3.5 mi west of Bradford.

DRAINAGE AREA.--5.75 mi².

PERIOD OF RECORD.--Discharge: May 1962 to current year.
Water-quality records: Water year 1976.

GAGE.--Water-stage recorder. Altitude of gage is 950 ft from topographic map.

REMARKS.--Records fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--21 years, 11.5 ft³/s, 27.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 603 ft³/s Apr. 1, 1976, gage height, 8.49 ft, from rating curve extended above 210 ft³/s; minimum, about 0.06 ft³/s about Sept. 20, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 110 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 11	0830	199	6.69	Apr. 11	0245	*350	7.63
Feb. 3	1345	123	6.03	Apr. 24	1930	254	7.09
Mar. 2	1900	208	6.76	May 2	0630	172	6.46
Mar. 19	2015	333	7.54				

Minimum discharge, 0.19 ft³/s Sept. 14.

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	1.9	7.2	5.1	3.5	4.5	14	25	24	1.1	.32	1.2
2	1.0	2.1	5.4	4.4	3.5	85	17	97	17	.99	.37	.78
3	.94	2.0	4.5	3.8	71	63	21	72	13	.94	.34	.59
4	.88	2.0	4.2	2.7	50	24	25	35	30	.78	.32	.47
5	.88	13	3.8	2.5	24	17	31	25	24	.73	.32	.40
6	.88	7.6	3.8	3.0	19	15	36	20	16	1.1	.34	.40
7	.88	4.5	3.6	3.0	11	20	35	18	13	.88	.47	.34
8	6.7	3.5	3.1	3.0	9.5	16	67	16	9.9	.63	.37	.27
9	7.4	3.1	3.0	2.5	7.5	14	60	22	8.1	.59	.37	.27
10	5.4	2.8	2.6	2.2	6.5	18	60	18	6.8	.55	.34	.32
11	3.2	2.7	2.7	96	6.0	22	171	16	6.0	.55	.55	.29
12	2.5	2.6	2.7	29	5.5	54	62	16	4.8	.55	2.2	.25
13	2.2	22	2.0	15	5.2	29	39	14	3.9	.55	1.1	.25
14	2.7	13	1.7	9.5	5.0	21	33	13	3.1	.47	.68	.21
15	2.8	8.7	2.0	7.0	4.8	24	28	13	2.7	.43	.51	.31
16	2.8	6.3	12	6.5	4.6	42	30	14	2.4	.40	.40	.27
17	2.5	5.1	16	5.5	4.4	29	68	12	2.3	.32	.34	.29
18	2.1	4.8	8.0	5.0	4.3	24	39	10	2.1	.32	.34	.40
19	1.9	4.5	5.1	4.5	4.2	207	30	9.5	1.8	.32	.34	.43
20	1.9	4.0	4.5	4.0	4.1	134	51	13	1.6	.29	.32	.43
21	2.0	3.6	4.2	4.0	4.0	76	34	13	1.4	.32	.37	.43
22	2.0	3.6	3.3	3.9	4.4	66	27	9.9	1.2	.51	.43	1.2
23	1.9	5.3	3.1	6.0	4.4	32	27	20	1.1	.40	.47	1.1
24	1.8	5.4	4.0	22	4.4	24	87	32	.99	.43	.47	.99
25	1.7	4.4	7.6	18	4.2	22	114	19	1.9	.59	.40	.83
26	1.7	4.0	22	10	4.0	18	53	15	1.7	.47	.40	.83
27	1.7	4.0	12	7.0	4.0	14	31	46	2.3	.40	.40	.83
28	1.9	3.5	10	5.5	3.9	15	25	30	1.7	.37	.73	.94
29	1.8	6.5	9.7	4.5	---	17	22	19	1.6	.34	.68	1.3
30	1.8	10	7.4	4.0	---	17	31	43	1.2	.34	1.6	1.5
31	1.6	---	5.6	4.0	---	13	---	58	---	.32	2.4	---
TOTAL	70.66	166.5	186.8	303.1	286.9	1176.5	1368	783.4	207.59	16.98	18.69	18.12
MEAN	2.28	5.55	6.03	9.78	10.2	38.0	45.6	25.3	6.92	.55	.60	.60
MAX	7.4	22	22	96	71	207	171	97	30	1.1	2.4	1.5
MIN	.88	1.9	1.7	2.2	3.5	4.5	14	9.5	.99	.29	.32	.21
CFSM	.40	.97	1.05	1.70	1.77	6.61	7.93	4.40	1.20	.10	.10	.10
IN.	.46	1.08	1.21	1.96	1.86	7.61	8.85	5.07	1.34	.11	.12	.12

CAL YR 1982 TOTAL 4373.85 MEAN 12.0 MAX 206 MIN .40 CFSM 2.09 IN 28.29
WTR YR 1983 TOTAL 4603.24 MEAN 12.6 MAX 207 MIN .21 CFSM 2.19 IN 29.78

01087000 BLACKWATER RIVER NEAR WEBSTER, NH

LOCATION.--Lat 43°17'45", long 71°41'46", Merrimack County, Hydrologic Unit 01070003, on left bank 0.2 mi west of Dingit Corner, 2.4 mi downstream from Blackwater Dam, 2.5 mi southeast of Webster, and 6.5 mi upstream from mouth.

DRAINAGE AREA.--129 mi^2.

PERIOD OF RECORD.--Discharge: May 1918 to September 1920, February 1927 to current year. Published as "near Contoocook" 1918-20, 1927-35. Records published for both sites October 1934 to September 1935. Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 696: Drainage area. WSP 821: 1936(M). WSP 851: 1936. WSP 867: 1936 (flood-report data). WSP 1231: 1919-20, 1927, 1928(M), 1929-32, 1933-34(M), 1936 (calendar-year summaries).

GAGE.--Water-stage recorder. Altitude of gage is 430 ft, from topographic map. Prior to Oct. 1, 1935, chain gage at site 5 mi downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. High flow regulated by Blackwater Reservoir since 1941 (Reservoirs in Merrimack River basin). Some regulation at low flow prior to 1933 by mill above station. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--58 years, 213 ft^3/s, 22.42 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s Mar. 19, 1936, gage height, 11.78 ft, from floodmarks, from rating curve extended above 6,700 ft^3/s on basis of slope-area and critical-depth measurements of peak flow; minimum, 3 ft^3/s Sept. 17, 1941; minimum daily, 7.6 ft^3/s Sept. 29, 1964. Maximum discharge since construction of Blackwater Reservoir in 1941, 2,390 ft^3/s Apr. 16, 1951, Apr. 10, 1952, gage height, 7.18 ft.
Maximum stage since at least 1733, that of Mar. 19, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,680 ft^3/s Mar. 24; gage height, 6.42 ft; minimum, 16 ft^3/s Aug. 27, 28.

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	47	43	85	112	115	121	383	647	670	53	19	35
2	41	42	90	99	110	197	179	740	639	50	20	71
3	36	42	90	89	217	520	41	959	483	47	20	72
4	33	42	86	50	552	777	433	1240	410	45	20	66
5	30	58	81	81	744	745	863	1090	483	43	22	61
6	29	99	77	70	640	518	766	718	543	49	23	57
7	27	121	73	64	383	407	602	555	454	56	22	54
8	37	109	69	56	276	382	552	420	353	54	23	52
9	65	91	66	54	234	347	551	381	284	49	25	48
10	91	79	53	50	196	350	320	442	237	44	26	45
11	89	70	61	176	184	476	338	462	206	41	25	44
12	82	65	54	402	173	708	660	423	183	38	29	43
13	71	87	44	535	163	905	754	412	165	36	32	43
14	66	127	42	347	157	1060	807	378	161	33	36	42
15	63	146	40	217	145	849	659	337	212	31	37	38
16	60	140	51	174	140	590	383	331	175	29	34	30
17	58	118	79	145	140	515	752	329	149	28	30	24
18	64	102	91	134	135	500	1100	295	133	26	26	21
19	65	92	103	120	135	684	924	259	136	25	24	20
20	63	85	94	110	130	895	856	243	122	24	22	18
21	62	80	83	105	130	572	981	260	104	23	19	17
22	59	78	71	100	125	401	962	279	92	23	18	28
23	54	77	70	100	125	1230	931	284	82	22	18	31
24	51	78	68	164	120	1680	739	363	74	21	18	31
25	50	77	66	239	120	1670	635	461	68	22	17	30
26	48	74	80	266	120	1560	774	467	65	21	17	27
27	48	73	103	248	120	601	1050	397	64	21	16	24
28	47	70	126	197	120	443	1110	399	65	20	16	22
29	46	70	135	160	---	436	1270	444	61	20	17	20
30	45	78	134	139	---	438	1300	442	57	20	18	19
31	44	---	114	126	---	411	---	570	---	19	22	---
TOTAL	1671	2513	2479	4929	5949	20988	21675	15027	6930	1033	711	1133
MEAN	53.9	83.8	80.0	159	212	677	723	485	231	33.3	22.9	37.8
MAX	91	146	135	535	744	1680	1300	1240	670	56	37	72
MIN	27	42	40	50	110	121	41	243	57	19	16	17
MEAN†	53.9	83.8	80.0	159	212	680	756	456	225	33.2	22.9	37.8
CFSM†	.42	.65	.62	1.23	1.64	5.27	5.86	3.53	1.74	.26	.18	.29
IN†	.48	.73	.72	1.42	1.71	6.08	6.54	4.07	1.95	.30	.20	.33

CAL YR 1982 TOTAL 74280 MEAN 204 MAX 1830 MIN 19 MEAN† 203 CFSM† 1.57 IN† 21.42
WTR YR 1983 TOTAL 85038 MEAN 233 MAX 1680 MIN 16 MEAN† 233 CFSM† 1.81 IN† 24.52

† Adjusted for change in contents for Blackwater Reservoir.

01089000 SOUCOOK RIVER NEAR CONCORD, NH

LOCATION.--Lat 43°14'22", long 71°27'44", Merrimack County, Hydrologic Unit 01070002, on left bank 500 ft upstream from U.S. Highway 4, 0.9 mi upstream from Cemetery Brook, and 4.4 mi northeast of State Capitol at Concord.

DRAINAGE AREA.--76.8 mi^2.

PERIOD OF RECORD.--Discharge: October 1951 to current year.
Water-quality records: Water years 1967-74.

REVISED RECORDS.--WSP 1331: 1952(M).

GAGE.--Water-stage recorder. Altitude of gage is 290 ft, from topographic map.

REMARKS.--Records good except those for winter period which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--32 years, 112 ft^3/s, 19.80 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft^3/s Mar. 14, 1977, gage height, 14.50 ft; minimum, 1.5 ft^3/s Aug. 7, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 3	1300	730	9.52	Apr. 11	1830	821	9.59
Mar. 12	2400	1210	10.43	Apr. 25	1630	1030	10.07
Mar. 20	1100	*1330	10.65	May 3	0030	1000	10.01

Minimum not determined, minimum daily 4.4 ft^3/s Sept. 13, 14.

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	20	22	70	64	110	85	229	292	438	44	12	7.0
2	19	23	66	62	130	186	209	667	297	42	19	6.8
3	17	25	60	54	120	652	207	876	214	42	22	6.5
4	16	35	58	35	380	461	444	624	218	33	15	6.1
5	16	50	55	40	430	327	412	525	326	33	12	5.9
6	15	60	53	45	330	253	326	407	256	233	9.8	5.7
7	16	35	50	52	200	236	270	321	207	129	8.2	5.3
8	36	28	47	51	140	213	252	265	168	90	7.7	5.1
9	51	26	44	44	125	201	241	248	141	69	7.5	4.9
10	42	27	41	42	120	260	209	254	120	56	6.5	4.7
11	36	26	39	341	115	470	635	222	100	43	6.3	4.7
12	32	50	37	380	110	765	638	201	95	34	8.7	4.5
13	31	140	34	125	105	1030	438	182	88	32	10	4.4
14	40	130	32	90	105	642	333	170	82	26	9.5	4.4
15	61	120	33	84	100	492	272	164	79	22	8.7	4.5
16	78	110	45	80	104	444	239	203	73	19	7.4	4.7
17	64	84	86	76	100	404	338	199	67	19	7.0	5.7
18	54	75	69	74	105	353	396	173	61	20	6.8	5.9
19	47	71	63	70	113	481	316	151	72	20	6.5	5.3
20	42	64	59	66	102	1180	299	142	98	13	6.3	5.1
21	38	60	57	64	99	797	311	153	87	12	6.1	5.1
22	36	58	52	62	98	628	270	143	81	13	6.5	8.4
23	35	58	49	100	95	504	229	162	65	13	7.0	9.7
24	39	55	50	151	90	385	233	237	59	23	6.7	8.9
25	38	51	53	538	86	313	889	210	59	9.7	6.5	7.9
26	35	48	71	373	84	265	723	167	56	10	6.5	7.4
27	33	48	86	213	83	237	504	148	63	12	7.0	7.2
28	31	42	80	180	83	254	387	168	55	12	7.4	7.0
29	29	57	91	140	---	309	304	160	51	11	7.4	6.3
30	27	71	84	120	---	299	277	182	47	11	7.4	6.1
31	24	---	70	100	---	252	---	537	---	11	7.2	---
TOTAL	1098	1749	1784	3916	3862	13378	10830	8553	3823	1156.7	272.6	181.2
MEAN	35.4	58.3	57.5	126	138	432	361	276	127	37.3	8.79	6.04
MAX	78	140	91	538	430	1180	889	876	438	233	22	9.7
MIN	15	22	32	35	83	85	207	142	47	9.7	6.1	4.4
CFSM	.46	.76	.75	1.64	1.80	5.63	4.70	3.59	1.65	.49	.11	.08
IN.	.53	.85	.86	1.90	1.87	6.48	5.25	4.14	1.85	.56	.13	.09

CAL YR 1982 TOTAL 50582.0 MEAN 139 MAX 926 MIN 14 CFSM 1.81 IN 24.50
WTR YR 1983 TOTAL 50603.5 MEAN 139 MAX 1180 MIN 4.4 CFSM 1.81 IN 24.51

01090800 PISCATAQUOG RIVER BELOW EVERETT DAM, NEAR EAST WEARE, NH

LOCATION.--Lat 43°05'29", long 71°39'36", Hillsborough County, Hydrologic Unit 01070002, on right bank 500 ft downstream from Everett Dam and 1.4 mi southeast of East Weare.

DRAINAGE AREA.--63.1 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 320 ft, from topographic map.

REMARKS.--Records good. Flow regulated by Everett Lake (Reservoirs in Merrimack River basin). Diversion from Hopkinton Lake on Contoocook River to Everett Lake during periods of high flow in the spring of 1968, 1969, 1977, and 1979. Occasional regulation by small reservoirs upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--20 years, 96.3 ft^3/s, 20.72 in/yr, adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,530 ft^3/s May 1, 1969, gage height, 8.73 ft; no flow for part of Aug. 27, Nov. 18, 1964, Oct. 22, 1968, Oct. 4, 1978, caused by unusual regulation; minimum daily discharge, 0.39 ft^3/s Sept. 6, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,520 ft^3/s Mar. 25, gage height, 8.73 ft; minimum daily, 3.1 ft^3/s Sept. 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	17	38	47	45	85	65	232	244	282	29	8.5	8.9
2	15	35	66	42	62	80	96	469	288	33	8.4	8.8
3	13	33	59	39	95	169	19	470	278	29	8.1	7.9
4	11	35	51	38	237	295	194	462	259	25	7.6	7.0
5	9.7	43	44	37	432	290	297	429	253	18	7.3	6.6
6	9.2	50	39	37	400	294	296	268	215	19	7.1	6.3
7	8.6	48	36	37	154	293	356	216	175	20	7.1	5.7
8	16	44	33	35	123	276	348	182	142	20	6.7	5.1
9	29	40	47	34	115	228	286	172	117	19	6.0	4.9
10	33	35	44	33	113	256	117	150	108	17	5.4	4.7
11	30	32	39	81	85	252	72	119	92	16	5.2	4.5
12	27	31	33	98	79	115	478	103	77	15	5.7	4.3
13	34	44	27	100	79	209	940	96	67	13	6.3	4.1
14	40	57	25	120	80	595	907	92	69	13	6.4	3.7
15	43	56	33	68	99	1100	250	89	66	12	6.2	3.5
16	60	53	39	68	105	1250	108	95	57	11	5.9	3.1
17	59	48	54	69	86	1120	205	101	51	10	5.6	3.2
18	76	44	49	84	83	511	271	94	46	10	5.4	3.4
19	92	41	45	90	81	15	268	91	43	7.6	5.2	3.8
20	79	40	43	89	77	161	320	100	39	6.4	5.0	4.1
21	56	39	39	88	75	187	352	108	34	7.6	4.3	4.0
22	46	43	36	88	74	251	344	102	31	18	4.1	7.8
23	42	63	33	88	74	976	324	110	28	18	4.3	9.5
24	38	58	34	142	74	1410	107	159	26	15	4.3	9.2
25	35	48	35	166	72	1430	72	172	24	16	4.3	8.2
26	33	41	44	164	69	1260	313	170	27	15	4.3	7.5
27	31	37	53	160	66	608	685	141	27	13	4.3	7.2
28	30	33	54	109	65	317	886	140	31	11	5.1	6.8
29	50	36	55	85	---	308	497	135	35	10	5.4	6.4
30	48	41	54	86	---	303	260	147	34	9.5	5.4	6.1
31	42	---	49	85	---	253	---	231	---	9.1	6.8	---
TOTAL	1152.5	1286	1339	2505	3239	14877	9900	5657	3021	485.2	181.7	176.3
MEAN	37.2	42.9	43.2	80.8	116	480	330	182	101	15.7	5.86	5.88
MAX	92	63	66	166	432	1430	940	470	288	33	8.5	9.5
MIN	8.6	31	25	33	62	15	19	89	24	6.4	4.1	3.1
MEAN†	37.6	42.9	43.4	82.1	114	480	332	185	95.0	15.0	5.86	5.65
CFSM†	.60	.68	.69	1.30	1.81	7.61	5.26	2.93	1.51	.24	.09	.09
IN†	.69	.76	.79	1.50	1.89	8.78	5.87	3.38	1.68	.27	.11	.10

CAL YR 1982 TOTAL 38845.7 MEAN 106 MAX 680 MIN 6.4 MEAN† 106.4 CFSM† 1.69 IN† 22.89
WTR YR 1983 TOTAL 43819.7 MEAN 120 MAX 1430 MIN 3.1 MEAN† 120.0 CFSM† 1.90 IN† 25.83

† Adjusted for change in contents in Everett Lake.

01092000 MERRIMACK RIVER NEAR GOFFS FALLS, BELOW MANCHESTER, NH

LOCATION.--Lat 42°56'54", long 71°27'52", Hillsborough County, Hydrologic Unit 01070002, on right bank 600 ft upstream from bridge on Interstate Highway 193, 0.8 mi downstream from Bowman Brook, 1.3 mi north of Goffs Falls, and 2.3 mi downstream from Piscataquog River.

DRAINAGE AREA.--3,092 mi^2.

PERIOD OF RECORD.--Discharge: October 1936 to current year. October 1936 monthly discharge only, published in WSP 1301.
Water-quality records: Water years 1952-53, 1957, 1971.

REVISED RECORDS.--WSP 1231: 1937. WSP 1271: 1937(M, m).

GAGE.--Water-stage recorder. Datum of gage is 109.27 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by powerplants, by Franklin Falls Reservoir since 1942, and by Squam, Newfound, Winnipesaukee, Winnisquam, and other lakes and reservoirs upstream (Reservoirs in Merrimack River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--47 years, 5,276 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 102,500 ft^3/s Sept. 23, 1938, gage height, 25.87 ft, from rating curve extended above 48,000 ft^3/s on basis of computations of flow over dam at gage heights 25.87 ft and 35.19 ft; minimum daily, 98 ft^3/s Oct. 11, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1722, 150,000 ft^3/s Mar. 20, 1936, gage height, 35.19 ft, from floodmarks, from rating curve extended above 48,000 ft^3/s by method explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 22,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 21	0915	*32900	11.29	May 3	2045	26100	9.87
Apr. 26	1445	23800	9.39				

Minimum discharge, 368 ft^3/s July 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	1850	1450	2600	2950	4040	3280	10500	19500	18000	1440	1540	1080
2	1200	2210	3310	2450	4430	4690	9250	20300	16900	1480	1090	987
3	1190	1390	2870	2380	5900	12000	7990	25200	13900	1080	967	1100
4	1030	1710	2490	2100	12300	14700	9330	24900	11700	1450	859	1130
5	1300	1200	2550	1960	16000	13200	12200	25100	12500	2320	910	1130
6	1060	3160	2780	2000	13300	11400	12400	23000	12800	1760	1370	982
7	1090	4110	2530	2100	10500	10200	11900	18100	11400	1560	1160	763
8	1340	2750	2460	2140	7760	9180	11700	14200	10100	2030	1090	833
9	1710	2260	2450	2050	7380	8690	11600	12800	8850	2350	1090	820
10	2130	1830	2460	2000	6290	9860	12500	13400	7870	1470	1100	1070
11	2140	2130	1940	4500	5600	13700	15600	13200	7040	1780	1150	1150
12	1920	2860	1420	10000	5400	18800	19100	11700	5430	1640	1540	970
13	2170	3340	1720	12500	5100	24500	19200	10300	4380	1180	1590	894
14	2380	4200	1780	8540	5180	22300	19200	9190	4700	1120	1500	903
15	2230	6000	1290	6160	4370	19100	18000	8220	3580	1410	1340	881
16	1960	4370	1820	4260	4290	17700	14200	8110	3580	1120	1660	844
17	2000	3390	3640	4420	4440	17500	13100	8310	2970	1060	1330	905
18	1470	2700	4770	4320	3610	16700	16400	7820	3050	1110	1120	806
19	2340	2770	3210	3500	4280	18400	18100	6600	3170	1480	1110	780
20	2610	3040	2510	3300	4050	29000	16600	5490	3320	1200	1100	759
21	2020	2880	2570	2890	3900	32100	17100	6190	2920	1230	944	763
22	1740	2550	2780	3430	3750	26400	17200	7590	2800	986	1060	1010
23	1160	2790	2350	3640	3580	23800	16200	6980	2380	876	1000	1220
24	1100	3180	2420	4850	3820	23100	15000	8070	2140	1000	924	1440
25	1100	2950	2970	6490	3580	21500	20100	10100	1920	1290	923	1020
26	1220	3010	2190	7620	3430	19300	23400	9500	1890	1100	924	836
27	1550	2720	3260	7440	3270	17200	23000	8660	2090	1350	897	829
28	1610	2350	3570	6260	3440	13400	22600	8930	1580	1100	823	896
29	1440	2280	4270	5360	---	14200	22300	10300	1820	1050	876	877
30	1460	2690	3430	4570	---	14400	21000	10500	1530	1080	908	844
31	1600	---	3290	4330	---	12400	---	14500	---	1040	1640	---
TOTAL	51120	84270	83700	140510	162990	512700	476770	386760	186310	42142	35535	28522
MEAN	1649	2809	2700	4533	5821	16540	15890	12480	6210	1359	1146	951
MAX	2610	6000	4770	12500	16000	32100	23400	25200	18000	2350	1660	1440
MIN	1030	1200	1290	1960	3270	3280	7990	5490	1530	876	823	759
CFSM	.53	.91	.87	1.47	1.88	5.35	5.14	4.04	2.01	.44	.37	.31
IN.	.62	1.01	1.01	1.69	1.96	6.17	5.74	4.65	2.24	.51	.43	.34

CAL YR 1982 TOTAL 1930775 MEAN 5290 MAX 29000 MIN 822 CFSM 1.71 IN 23.23
WTR YR 1983 TOTAL 2191329 MEAN 6004 MAX 32100 MIN 759 CFSM 1.94 IN 26.36

01093800 STONY BROOK TRIBUTARY NEAR TEMPLE, NH

LOCATION.--Lat 42°51'36", long 71°50'00", Hillsborough County, Hydrologic Unit 01070002, on left bank 150 ft downstream from highway bridge, 2.9 mi north of Temple, and 5.5 mi upstream from mouth.

DRAINAGE AREA.--3.60 mi^2.

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

GAGE.--Water-stage recorder. Altitude of gage is 920 ft, from topographic map.

REMARKS.--Records fair except those for periods of ice and periods of no gage-height record, Jan. 13 to Feb. 13, Mar. 15-22, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--20 years, 7.14 ft^3/s, 26.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 336 ft^3/s Mar. 13, 1977, gage height, 7.13 ft, from rating curve extended above 90 ft^3/s; maximum gage height, 7.81 ft Feb. 3, 1970, Dec. 21, 1973, backwater from ice; no flow for part of Sept. 26, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 110 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 11	0745	230	6.47	Apr. 10	2330	194	6.22
Mar. 20	--	*250	--	Apr. 24	1815	111	5.61

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	1.7	2.2	4.7	4.7	5.6	3.4	11	14	25	1.1	.37	1.0
2	1.5	2.2	4.3	4.5	5.4	51	12	27	19	1.2	.40	.71
3	1.4	2.1	4.0	4.3	60	34	22	20	15	1.0	.35	.54
4	1.4	2.0	4.0	6.7	75	17	29	16	29	.85	.35	.47
5	1.3	5.0	3.8	6.0	40	12	26	13	24	1.6	.42	.42
6	1.3	4.0	3.8	4.7	20	11	25	11	17	2.5	.58	.40
7	1.3	3.2	3.5	4.2	12	21	22	9.7	22	1.3	.67	.37
8	5.6	2.8	3.4	4.0	9.5	16	34	8.0	15	.95	.42	.32
9	11	2.7	3.1	4.8	8.0	15	31	12	12	.90	.35	.32
10	6.2	2.6	2.3	4.7	6.5	20	38	9.7	11	.80	.28	.32
11	4.0	2.6	3.4	100	5.8	19	80	9.3	9.7	.75	.40	.30
12	3.4	2.6	3.0	50	4.8	61	36	11	8.3	.80	.80	.27
13	3.0	17	2.8	25	4.4	33	27	11	7.3	.75	.71	.24
14	3.9	9.1	3.1	15	4.0	26	20	8.0	7.0	.62	.47	.22
15	3.5	6.9	2.9	12	3.8	19	18	9.7	6.7	.58	.40	.19
16	3.0	5.6	7.4	10	3.6	32	19	12	6.0	.52	.32	.19
17	2.7	5.2	8.1	8.5	3.4	24	38	17	7.0	.47	.28	.24
18	2.6	4.8	7.4	7.5	3.3	21	24	11	3.2	.47	.32	.37
19	2.5	4.5	4.3	7.0	3.1	160	25	8.3	2.8	.44	.35	.24
20	2.4	4.3	3.7	6.5	3.0	80	36	14	2.5	.40	.25	.22
21	2.3	4.0	3.4	6.2	2.9	60	27	12	2.2	.54	.22	.21
22	2.2	3.9	3.3	6.0	2.8	45	21	8.6	1.5	.90	.27	1.4
23	2.2	3.8	3.5	9.0	2.7	32	18	19	1.4	.54	.37	.40
24	2.1	3.6	4.3	45	2.7	24	50	28	1.2	.62	.28	.28
25	2.1	3.4	9.7	22	2.7	20	59	16	1.4	.75	.27	.27
26	2.5	3.5	11	12	2.6	18	33	12	1.3	.52	.24	.25
27	2.3	3.4	7.6	9.0	3.5	12	25	15	1.3	.44	.23	.24
28	2.2	3.2	7.2	8.2	2.6	18	18	15	2.8	.40	.21	.23
29	2.1	6.9	6.7	7.0	---	22	16	11	2.2	.42	.28	.23
30	2.0	6.2	5.4	6.2	---	19	16	28	1.4	.44	.35	.23
31	1.9	---	4.8	5.8	---	12	---	45	---	.42	3.0	---
TOTAL	87.6	133.3	149.9	426.5	303.7	957.4	856	461.3	266.2	23.99	14.21	11.09
MEAN	2.83	4.44	4.84	13.8	10.8	30.9	28.5	14.9	8.87	.77	.46	.37
MAX	11	17	11	100	75	160	80	45	29	2.5	3.0	1.4
MIN	1.3	2.0	2.3	4.0	2.6	3.4	11	8.0	1.2	.40	.21	.19
CFSM	.79	1.23	1.34	3.83	3.00	8.58	7.92	4.14	2.46	.21	.13	.10
IN.	.90	1.38	1.55	4.41	3.14	9.89	8.84	4.77	2.75	.25	.15	.11

CAL YR 1982 TOTAL 3168.57 MEAN 8.68 MAX 70 MIN .73 CFSM 2.41 IN 32.73
WTR YR 1983 TOTAL 3691.19 MEAN 10.1 MAX 160 MIN .19 CFSM 2.81 IN 38.13

RESERVOIRS IN MERRIMACK RIVER BASIN

01077500 NEWFOUND LAKE on Newfound River, 1.7 mi north of Bristol, NH, used for recreation and for storage of water for power, has usable capacity of 1,690,000,000 ft^3. Records furnished by New Hampshire Water Resources Board.

01078500 FRANKLIN FALLS RESERVOIR on Pemigewasset River, 2 mi north of Franklin, NH, completed in 1942, used for flood control, has usable capacity of 6,700,000,000 ft^3. Records furnished by Corps of Engineers.

01080000 LAKE WINNIPESAUKEE on Winnipesaukee River (see station 01080000).

01082500 EDWARD MACDOWELL RESERVOIR on Nubanusit Brook, at West Peterborough, NH, 2 mi northwest of Peterborough, completed in 1950, used for flood control, has usable capacity of 558,000,000 ft^3. Records furnished by Corps of Engineers.

01085400 HOPKINTON LAKE on Contoocook River, at West Hopkinton, NH, completed in 1962, used for flood control and recreation, has usable capacity of 3,084,000,000 ft^3. Records furnished by Corps of Engineers.

01086500 BLACKWATER RESERVOIR on Blackwater River, at Swett's Mills, 1 mi south of Webster, NH, completed in 1941, used for flood control, has usable capacity of 2,004,000,000 ft^3. Records furnished by Corps of Engineers.

01090700 EVERETT LAKE on Piscataquog River, 1.3 mi southeast of East Weare, NH, completed in 1962, used for flood control and recreation, has usable capacity of 3,768,000,000 ft^3. Records furnished by Corps of Engineers. Hopkinton and Everett Lakes, connected by a canal, are operated as a unit above elevation 400.00 ft. Diversion from Hopkinton Lake to Everett Lake in March 1968, April 1969, and March 1977.

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	Newfound Lake	Franklin Falls Reservoir	Edward MacDowell Reservoir
Sept. 30, 1982	1244	61.0	4.3
Oct. 31	1000	108.9	4.9
Nov. 30	934	115.4	15.1
Dec. 31	1081	108.9	11.5
Jan. 31, 1983	1274	117.6	12.2
Feb. 28	1137	104.5	16.7
Mar. 31	1335	122.0	19.1
Apr. 30	1401	477.4	8.6
May 31	1516	326.7	8.6
June 30	1382	108.9	7.9
July 31	1250	38.3	7.9
Aug. 31	1206	82.8	7.3
Sept. 30	1117	108.9	4.3

	Hopkinton Lake	Blackwater Reservoir	Everett Lake
Sept. 30, 1982	11.9	.4	47.0
Oct. 31	16.5	.3	48.1
Nov. 30	22.3	.5	48.1
Dec. 31	27.2	.7	48.7
Jan. 31, 1983	36.8	1.5	52.1
Feb. 28	34.2	1.0	49.2
Mar. 31	36.8	8.1	50.4
Apr. 30	51.8	94	56.0
May 31	54.6	16.3	62.8
June 30	23.1	.5	48.1
July 31	12.6	.2	46.4
Aug. 31	11.9	.2	46.4
Sept. 30	5.18	.2	45.8

01127880 BIG BROOK NEAR PITTSBURG, NH

LOCATION.--Lat 45°08'06", long 71°12'23", Coos County, Hydrologic Unit 01080101, on left bank 10 ft downstream from culvert on U.S. Highway 3, 0.3 mi upstream from mouth, and 11 mi northeast of Pittsburg.

DRAINAGE AREA.--6.36 mi^2.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,680 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--19 years (water years 1965-82), 15.9 ft^3/s, 33.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441 ft^3/s May 3, 1967, gage height, 3.61 ft, from rating curve extended above 110 ft^3/s; maximum gage height, 5.02 ft Dec. 27, 1969, ice jam; minimum discharge, about 0.90 ft^3/s about Aug. 20, 21, 1975, July 25-28, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 187 ft^3/s May 4, gage height, 3.31 ft, no other peak above base of 187 cfs; minimum discharge, not determined, minimum daily, 0.92 ft^3/s July 18, 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	5.3	7.0	18	9.6	5.8	1.9	4.4	81	35	1.1	1.2	2.0
2	7.4	14	18	8.0	5.7	2.6	4.4	84	25	1.4	2.4	1.4
3	5.9	15	27	6.8	8.0	10	4.7	109	20	1.3	3.0	1.3
4	5.0	11	37	5.9	20	5.0	4.7	141	17	1.2	1.9	1.2
5	4.7	100	28	5.3	15	3.8	5.0	65	16	1.2	1.4	1.2
6	4.2	60	29	5.0	12	3.5	5.9	42	17	1.3	1.3	1.2
7	3.9	35	23	4.7	10	3.2	9.0	31	36	1.7	10	2.2
8	12	22	18	4.4	8.5	3.0	24	26	23	1.3	7.1	2.4
9	11	18	16	4.2	7.2	2.9	29	60	16	1.2	19	1.5
10	8.2	15	15	4.7	6.3	2.8	31	48	13	1.3	7.8	1.5
11	6.8	14	14	50	5.7	2.8	28	38	11	1.1	4.7	1.7
12	5.9	13	13	30	5.2	2.7	21	31	9.4	1.1	21	1.5
13	5.3	39	13	23	4.8	2.7	18	26	8.6	1.0	11	1.3
14	5.6	25	12	17	4.3	2.8	27	22	7.8	.93	6.5	1.2
15	5.6	17	40	14	4.0	2.8	29	24	6.2	.96	4.4	1.2
16	6.5	14	60	12	3.7	2.9	29	32	5.6	.94	3.2	1.2
17	7.1	12	100	10	3.5	2.9	29	22	5.0	.93	2.6	1.3
18	7.1	11	35	9.0	3.2	3.1	21	17	5.0	.92	2.4	1.9
19	6.5	10	12	8.5	3.0	5.3	17	14	4.2	.92	2.4	1.5
20	6.2	9.4	11	8.0	2.8	17	19	19	3.2	2.0	1.9	1.4
21	6.2	9.7	11	7.4	2.6	17	19	19	2.6	2.0	1.9	1.2
22	6.2	16	10	7.2	2.5	14	17	15	2.4	14	1.3	15
23	5.6	28	9.5	7.0	2.4	10	25	24	2.0	6.8	1.5	7.1
24	5.0	29	13	25	2.3	15	38	30	1.9	3.7	1.4	3.9
25	4.7	23	20	8.0	2.3	21	121	26	1.5	2.8	1.3	2.8
26	4.7	18	13	7.0	2.2	13	102	19	1.4	2.0	1.2	2.4
27	4.2	15	11	7.4	2.1	14	79	18	1.4	1.4	7.8	2.2
28	3.7	13	10	6.4	2.0	12	97	24	1.5	1.2	3.4	2.0
29	3.6	15	12	6.2	---	6.2	112	21	1.4	1.2	3.2	1.7
30	3.5	22	15	6.0	---	9.7	84	28	1.2	1.3	2.0	1.7
31	3.2	---	12	5.9	---	13	---	37	---	1.3	2.2	---
TOTAL	180.8	650.1	675.5	333.6	157.1	228.6	1054.1	1193	301.3	61.50	142.4	70.1
MEAN	5.83	21.7	21.8	10.8	5.61	7.37	35.1	38.5	10.0	1.98	4.59	2.34
MAX	12	100	100	50	20	21	121	141	36	14	21	15
MIN	3.2	7.0	9.5	4.2	2.0	1.9	4.4	14	1.2	.92	1.2	1.2
CFSM	.92	3.41	3.43	1.70	.88	1.16	5.52	6.05	1.57	.31	.72	.37
IN.	1.06	3.80	3.95	1.95	.92	1.34	6.16	6.98	1.76	.36	.83	.41

CAL YR 1982 TOTAL 6427.10 MEAN 17.6 MAX 243 MIN 1.0 CFSM 2.77 IN 37.59
WTR YR 1983 TOTAL 5048.10 MEAN 13.8 MAX 141 MIN 0.92 CFSM 2.17 IN 29.52

01128500 CONNECTICUT RIVER AT FIRST CONNECTICUT LAKE, NEAR PITTSBURG, NH

LOCATION.--Lat 45°05'14", long 71°17'34", Coos County, Hydrologic Unit 01080101, on right bank 0.2 mi downstream from dam at First Connecticut Lake, 6 mi northeast of Pittsburg, and at mile 392.0.

DRAINAGE AREA.--83.0 mi^2.

PERIOD OF RECORD.--April 1917 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1001: 1931-39. WSP 1231: 1921-23(M), 1925-26.

GAGE.--Water-stage recorder. Altitude of gage is 1,560 ft, from topographic map. Prior to Jan. 1, 1918, discharge computed from flow through gates at dam 0.2 mi upstream. Jan. 1 to July 28, 1918, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow completely regulated by First Connecticut and Second Connecticut Lakes (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--65 years, 197 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft^3/s June 16, 1943, gage height, 6.25 ft, from rating curve extended above 1,900 ft^3/s on basis of computation of flow over dam at gage height 6.12 ft; maximum gage height, 6.35 ft May 5, 1925, backwater from logging operations; minimum daily discharge, 1.7 ft^3/s Apr. 22, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,650 ft^3/s Dec. 8, gage height, 4.25 ft; minimum daily, 1.7 ft^3/s Apr. 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	252	98	819	248	183	200	57	1.9	218	85	146	204
2	252	98	1070	248	183	197	57	2.0	186	85	146	204
3	252	98	662	193	180	200	57	2.3	183	85	146	204
4	252	98	1280	149	241	200	27	3.2	180	83	146	204
5	252	100	1340	149	308	200	9.4	18	183	85	146	204
6	252	100	1410	146	308	197	42	28	180	85	146	204
7	248	103	1480	146	304	197	103	48	238	85	146	204
8	248	103	1530	146	308	197	74	83	263	85	146	204
9	222	103	321	146	304	122	190	287	245	83	146	200
10	200	135	135	146	304	94	190	514	218	83	146	200
11	200	155	135	66	304	94	190	514	173	180	149	204
12	200	155	138	45	304	96	190	461	170	248	149	200
13	140	155	138	100	300	96	190	407	170	245	149	204
14	103	155	135	100	300	96	96	367	176	245	149	204
15	103	155	135	100	300	183	42	339	167	211	85	204
16	103	215	78	100	252	252	2.2	348	161	170	143	204
17	105	256	59	100	149	207	2.2	330	158	412	143	204
18	105	252	85	100	149	197	1.9	275	155	407	143	204
19	105	252	85	100	149	108	1.8	234	146	260	143	204
20	105	252	183	100	149	108	1.8	234	138	256	146	204
21	105	252	252	120	149	108	1.8	234	130	248	146	200
22	105	252	252	140	149	108	1.7	230	117	248	98	256
23	105	252	252	143	180	108	1.8	234	105	248	143	295
24	105	252	252	143	200	108	1.8	263	96	248	143	300
25	105	252	252	143	200	108	2.2	317	91	197	146	295
26	105	252	252	170	200	108	1.9	382	83	149	146	367
27	105	252	252	186	200	108	1.8	325	81	105	146	186
28	105	252	252	186	200	108	1.8	271	83	64	146	193
29	100	334	252	186	---	110	1.9	271	85	122	164	211
30	98	472	252	183	---	87	1.9	283	85	146	200	271
31	98	---	252	183	---	57	---	295	---	146	204	---
TOTAL	4835	5860	13990	4411	6457	4359	1542.9	7601.4	4664	5399	4541	6642
MEAN	156	195	451	142	231	141	51.4	245	155	174	146	221
MAX	252	472	1530	248	308	252	190	514	263	412	204	367
MIN	98	98	59	45	149	57	1.7	1.9	81	64	85	186

CAL YR 1982 TOTAL 76840.7 MEAN 211 MAX 1530 MIN 8.0
WTR YR 1983 TOTAL 70302.3 MEAN 193 MAX 1530 MIN 1.7

01129200 CONNECTICUT RIVER BELOW INDIAN STREAM, NEAR PITTSBURG, NH

LOCATION.--Lat 45°02'25", long 71°26'37", Coos County, Hydrologic Unit 01080101, on right bank 1,200 ft downstream from Indian Stream, 2.5 mi west of Pittsburg, and at mile 376.5.

DRAINAGE AREA.--254 mi^2.

PERIOD OF RECORD.--Discharge: October 1956 to current year.

REVISED RECORDS.--WDR MA-NH-RI-VT-73-1: 1958, 1960(M), 1969(M).

GAGE.--Water-stage recorder. Altitude of gage is 1,150 ft, from topographic map.

REMARKS.--Records good. Flow regulated by First Connecticut and Second Connecticut Lakes and Lake Francis 3.7 mi upstream (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--27 years, 571 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,080 ft^3/s Nov. 29, 1959, gage height, 7.07 ft, from rating curve extended above 2,600 ft^3/s; minimum daily, 30 ft^3/s Aug. 6, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,770 ft^3/s Nov. 5, gage height, 5.85 ft; minimum daily, 114 ft^3/s Aug. 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	446	234	768	932	851	547	205	831	1020	307	311	248
2	464	280	798	916	845	556	213	877	957	306	329	227
3	471	320	867	796	803	560	226	928	1140	466	335	219
4	454	248	895	685	841	562	198	1540	1100	698	323	216
5	446	1410	839	684	959	568	174	945	1080	485	314	322
6	440	1370	818	698	913	559	207	616	977	401	260	400
7	363	471	811	704	889	555	237	807	1060	364	114	401
8	257	322	763	703	870	553	533	810	780	338	134	400
9	298	254	726	691	857	489	653	1080	677	555	223	400
10	273	334	674	683	847	358	633	1060	689	673	166	400
11	257	453	704	563	772	365	464	1140	659	650	131	400
12	250	449	676	705	631	380	405	1260	629	644	184	399
13	244	655	656	687	624	375	344	1240	610	641	265	396
14	213	672	652	636	620	370	460	1130	591	514	372	519
15	239	540	661	678	641	366	612	960	578	306	399	603
16	244	551	548	672	571	371	613	1070	568	306	464	598
17	255	565	829	652	342	382	612	871	570	534	436	598
18	223	545	678	638	340	322	443	720	574	679	431	596
19	202	530	679	629	340	191	347	685	570	238	423	596
20	210	521	817	627	340	429	390	679	586	379	417	600
21	249	517	961	662	340	577	440	693	646	436	413	468
22	239	578	926	721	340	456	374	659	637	460	410	414
23	243	675	802	718	414	344	390	685	630	475	410	422
24	240	698	586	737	461	276	560	798	507	446	407	368
25	235	667	598	763	506	312	1140	842	428	388	404	351
26	234	604	793	857	558	299	1440	908	424	321	401	381
27	232	569	865	905	553	245	989	829	422	317	426	415
28	230	529	745	888	549	162	866	747	423	315	423	413
29	227	605	898	877	---	154	976	741	388	315	412	410
30	227	806	995	866	---	188	876	721	311	318	380	410
31	227	---	935	859	---	196	---	918	---	313	363	---
TOTAL	8832	16972	23963	22832	17617	12067	16020	27790	20231	13588	10480	12590
MEAN	285	566	773	737	629	389	534	896	674	438	338	420
MAX	471	1410	995	932	959	577	1440	1540	1140	698	464	603
MIN	202	234	548	563	340	154	174	616	311	238	114	216

CAL YR 1982 TOTAL 210710 MEAN 577 MAX 2780 MIN 133
WTR YR 1983 TOTAL 202982 MEAN 556 MAX 1540 MIN 114

01129300 HALLS STREAM NEAR EAST HEREFORD, QUEBEC
(International gaging station)

LOCATION.--Lat 45°02'41", long 71°29'54", Compton County, on right bank opposite Alain's farm, 2.5 mi downstream from East Hereford, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--85 mi^2.

PERIOD OF RECORD.--Discharge: October 1962 to current year in reports of Geological Survey. October 1948 to September 1962 available from Water Survey of Canada, Department of the Environment.

GAGE.--Water-stage recorder. Altitude of gage is 1,090 ft, from topographic map. Prior to Dec. 13, 1962, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are fair.

COOPERATION.--This station is maintained by Canada under agreement with the United States.

AVERAGE DISCHARGE.--35 years, 170 ft^3/s, 27.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft^3/s June 30, 1973, gage height, 13.07 ft; minimum daily, 4 ft^3/s Sept. 10, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1943 reached a discharge of 21,000 ft^3/s by slope-area method at site 0.5 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,550 ft^3/s May 4, gage height, unknown; minimum daily, 6.7 ft^3/s Aug. 1.

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	39	215	117	46	30	106	671	600	17	6.7	67
2	46	113	279	71	46	31	127	671	307	23	12	42
3	46	131	275	67	53	33	141	812	226	20	46	32
4	35	92	265	67	53	34	145	1620	191	18	23	26
5	29	2010	205	71	60	35	169	671	180	18	16	22
6	28	812	184	67	71	35	230	424	261	21	12	17
7	23	388	162	67	81	39	304	293	1020	29	22	26
8	71	251	131	67	81	42	847	247	388	24	33	42
9	95	191	106	67	71	42	742	989	240	18	152	26
10	67	152	81	71	64	42	636	706	177	23	60	20
11	49	127	95	459	60	46	459	530	138	16	35	22
12	46	124	99	424	53	46	353	388	113	16	74	21
13	42	353	85	169	49	49	353	286	95	14	74	18
14	42	244	74	127	46	49	565	240	78	12	39	15
15	42	169	67	99	42	53	706	237	67	12	27	14
16	46	138	353	81	42	53	706	353	60	11	19	12
17	67	120	565	74	39	53	600	230	60	11	17	13
18	71	102	205	67	39	67	388	177	60	11	49	17
19	60	92	152	60	35	311	300	145	53	8.8	39	18
20	49	88	117	53	35	883	388	145	42	12	24	17
21	49	85	109	53	34	636	388	141	34	14	18	15
22	49	141	95	49	33	459	332	120	33	23	15	191
23	42	240	88	49	32	290	424	177	30	21	16	106
24	39	247	81	49	31	201	565	424	28	15	14	60
25	35	226	99	46	31	169	1200	325	28	13	12	46
26	33	166	530	46	30	152	1060	208	23	11	11	35
27	32	134	275	46	30	131	847	194	22	8.5	53	30
28	30	113	187	46	30	117	742	314	22	7.8	42	26
29	30	127	230	46	---	127	706	244	21	7.4	30	23
30	30	282	159	46	---	106	636	258	18	7.8	49	20
31	28	---	117	46	---	99	---	565	---	7.4	148	---
TOTAL	1386	7497	5685	2867	1317	4460	15165	12805	4615	470.7	1187.7	1039
MEAN	44.7	250	183	92.5	47.0	144	506	413	154	15.2	38.3	34.6
MAX	95	2010	565	459	81	883	1200	1620	1020	29	152	191
MIN	23	39	67	46	30	30	106	120	18	7.4	6.7	12
CFSM	.53	2.94	2.15	1.09	.55	1.69	5.95	4.86	1.81	.18	.45	.41
IN.	.61	3.28	2.49	1.25	.58	1.95	6.64	5.60	2.02	.21	.52	.45

CAL YR 1982 TOTAL 62587.0 MEAN 171 MAX 2180 MIN 11 CFSM 2.01 IN 27.39
WTR YR 1983 TOTAL 58494.4 MEAN 160 MAX 2010 MIN 6.7 CFSM 1.88 IN 25.60

01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH

LOCATION.--Lat 44°44'56", long 71°37'50", Coos County, Hydrologic Unit 01080101, on left bank at North Stratford, 400 ft downstream from Nulhegan River, and at mile 344.5.

DRAINAGE AREA.--799 mi^2.

PERIOD OF RECORD.--Discharge: August 1930 to current year.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 781: 1934(M). WSP 891: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 880.17 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes and Lake Francis (Reservoirs in Connecticut River basin) 36 mi upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--53 years, 1,583 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,700 ft^3/s June 16, 1943, gage height, 14.67 ft from rating curve extended above 15,000 ft^3/s; maximum gage height, 20.60 ft Mar. 6, 1979, from floodmark in gage well (ice jam); minimum daily discharge, 108 ft^3/s Sept. 29, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,900 ft^3/s May 4, gage height, 9.42 ft; minimum daily discharge, 375 ft^3/s Oct. 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	711	464	1930	1650	1300	1050	841	5750	4320	552	525	774
2	703	869	2030	1560	1250	1150	887	5890	2920	558	585	558
3	730	1180	2220	1390	1500	1400	1020	7440	2580	608	782	468
4	681	891	2330	914	2100	1250	1030	11100	2350	836	656	424
5	646	6180	2110	1150	2600	1150	1040	8070	2340	1020	565	394
6	620	7940	2010	1400	2000	1120	1230	4360	2150	1250	525	539
7	605	3490	2030	1330	1700	1100	1400	3190	4480	1020	468	565
8	821	1980	1700	1280	1600	1080	2790	2760	3330	800	406	600
9	991	1500	1490	1120	1500	1070	3530	5520	2160	697	1600	585
10	779	1170	1050	1180	1400	1050	3690	5950	1800	949	1060	565
11	635	1200	940	3040	1250	1180	2810	4750	1590	930	648	585
12	581	1170	870	3550	1200	1400	2530	4320	1430	921	1270	616
13	542	1990	800	2160	1150	1230	2330	3600	1320	940	1210	579
14	517	2350	840	1440	1050	1120	3060	3120	1240	930	902	552
15	496	1690	1100	1570	1000	1150	4120	2760	1150	664	765	722
16	571	1430	2330	1450	920	1430	4200	3810	1090	539	748	748
17	602	1330	3630	1290	880	1600	3860	3060	1190	512	739	756
18	610	1230	1960	1180	820	1830	2870	2290	1430	827	722	782
19	544	1150	1510	1050	790	2390	2200	1960	1270	836	809	782
20	485	1090	1600	1000	760	4420	2290	1930	1110	545	714	756
21	487	1070	1760	1150	740	4280	2650	2000	1070	705	656	748
22	529	1380	1600	1200	730	3070	2250	1760	1030	1020	616	1320
23	493	1950	1670	1350	700	2130	2410	1750	988	1010	632	1240
24	472	2160	1330	1500	790	1460	3170	2290	940	846	608	846
25	452	2020	1240	1900	850	1160	6570	2790	774	883	585	697
26	442	1650	2300	1850	900	1050	7740	2290	748	681	572	624
27	433	1440	2400	1700	920	965	6420	2160	774	565	714	648
28	424	1150	1860	1550	970	946	5650	2440	782	525	809	640
29	418	1330	1930	1450	---	920	5980	2260	722	506	697	616
30	375	1900	1970	1400	---	800	5730	2400	572	539	714	600
31	408	---	1650	1350	---	789	---	3400	---	565	774	---
TOTAL	17803	56344	54190	47104	33370	46740	96298	117170	49650	23779	23076	20329
MEAN	574	1878	1748	1519	1192	1508	3210	3780	1655	767	744	678
MAX	991	7940	3630	3550	2600	4420	7740	11100	4480	1250	1600	1320
MIN	375	464	800	914	700	789	841	1750	572	506	406	394

CAL YR 1982 TOTAL 585656 MEAN 1605 MAX 14600 MIN 269
WTR YR 1983 TOTAL 585853 MEAN 1605 MAX 11100 MIN 375

01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH

LOCATION.--Lat 44°37'30", long 71°28'10", Coos County, Hydrologic Unit 01080101, on left bank 75 ft upstream from highway bridge, 0.2 mi downstream from Nash Stream, and 2.8 mi northeast of Groveton.

DRAINAGE AREA.--232 mi^2.

PERIOD OF RECORD.--Discharge: August 1940 to November 1980, October 1982 to September 1983. Water-quality records: Water year 1955.

GAGE.--Water-stage recorder. Altitude of gage is 920 ft, from topographic map.

REMARKS.--Records good except for winter period, which are poor. Prior to May 21, 1969, some regulation by pond 9 mi upstream on Nash Stream. Small diversion upstream for municpal supply of Berlin. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--41 years, 473 ft^3/s, 27.69 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,100 ft^3/s May 20, 1969, gage height, 12.01 ft in gage well, 12.85 ft, from floodmarks, from rating curve extended above 5,600 ft^3/s on basis of contracted-opening measurement of peak flow, caused by failure of dam on Nash Stream; minimum, 32 ft^3/s Sept. 14, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of about 10.6 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 26	0600	3420	5.75	May 4	0530	*4980	6.69
Apr. 29	2230	3560	5.84				

Minimum discharge, 47 ft^3/s 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	107	118	566	310	225	160	317	3210	958	72	106	185
2	100	227	559	280	215	200	333	3410	804	116	264	109
3	100	365	620	250	205	370	360	4280	694	153	259	84
4	93	232	627	230	400	410	350	4630	633	109	158	72
5	87	933	579	210	750	250	365	3280	663	112	103	66
6	83	1200	533	190	390	230	470	1890	594	369	86	62
7	81	633	533	205	330	225	607	1240	727	306	92	58
8	166	476	464	200	285	220	817	1020	643	201	106	54
9	302	391	391	185	260	215	1060	1770	531	158	540	53
10	211	323	253	175	230	210	1120	1920	473	123	427	51
11	166	287	391	170	500	250	916	1390	427	106	217	54
12	142	272	220	1100	380	280	891	1170	383	103	694	58
13	128	755	130	700	300	320	882	968	343	97	769	56
14	131	841	220	350	275	325	1100	889	300	92	473	53
15	145	533	380	280	255	340	1270	879	306	81	312	74
16	219	452	650	245	240	360	1170	1170	356	79	201	47
17	223	386	1100	225	230	400	1210	948	330	74	158	51
18	189	355	700	205	215	470	1160	804	390	72	137	60
19	160	317	500	185	210	613	924	716	362	72	116	68
20	142	292	390	175	190	1130	891	738	300	79	103	60
21	142	287	330	195	185	1200	959	786	222	81	89	54
22	145	407	300	220	180	1030	841	694	185	153	79	279
23	133	586	250	450	185	778	933	694	153	166	79	318
24	125	703	290	900	185	579	1180	749	130	123	74	158
25	120	755	320	450	180	501	2590	749	116	180	70	103
26	115	566	450	330	180	429	3300	663	112	133	66	84
27	112	464	630	295	200	396	2550	633	109	89	77	77
28	110	339	390	280	175	365	2310	813	112	74	84	70
29	107	447	415	270	---	350	2910	760	97	70	81	66
30	105	586	365	265	---	302	3330	769	81	77	92	64
31	103	---	335	245	---	307	---	1040	---	74	103	---
TOTAL	4292	14528	13881	9770	7555	13215	37116	44672	11534	3794	6215	2648
MEAN	138	484	448	315	270	426	1237	1441	384	122	200	88.3
MAX	302	1200	1100	1100	750	1200	3330	4630	958	369	769	318
MIN	81	118	130	170	175	160	317	633	81	70	66	47
CFSM	.60	2.09	1.93	1.36	1.16	1.84	5.33	6.21	1.66	.53	.86	.38
IN.	.69	2.33	2.23	1.57	1.21	2.12	5.95	7.16	1.85	.61	1.00	.42
(†)	1.72	2.51	2.19	3.08	2.85	2.45	2.27	2.54	1.86	1.82	2.20	1.76

WTR YR 1983 TOTAL 169220 MEAN 464 MAX 4630 MIN 47 CFSM 2.00 IN 27.13

† Diversion, in cubic feet per second, for municipal supply of Berlin; records furnished by City of Berlin.

01131500 CONNECTICUT RIVER NEAR DALTON, NH

LOCATION.--Lat 44°24'36", long 71°43'16", Coos County, Hydrologic Unit 01080101, on left bank 250 ft upstream from highway bridge, 1,200 ft downstream from dam of Gilman Paper Co., 1.2 mi downstream from Dalton, and at mile 300.1.

DRAINAGE AREA.--1,514 mi^2.

PERIOD OF RECORD.--Discharge: March 1927 to current year. Published as "at Waterford, Vt." 1927-35. Records published for both sites January to September 1935.
Water-quality records: Water years 1953, 1971.

REVISED RECORDS.--WSP 891: Drainage area. WSP 1231: 1935. WSP 1301: 1928-35(M).

GAGE.--Water-stage recorder. Datum of gage is 799.89 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1935, nonrecording gage at bridge 10.5 mi downstream at mean sea level. Jan. 1, 1935, to June 29, 1937, nonrecording gage at bridge 250 ft downstream at present datum. Since June 2, 1961, auxiliary water-stage recorder 10.8 mi downstream from base gage. July 11, 1956, to June 1, 1961, auxiliary nonrecording gage read hourly at same site.

REMARKS.--Records good except those for winter period and period of doubtful gage-height record, Mar. 29 to June 27, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis (Reservoirs in Connecticut River basin), and other reservoirs. These reservoirs have a combined usable capacity of about 8,300,000,000 ft^3. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--56 years, 2,908 ft^3/s, adjusted to drainage area at present site.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,300 ft^3/s Mar. 20, 1936, gage height, 25.6 ft; minimum daily, 115 ft^3/s Oct. 3, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,500 ft^3/s May 5, gage height, 16.93 ft; minimum daily, 440 ft^3/s Sept. 8.

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	1270	735	3770	2750	2050	1430	1830	11800	7250	1010	970	1230
2	1150	1040	3600	2550	1990	1530	1830	11800	6700	825	1360	1200
3	1090	2020	3920	2560	2050	2090	2160	13800	5060	1170	1600	888
4	1050	1980	4100	1600	3900	2410	2120	15600	4500	1300	1490	761
5	1100	3380	3930	1050	4580	2040	2280	17300	4350	1290	1150	692
6	893	9630	3560	1560	3540	1880	2450	15300	4090	2480	944	639
7	1010	9510	3700	1980	2890	1870	2830	9360	4850	2410	1010	733
8	1350	5280	3250	1870	2520	2010	3940	6780	6370	1850	932	440
9	2150	3450	2780	1850	2390	1890	5960	7860	4650	1520	1720	954
10	1870	2890	1990	1640	2150	1880	6540	11600	3500	1140	2870	516
11	1430	2350	1500	2180	1940	1920	6450	10800	3030	1550	2450	798
12	1290	2390	2080	5180	1790	2240	6400	9130	2740	1300	2430	832
13	1120	2780	1910	5180	2100	2340	5660	7780	2640	1350	3890	747
14	1110	5050	1150	3580	1850	2160	5830	6680	2510	1410	3200	680
15	992	4180	1640	2500	1750	2180	6910	5990	2060	1230	2210	643
16	1180	3140	2320	2250	1690	2570	7410	6970	2260	1150	1890	597
17	1430	2710	4850	1900	1660	2920	7530	7350	2430	1210	1510	967
18	1250	2590	4990	1500	1500	2940	7190	5830	2610	1010	1370	831
19	1230	2450	3070	1300	1360	3660	5660	5030	2930	923	1190	752
20	1100	2060	2670	1400	1290	6640	5010	4130	2530	1170	1220	1010
21	931	2030	2690	1550	1260	8180	5680	4390	2090	863	1140	1010
22	1140	2390	2750	1710	1250	6810	5180	4110	1960	1130	1070	1560
23	841	3220	2450	1820	1210	5240	4890	3670	1770	1540	948	2230
24	1100	4110	2170	2230	1280	3610	5490	4060	1640	1470	929	1720
25	814	4260	2100	3260	1250	2710	8690	4840	1450	1330	848	1540
26	813	3630	2830	3100	1330	2470	12400	4730	1350	1350	857	800
27	947	3060	4440	2770	1260	2350	13200	4190	1270	1070	877	740
28	813	2180	3830	2320	1380	2250	11900	4560	1220	885	1030	712
29	825	2380	3630	2270	---	2090	11100	4830	1280	811	1090	740
30	854	3330	3710	2130	---	1840	11700	4460	921	756	1040	824
31	796	---	3100	1980	---	1830	---	6120	---	824	1110	---
TOTAL	34939	100205	94480	71520	55210	87980	186220	240850	92011	39327	46345	27786
MEAN	1127	3340	3048	2307	1972	2838	6207	7769	3067	1269	1495	926
MAX	2150	9630	4990	5180	4580	8180	13200	17300	7250	2480	3890	2230
MIN	796	735	1150	1050	1210	1430	1830	3670	921	756	848	440

CAL YR 1982 TOTAL 1071212 MEAN 2935 MAX 23000 MIN 397
WTR YR 1983 TOTAL 1076873 MEAN 2950 MAX 17300 MIN 440

01134500 MOOSE RIVER AT VICTORY, VT

LOCATION.--Lat 44°30'42", long 71°50'13", Essex County, Hydrologic Unit 01080102, on right bank at Victory, 2.7 mi upstream from highway bridge.

DRAINAGE AREA.--75.2 mi^2.

PERIOD OF RECORD.--January 1947 to current year.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1381: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,103.99 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter period which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--36 years, 143 ft^3/s, 25.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,340 ft^3/s July 1, 1973, gage height, 12.04 ft; minimum, 2.6 ft^3/s Aug. 21, 22, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 5	2300	1750	8.79	May 4	1400	*1840	8.92
Apr. 26	0630	1050	7.56				

Minimum discharge, 11 ft^3/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	46	41	183	105	68	46	90	567	538	22	73	67
2	44	97	201	94	64	56	105	607	348	46	300	45
3	41	129	225	80	140	95	123	836	226	266	218	33
4	37	88	235	76	638	130	130	1450	198	110	95	27
5	33	714	197	72	430	105	147	1000	226	134	58	23
6	29	1150	169	68	190	72	177	576	178	456	44	21
7	27	472	163	64	140	74	189	369	394	198	38	19
8	134	226	128	58	110	90	312	288	306	99	32	17
9	185	166	105	54	90	84	364	506	190	86	272	15
10	103	131	95	50	74	76	386	649	147	73	162	14
11	72	111	92	200	70	97	296	538	122	54	76	16
12	59	107	84	517	66	114	323	476	104	57	386	21
13	53	286	75	265	64	107	300	361	90	52	431	17
14	62	388	70	120	62	86	417	294	77	41	147	15
15	66	211	68	92	60	97	501	280	66	34	85	13
16	92	156	120	80	58	134	453	429	65	31	60	12
17	93	128	425	75	56	145	426	353	224	28	48	13
18	75	114	277	70	54	153	325	240	183	23	42	18
19	63	103	125	68	52	232	255	200	124	20	40	19
20	56	91	110	66	52	573	276	226	82	25	36	17
21	57	89	95	64	50	674	348	244	62	30	33	15
22	57	176	82	62	50	358	278	195	52	107	27	124
23	50	247	70	62	49	215	325	183	45	81	29	108
24	45	263	72	200	49	145	397	206	38	48	27	52
25	42	229	78	313	48	125	701	272	33	75	22	36
26	41	161	210	200	48	115	969	203	32	45	20	28
27	39	130	233	125	47	100	775	244	32	29	60	24
28	38	110	151	95	47	98	645	340	36	23	74	22
29	37	115	218	80	---	96	649	248	31	21	52	19
30	36	191	194	72	---	86	617	296	26	25	81	18
31	35	---	115	70	---	84	---	541	---	33	76	---
TOTAL	1847	6620	4665	3617	2926	4662	11299	13217	4275	2372	3144	888
MEAN	59.6	221	150	117	105	150	377	426	143	76.5	101	29.6
MAX	185	1150	425	517	638	674	969	1450	538	456	431	124
MIN	27	41	68	50	47	46	90	183	26	20	20	12
CFSM	.79	2.94	2.00	1.56	1.40	2.00	5.01	5.67	1.90	1.02	1.34	.39
IN.	.91	3.27	2.31	1.79	1.45	2.31	5.59	6.54	2.11	1.17	1.56	.44

CAL YR 1982 TOTAL 58136.6 MEAN 159 MAX 1950 MIN 8.6 CFSM 2.11 IN 28.76
WTR YR 1983 TOTAL 59532.0 MEAN 163 MAX 1450 MIN 12 CFSM 2.17 IN 29.45

01135000 MOOSE RIVER AT ST. JOHNSBURY, VT

LOCATION.--Lat 44°25'22", long 72°00'02", Caledonia County, Hydrologic Unit 01080102, on left bank at St. Johnsbury 0.5 mi upstream from mouth.

DRAINAGE AREA.--128 mi^2.

PERIOD OF RECORD.--Discharge: August 1928 to September 1983 (discontinued). Water-quality records: Water year 1955.

REVISED RECORDS.--WSP 1231: 1929-30, 1931-34(M). WSP 1381: Drainage area. WSP 1701: 1959.

GAGE.--Water-stage recorder. Altitude of gage is 585 ft, from topographic map. Prior to Nov. 16, 1934, nonrecording gage at site 0.2 mi upstream at different datum.

REMARKS.--Records fair except those for winter period and periods of no gage-height record, Jan. 10 to Mar. 2, which are poor. Shifting control method used July 6 to Sept. 30.

AVERAGE DISCHARGE.--55 years, 220 ft^3/s, 23.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,820 ft^3/s May 5, 1972, gage height, 4.23 ft; maximum gage height, 8.3 ft Apr. 30, 1929, from graph based on gage readings, site and datum then in use; minimum discharge, 6.2 ft^3/s Sept. 17, 18, 1948, Aug. 27, 28, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,890 ft^3/s May 4, gage height, 4.11 ft, no other peak above base of 1,700 ft^3/s; minimum, 26 ft^3/s Sept. 16, 17; minimum daily, 31 ft^3/s July 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	63	47	277	172	94	70	160	772	650	51	166	106
2	56	89	275	149	90	80	189	866	471	128	403	75
3	53	162	284	122	190	140	215	1160	331	324	280	55
4	48	117	285	77	880	170	224	1780	296	223	156	47
5	43	741	271	70	600	165	241	1450	320	158	102	42
6	40	1080	234	70	260	125	277	784	277	505	80	38
7	37	602	229	68	190	150	294	515	482	321	68	34
8	197	334	188	66	150	181	450	404	425	172	62	32
9	271	244	145	66	125	166	498	666	281	136	285	29
10	157	195	90	64	105	176	515	736	227	128	236	28
11	109	164	100	280	98	221	587	671	190	93	130	31
12	86	156	95	720	92	211	600	579	163	85	489	34
13	76	378	88	370	90	186	523	473	142	86	513	33
14	78	486	86	170	86	162	623	393	129	67	240	30
15	89	312	84	130	83	184	699	366	120	53	147	28
16	98	233	210	110	82	262	626	512	151	50	108	27
17	115	192	540	105	78	282	625	452	279	42	86	30
18	99	167	340	98	76	314	519	333	349	35	75	34
19	81	150	170	94	74	608	414	282	272	31	68	34
20	71	137	130	92	74	1210	509	297	175	34	64	32
21	67	137	120	88	74	1100	589	325	130	62	55	29
22	69	244	100	86	74	722	481	274	108	136	51	120
23	62	322	88	84	74	350	516	261	96	124	51	158
24	57	330	90	280	72	250	611	281	81	91	48	84
25	53	301	98	430	70	220	893	341	72	105	43	59
26	51	236	270	280	70	200	1230	281	68	76	39	48
27	50	190	300	190	70	180	1130	317	74	51	66	43
28	48	135	190	130	70	175	921	427	75	39	118	40
29	47	180	270	110	---	170	861	340	67	35	80	36
30	46	258	278	100	---	160	846	383	58	37	92	34
31	45	---	206	96	---	150	---	619	---	41	103	---
TOTAL	2462	8319	6131	4967	4091	8740	16866	17340	6559	3519	4504	1450
MEAN	79.4	277	198	160	146	282	562	559	219	114	145	48.3
MAX	271	1080	540	720	880	1210	1230	1780	650	505	513	158
MIN	37	47	84	64	70	70	160	261	58	31	39	27
CFSM	.62	2.16	1.55	1.25	1.14	2.20	4.39	4.37	1.71	.89	1.13	.38
IN.	.72	2.42	1.78	1.44	1.19	2.54	4.90	5.04	1.91	1.02	1.31	.42

CAL YR 1982 TOTAL 80151 MEAN 220 MAX 2100 MIN 17 CFSM 1.72 IN 23.29
WTR YR 1983 TOTAL 84948 MEAN 233 MAX 1780 MIN 27 CFSM 1.82 IN 24.69

01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT

LOCATION.--Lat 44°21'56", long 72°02'23", Caledonia County, Hydrologic Unit 01080102, on right bank 0.7 mi upstream from Water Andric, 1 mi downstream from dam and village of Passumpsic, and 4 mi upstream from mouth.

DRAINAGE AREA.--436 mi^2.

PERIOD OF RECORD.--Discharge: October 1928 to current year. Monthly discharge only October 1928, published in WSP 1301.
Water-quality records: Water years 1953, 1967-74 (partial-record station).

REVISED RECORDS.--WSP 781: 1933(M). WSP 871: Drainage area. WSP 1231: 1929, 1930-31(M).

GAGE.--Water-stage recorder. Altitude of gage is 490 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Low flow regulated by powerplants upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--55 years, 739 ft^3/s, 23.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,200 ft^3/s July 1, 1973, gage height, 23.49 ft, from rating curve extended above 14,000 ft^3/s on basis of computation of flow over dam at gage height 21.23 ft; minimum daily, 13 ft^3/s Sept. 12, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1780, about 31.5 ft in November 1927, from information by local residents (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 4	0615	5820	10.15	May 4	1045	*8310	12.90

Minimum daily discharge, 102 ft^3/s Sept. 18.

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	264	221	820	570	410	370	672	2740	2540	250	596	480
2	266	392	839	540	400	460	707	2930	1610	268	1160	331
3	285	624	868	500	2450	780	776	3900	1190	1020	897	223
4	263	453	882	450	4800	700	916	7210	1100	616	492	220
5	213	2740	799	420	2550	620	884	4100	1190	440	365	210
6	206	2890	709	400	1400	520	1040	2490	1030	948	278	171
7	209	1370	749	380	1100	670	1080	1880	2100	702	270	166
8	839	850	611	360	960	760	1610	1580	1460	467	228	182
9	952	656	536	330	840	660	1680	3330	1050	399	1190	142
10	576	574	503	300	760	660	1750	3150	844	408	813	153
11	422	515	450	1800	680	1350	2000	2540	757	350	488	171
12	362	490	425	2100	600	1300	1970	2320	673	287	2060	166
13	327	914	360	1100	570	757	1680	1790	622	316	1480	200
14	318	1100	350	800	540	651	1980	1530	538	253	757	158
15	327	762	343	600	500	741	2120	1450	509	261	505	121
16	386	623	645	500	480	1120	1930	2070	541	228	370	158
17	463	554	1650	450	460	1040	2060	1640	1050	229	319	174
18	392	496	1380	420	450	1110	1640	1260	1140	252	306	102
19	349	461	1000	410	440	2200	1320	1110	806	206	265	194
20	281	414	700	400	430	3950	1590	1170	618	146	234	188
21	309	463	600	390	420	2550	1810	1250	468	294	238	138
22	298	616	525	380	410	1830	1490	1060	395	683	245	673
23	272	877	500	370	410	1110	1670	1010	351	548	235	636
24	250	974	472	1800	400	832	1960	1140	336	376	177	296
25	231	871	454	1650	400	714	3400	1410	283	514	147	226
26	231	688	952	1000	390	718	3800	1060	283	386	162	223
27	235	600	1240	740	380	636	3240	1320	304	276	329	210
28	238	450	776	600	370	645	2690	1710	344	213	642	158
29	216	540	936	500	---	669	2670	1240	295	180	304	185
30	258	787	880	440	---	556	2680	1530	265	176	319	188
31	219	---	600	420	---	540	---	2470	---	249	417	---
TOTAL	10457	23965	22554	21120	24000	31219	54815	65390	24692	11941	16288	6843
MEAN	337	799	728	681	857	1007	1827	2109	823	385	525	228
MAX	952	2890	1650	2100	4800	3950	3800	7210	2540	1020	2060	673
MIN	206	221	343	300	370	370	672	1010	265	146	147	102
CFSM	.77	1.83	1.67	1.56	1.97	2.31	4.19	4.84	1.89	.88	1.20	.52
IN.	.89	2.04	1.92	1.80	2.05	2.66	4.68	5.58	2.11	1.02	1.39	.58

CAL YR 1982 TOTAL 288577 MEAN 791 MAX 8720 MIN 114 CFSM 1.81 IN 24.62
WTR YR 1983 TOTAL 313284 MEAN 858 MAX 7210 MIN 102 CFSM 1.97 IN 26.73

01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH

LOCATION.--Lat 44°16'08", long 71°37'52", Grafton County, Hydrologic Unit 01080101, on left bank 0.2 mi upstream from Pierce Bridge and Bethlehem Junction, 0.8 mi upstream from unnamed tributary entering from left, 3 mi east of Bethlehem, 3.4 mi downstream from Little River, and at mile 35.0.

DRAINAGE AREA.--87.6 mi^2.

PERIOD OF RECORD.--Discharge: August 1939 to current year.
Water-quality records: Water years 1967-74.

REVISED RECORDS.--WSP 1701: 1951(M), 1953-54(M).

GAGE.--Water-stage recorder. Datum of gage is 1,180.74 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records excellent except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--44 years, 208 ft^3/s, 32.24 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft^3/s Oct. 24, 1959, gage height, 12.09 ft, from rating curve extended above 4,100 ft^3/s on basis of slope-area measurement of peak flow; minimum, 16 ft^3/s Nov. 14, 1952; caused by anchor ice upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 3,500 ft^3/s May 3, gage height 7.25 ft, no other peak above base of 2,700 ft^3/s; minimum 32 ft^3/s Sept. 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	53	56	212	105	94	68	131	1810	442	58	105	91
2	57	74	186	90	92	100	135	1570	298	69	224	65
3	55	87	176	50	820	200	148	2510	243	93	201	54
4	51	71	176	35	633	110	170	1720	253	65	105	49
5	49	673	163	60	225	96	193	914	274	156	83	46
6	46	411	154	90	150	90	197	655	224	282	81	44
7	45	210	152	80	125	96	197	519	266	128	101	41
8	229	159	131	70	110	105	445	591	215	89	85	40
9	176	136	114	65	100	94	478	1620	180	78	418	39
10	123	119	70	60	95	101	408	864	159	70	176	38
11	92	107	100	1000	100	197	680	615	143	65	123	40
12	79	105	80	449	105	145	415	515	131	71	360	39
13	72	807	55	200	115	122	336	467	123	69	229	36
14	71	398	65	115	110	103	442	523	114	62	142	35
15	72	241	98	100	105	110	428	515	105	56	110	34
16	85	186	460	90	100	127	351	793	114	55	94	34
17	82	157	481	82	98	127	489	435	154	51	85	35
18	75	140	190	76	96	123	354	330	199	48	78	40
19	70	128	150	74	94	538	293	285	167	46	75	40
20	68	117	150	72	90	1150	467	418	123	49	73	36
21	69	116	135	120	84	558	366	411	103	54	65	33
22	68	182	110	110	80	566	285	324	89	290	62	467
23	63	243	105	130	78	327	333	369	82	165	66	154
24	61	248	115	440	76	219	688	324	74	96	59	89
25	58	234	125	282	74	182	2110	318	75	89	54	72
26	58	172	220	160	70	167	1270	266	75	77	51	63
27	56	140	165	115	76	156	904	271	73	66	61	58
28	55	116	155	115	68	157	1100	324	83	60	63	55
29	54	182	175	120	---	165	1670	269	71	58	55	51
30	53	307	130	115	---	138	1600	313	63	60	57	49
31	51	---	80	100	---	130	---	507	---	59	98	---
TOTAL	2296	6322	4878	4770	4063	6567	17083	21365	4715	2734	3639	1967
MEAN	74.1	211	157	154	145	212	569	689	157	88.2	117	65.6
MAX	229	807	481	1000	820	1150	2110	2510	442	290	418	467
MIN	45	56	55	35	68	68	131	266	63	46	51	33
CFSM	.85	2.41	1.79	1.76	1.66	2.42	6.50	7.87	1.79	1.01	1.34	.75
IN.	.98	2.68	2.07	2.03	1.73	2.79	7.25	9.07	2.00	1.16	1.55	.84

CAL YR 1982 TOTAL 72166 MEAN 198 MAX 2780 MIN 34 CFSM 2.26 IN 30.65
WTR YR 1983 TOTAL 80399 MEAN 220 MAX 2510 MIN 33 CFSM 2.51 IN 34.14

01138500 CONNECTICUT RIVER AT WELLS RIVER, VT

LOCATION.--Lat 44°09'13", long 72°02'34", Orange County, Hydrologic Unit 01080101, on right bank at village of Wells River, 200 ft downstream from bridge on U.S. Highway 302, 400 ft upstream from Wells River, 1,200 ft downstream from Ammonoosuc River, and at mile 266.0.

DRAINAGE AREA.--2,644 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year. October and November 1949 monthly discharge only, published in WSP 1301.

GAGE.--Water-stage recorder. Datum of gage is 399.75 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants, by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs (Reservoirs in Connecticut River basin), and other reservoirs, combined usable capacity, about 14,800,000,000 ft^3.

AVERAGE DISCHARGE.--34 years, 4,731 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,100 ft^3/s July 1, 1973, gage height, 17.35 ft, from peak-stage indicator; minimum daily, 152 ft^3/s Aug. 28, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,100 ft^3/s May 4, gage height, 9.92 ft; minimum daily, 349 ft^3/s 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	3200	1140	5910	3100	4800	4370	4400	19400	13200	1570	3670	3190
2	2710	1820	5500	2900	4200	3130	3790	20300	12600	1270	5020	2630
3	692	2710	5830	3200	6500	3900	2600	24400	12100	1650	4460	816
4	2680	3760	6750	3600	10500	2950	4660	26200	11200	1160	3300	447
5	2090	6340	5920	3500	7800	2890	4560	25500	5930	2180	2480	760
6	1500	10200	5400	2890	5400	1940	3510	21800	5440	3680	1630	2510
7	1490	12900	5900	3090	5200	4240	2970	16500	9020	3700	786	3860
8	2400	8100	5890	1770	5000	7480	6220	11300	9550	3100	2410	1320
9	2550	7010	4360	1320	4400	6760	7840	16000	8200	2750	3990	644
10	1180	4980	4090	3600	4800	6990	5600	17300	6750	683	4570	782
11	1760	3230	1500	6530	5000	7480	12200	19000	4480	2330	3640	682
12	2140	3940	930	8640	2300	7670	12800	16600	960	2840	4900	1980
13	2420	7950	3700	7210	920	4040	11700	13700	4330	2840	4480	1230
14	1930	7400	3100	5400	4300	5110	11700	12900	4880	2810	1460	855
15	1990	6280	3200	4000	4000	6710	12500	10700	3990	2770	4810	1460
16	916	5160	3700	2300	4100	4920	13200	13300	4670	1670	2830	797
17	965	4230	7120	3700	3700	6580	13800	13500	5190	712	3660	607
18	2190	3790	6330	3800	3000	7250	13500	11900	5280	1740	3200	485
19	2700	3890	4180	4300	2700	9140	11200	9400	2840	1630	3070	1940
20	2790	2880	5060	4100	2300	14100	10800	7530	4810	2240	1300	2680
21	2410	1850	5400	3000	2400	14100	10900	7080	4160	2080	353	2360
22	2320	3940	5020	1800	4630	13300	11000	5250	3840	2300	1880	3020
23	1260	5790	4200	980	5490	10400	10400	6420	3620	2000	2910	2080
24	575	6600	3100	4800	4390	7400	10600	6410	3630	890	2530	1270
25	2260	6180	2000	5500	3890	7400	18400	8160	1730	2190	2960	687
26	2460	6560	3600	5200	2920	6240	22100	9030	630	2930	873	2150
27	1950	3970	5620	5000	1840	4040	20400	7930	2600	2860	349	2350
28	1190	3220	6500	5200	3820	5750	17500	9250	2620	2990	1410	2230
29	939	4810	6590	3700	---	5340	18200	9080	2690	2120	2050	1860
30	507	4920	6690	3400	---	4020	18700	9370	1850	1440	3590	1960
31	477	---	5900	4200	---	3740	---	12600	---	577	4380	---
TOTAL	56641	155550	148990	121730	120300	199380	327750	417810	162790	65702	88951	49642
MEAN	1827	5185	4806	3927	4296	6432	10930	13480	5426	2119	2869	1655
MAX	3200	12900	7120	8640	10500	14100	22100	26200	13200	3700	5020	3860
MIN	477	1140	930	980	920	1940	2600	5250	630	577	349	447

CAL YR 1982 TOTAL 1829232 MEAN 5012 MAX 32300 MIN 230
WTR YR 1983 TOTAL 1915236 MEAN 5247 MAX 26200 MIN 349

01138500 CONNECTICUT RIVER AT WELLS RIVER, VT.--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952, 1957, 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to September 1982.
WATER TEMPERATURE: October 1979 to September 1982.

REVISIONS.--WDR NH-VT-81-1: 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	BARO-METRIC PRES-SURE (MM OF HG)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 25...	0930	1070	82	--	--	9.0	--	--	--	--	--
NOV 30...	1400	4950	79	756	6.8	4.5	1.4	12.9	100	370	760
DEC 01...	1100	5380	68	--	--	6.0	--	--	--	--	--
JAN 11...	0830	3370	70	--	--	1.0	--	--	--	--	--
FEB 28...	0900	2010	55	--	--	0.5	--	--	--	--	--
MAR 30...	1030	3350	85	755	6.7	0.5	2.2	14.7	103	22	48
MAY 16...	0800	12300	60	--	--	9.0	--	--	--	--	--
JUN 01...	1315	13200	73	745	6.9	11.0	2.4	11.5	107	490	1300
28...	0945	780	105	--	--	17.0	--	--	--	--	--
JUL 29...	1300	2570	78	756	6.9	20.0	1.4	8.7	96	83	150
AUG 09...	1130	2360	110	--	--	23.0	--	--	--	--	--

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)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	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...	--	--	--	--	--	--	--	--	--	--	--
NOV 30...	26	0.52	8.6	1.1	4.1	25	0.4	0.7	19	12	5.1
DEC 01...	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--	--
FEB 28...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	27	0.55	9.1	1.1	4.2	24	0.4	1.0	20	12	5.6
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
JUN 01...	30	0.59	10	1.1	2.5	15	0.2	0.8	22	11	3.2
28...	--	--	--	--	--	--	--	--	--	--	--
JUL 29...	29	0.57	9.6	1.1	3.0	18	0.3	1.0	21	12	4.8
AUG 09...	--	--	--	--	--	--	--	--	--	--	--

01138500 CONNECTICUT RIVER AT WELLS RIVER, VT.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)
OCT 25...	--	--	--	--	--	--	--	--	--	--
NOV 30...	<0.1	6.7	69	50	0.31	0.06	0.08	0.2	0.01	0.03
DEC 01...	--	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--
FEB 28...	--	--	--	--	--	--	--	--	--	--
MAR 30...	0.1	6.4	56	52	0.35	0.05	0.06	0.2	0.06	0.18
MAY 16...	--	--	--	--	--	--	--	--	--	--
JUN 01...	0.2	5.5	59	48	0.18	0.04	0.05	0.2	<0.00	--
28...	--	--	--	--	--	--	--	--	--	--
JUL 29...	0.1	5.4	86	50	0.18	<0.00	--	0.4	0.03	0.09
AUG 09...	--	--	--	--	--	--	--	--	--	--

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT 25...	--	--	--	--	--	--	--	--	--	--
NOV 30...	<0.01	<0.01	0.03	8	107	67	1	14.00	<1	<1
DEC 01...	--	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--
FEB 28...	--	--	--	--	--	--	--	--	--	--
MAR 30...	0.04	0.02	0.06	14	127	93	1	42.00	<1	<1
MAY 16...	--	--	--	--	--	--	--	--	--	--
JUN 01...	0.00	0.00	--	18	642	92	1	21.00	1	<1
28...	--	--	--	--	--	--	--	--	--	--
JUL 29...	0.04	<0.00	--	2	14	100	1	15.00	2	<1
AUG 09...	--	--	--	--	--	--	--	--	--	--

DATE	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 25...	--	--	--	--	--	--	--	--	--	--
NOV 30...	<3.00	2	110	4	23	<0.1	<1	--	1	<4.00
DEC 01...	--	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--
FEB 28...	--	--	--	--	--	--	--	--	--	--
MAR 30...	<3.00	7	90	6	34	<0.1	1	<1	<1	20
MAY 16...	--	--	--	--	--	--	--	--	--	--
JUN 01...	<3.00	2	60	<1	13	<0.1	<1	<1	<1	5.00
28...	--	--	--	--	--	--	--	--	--	--
JUL 29...	3.00	7	60	2	18	<0.1	4	<1	<1	5.00
AUG 09...	--	--	--	--	--	--	--	--	--	--

01139000 WELLS RIVER AT WELLS RIVER, VT

LOCATION.--Lat 44°09'03", long 72°03'55", Orange County, Hydrologic Unit 01080103, on right bank, 0.8 mi west of village of Wells River, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--98.4 mi^2.

PERIOD OF RECORD.--Discharge: August 1940 to current year.
Water-quality records: Water years 1957-58.

REVISED RECORDS.--WSP 1171: Drainage area. WSP 1201: 1942(P), 1944-45(M), 1946-47(P), 1948(M), 1950.

GAGE.--Water-stage recorder. Datum of gage is 505.53 ft National Geodetic Vertical Datum of 1929 (levels by Connecticut River Power Co.).

REMARKS.--Records good except those for winter period, which are poor. Some diurnal fluctuation at low flow prior to 1958 caused by small powerplant upstream. Flow partly regulated by Groton and Ricker Ponds. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--43 years, 142 ft^3/s, 19.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,970 ft^3/s June 30, 1973, gage height, 9.82 ft, from rating curve extended above 1,400 ft^3/s on basis of computation of peak flow over dam; minimum, 5.1 ft^3/s Oct. 6, 1948; minimum daily, 8.3 ft^3/s Sept. 5, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 980 ft^3/s and maximums (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 24	0930	ice jam	*5.18	May 4	1100	*1110	4.65
Apr. 25	0400	1080	4.61				

Minimum discharge, 25 ft^3/s Oct. 7, 8.

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	33	31	123	92	90	74	141	549	451	65	134	225
2	33	55	111	84	86	170	158	598	339	64	293	127
3	31	67	99	70	450	240	175	894	268	74	132	92
4	28	54	93	50	470	110	198	974	281	64	88	73
5	27	328	85	54	240	100	216	725	313	63	72	64
6	26	204	82	56	220	105	262	507	254	93	62	56
7	26	122	79	54	200	185	278	410	423	78	61	51
8	86	93	72	52	180	180	400	359	310	65	58	44
9	90	78	63	50	160	130	417	736	238	65	160	38
10	77	67	44	49	150	160	417	563	192	63	95	35
11	59	57	60	354	140	262	558	465	163	60	70	35
12	50	58	52	248	130	219	545	441	144	56	349	35
13	44	132	40	150	120	158	473	383	130	55	216	33
14	45	121	42	120	115	138	491	339	114	52	125	30
15	44	92	48	105	110	151	476	296	103	47	90	28
16	58	79	120	94	105	189	423	465	95	46	72	27
17	57	68	210	90	105	175	465	369	293	45	64	27
18	50	61	120	86	100	198	434	303	320	41	61	39
19	45	56	105	84	98	362	369	265	326	36	58	35
20	41	54	100	82	90	622	455	274	213	34	54	33
21	38	69	94	80	88	437	465	271	151	32	47	30
22	36	96	90	80	88	430	410	238	118	43	40	98
23	34	137	86	100	90	300	430	238	100	47	41	76
24	32	131	84	400	84	225	499	242	86	41	42	54
25	31	112	82	250	80	181	957	222	88	77	38	46
26	30	95	173	160	74	160	845	192	88	54	35	42
27	30	87	151	130	72	147	720	306	92	42	33	39
28	30	68	123	115	72	151	612	359	96	37	34	36
29	30	91	142	105	---	165	585	278	83	35	51	34
30	29	140	115	98	---	140	580	393	72	35	163	31
31	29	---	98	94	---	132	---	537	---	34	379	---
TOTAL	1299	2903	2986	3636	4007	6396	13454	13191	5944	1643	3217	1613
MEAN	41.9	96.8	96.3	117	143	206	448	426	198	53.0	104	53.8
MAX	90	328	210	400	470	622	957	974	451	93	379	225
MIN	26	31	40	49	72	74	141	192	72	32	33	27
CFSM	.43	.98	.98	1.19	1.45	2.09	4.55	4.33	2.01	.54	1.06	.55
IN.	.49	1.10	1.13	1.37	1.51	2.42	5.09	4.99	2.25	.62	1.22	.61

CAL YR 1982 TOTAL 51493 MEAN 141 MAX 1430 MIN 18 CFSM 1.43 IN 19.47
WTR YR 1983 TOTAL 60289 MEAN 165 MAX 974 MIN 26 CFSM 1.68 IN 22.79

01139800 EAST ORANGE BRANCH AT EAST ORANGE, VT

LOCATION.--Lat 44°05'34", long 72°20'10", Orange County, Hydrologic Unit 01080103, on left bank 0.3 mi east of East Orange, 1.6 mi upstream from mouth, and 5 mi southwest of Orange.

DRAINAGE AREA.--8.95 mi^2.

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

REVISED RECORDS.--WDR MA-NH-RI-VT-72-1: 1960-64(P), 1969-71(P).

GAGE.--Water-stage recorder. Altitude of gage is 1,180 ft, from topographic map.

REMARKS.--Records poor. Occasional diurnal fluctuation at low flow caused by mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--25 years, 15.7 ft^3/s, 23.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 672 ft^3/s June 30, 1973, gage height, 5.55 ft, from rating curve extended above 44 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 6.35 ft Jan. 22, 1959, ice jam; minimum discharge, 0.1 ft^3/s Sept. 9, 19, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 171 ft^3/s Apr. 24, 1983, gage height, 4.16 ft, no other peak above base of 140 ft^3/s; maximum gage height, 4.22 ft Feb. 3; ice jam; minimum discharges, 1.1 ft^3/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	2.4	4.1	6.4	9.0	6.0	6.2	19	76	39	5.9	16	6.8
2	2.4	6.4	5.3	8.8	5.8	13	20	81	35	5.9	14	4.2
3	2.3	5.1	4.5	7.0	40	12	20	83	34	5.7	4.5	3.1
4	2.2	4.4	4.2	4.8	24	11	22	80	45	4.4	3.1	2.5
5	2.1	22	3.7	5.0	16	20	25	66	37	6.1	2.7	2.2
6	2.1	13	4.4	5.6	15	23	32	61	43	6.8	2.2	2.0
7	2.1	12	4.8	5.4	13	15	31	57	48	5.1	2.1	1.8
8	13	11	4.2	5.0	11	14	48	59	35	4.0	2.2	1.6
9	7.6	11	3.5	4.8	10	13	48	72	32	4.5	16	1.5
10	4.6	9.8	2.3	4.7	9.8	19	45	59	30	3.4	4.0	2.7
11	3.4	9.1	3.9	47	9.0	19	51	55	28	3.1	9.8	2.4
12	3.0	10	3.0	10	8.2	16	47	51	25	3.4	30	2.2
13	2.9	19	2.0	6.4	8.0	15	51	45	23	2.8	8.6	1.7
14	3.2	11	2.1	6.2	7.6	16	59	43	21	2.4	5.1	1.5
15	3.5	9.6	2.6	6.2	7.3	15	55	44	18	2.2	3.9	1.5
16	3.4	8.4	26	6.0	7.0	16	58	51	17	1.9	3.2	1.4
17	3.2	8.0	29	6.0	6.9	16	61	39	16	1.7	2.6	2.8
18	2.3	7.4	14	6.0	6.8	17	57	35	17	1.6	3.6	2.9
19	1.8	7.0	11	5.8	6.6	31	55	33	15	1.4	3.2	2.1
20	2.0	6.8	10	5.6	6.6	30	64	37	13	1.4	2.6	1.8
21	2.2	6.8	9.0	5.6	6.8	22	66	33	11	1.6	1.8	1.7
22	1.8	7.2	8.6	5.4	7.0	22	81	30	9.6	4.2	4.8	11
23	1.7	11	8.4	8.0	6.9	21	81	36	8.2	2.2	4.2	3.4
24	1.6	8.0	8.0	23	6.6	27	95	33	7.4	3.2	2.5	2.7
25	1.6	6.4	8.6	14	6.3	35	74	31	13	3.4	2.0	2.4
26	1.6	5.9	20	9.6	6.0	31	74	27	9.6	2.1	1.8	2.2
27	1.6	5.3	14	8.0	5.9	31	72	53	16	1.6	2.3	2.2
28	1.5	5.6	13	7.0	6.0	22	79	34	11	1.4	8.4	2.0
29	1.5	6.4	15	6.6	---	22	79	29	7.8	1.6	14	2.0
30	1.4	8.4	12	6.4	---	29	81	61	6.4	1.7	9.3	1.8
31	1.9	---	9.6	6.1	---	29	---	51	---	1.4	18	---
TOTAL	87.9	266.1	273.1	265.0	276.1	628.2	1650	1545	671.0	98.1	208.5	80.1
MEAN	2.84	8.87	8.81	8.55	9.86	20.3	55.0	49.8	22.4	3.16	6.73	2.67
MAX	13	22	29	47	40	35	95	83	48	6.8	30	11
MIN	1.4	4.1	2.0	4.7	5.8	6.2	19	27	6.4	1.4	1.8	1.4
CFSM	.32	.99	.98	.96	1.10	2.27	6.15	5.56	2.50	.35	.75	.30
IN.	.37	1.11	1.13	1.10	1.15	2.61	6.86	6.42	2.79	.41	.87	.33

CAL YR 1982 TOTAL 5293.8 MEAN 14.5 MAX 160 MIN 1.4 CFSM 1.62 IN 22.00
WTR YR 1983 TOTAL 6049.1 MEAN 16.6 MAX 95 MIN 1.4 CFSM 1.86 IN 25.14

01140570 LAKE MOREY TRIBUTARY 6 NEAR FAIRLEE, VT

LOCATION.--Lat 43°56'10", long 72°08'14", Orange County, Hydrologic Unit 01080103, on right bank 40 ft downstream from culvert at perimeter road on north side of Lake Morey, 450 ft to the east of northbound road to Bradford, 0.11 mi upstream from Lake Morey and 2.0 mi north of Fairlee center.

DRAINAGE AREA.--0.58 mi^2.

PERIOD OF RECORD.--Discharge: May 1981 to November 1982 (discontinued).
Water-quality records: January 1981 to November 1982 (discontinued).

GAGE.--Water-stage recorder and Parshall flume with removable V-notch sharp crested weir. Altitude of gage is 425 ft from topographic map.

REMARKS.--Records excellent except those for winter period and period of no gage height record Apr. 7-20, 1982, which are good.

EXTREMES.--Maximum and minimum discharges for water years 1981-83 are contained in the following table.

	Maximum			Minimum	
Water Year	Date	Discharge (ft^3/s)	Gage height (ft)	Date	Discharge (ft^3/s)
†1981	Sept. 22, 1981	11.6	1.27	July 25, 1981	0.10
1982	Apr. 18, 1982	10	--	Sept. 19, 1982	.05
‡1983	Nov. 5, 1982	5.1	1.33	Oct. 4-7, 1982	.10

† For period May to September 1981.
‡ For period October to November 1982.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1981
MEAN VALUES

DAY	MAY	JUN	JUL	AUG	SEP
1	.88	1.2	.20	.21	.18
2	.88	1.0	.19	.20	.16
3	.77	.90	.20	.20	.16
4	.71	1.0	.20	.19	.15
5	.66	.90	.51	.27	.15
6	.66	.75	.42	.26	.14
7	.60	.70	.24	.21	.13
8	.55	.65	.20	.23	.13
9	.51	.95	.29	.29	1.5
10	.42	.75	.29	2.5	.34
11	.51	.55	.19	.42	.44
12	.93	.38	.15	.37	.26
13	2.8	.47	.41	.29	.21
14	.99	.33	.32	.19	.20
15	.82	.29	.21	.50	.29
16	1.9	.25	.16	1.8	.20
17	1.1	.38	.15	.57	.18
18	.88	.29	.16	.42	.18
19	.82	.31	.15	.33	.40
20	.71	.42	.27	.27	.33
21	.71	.62	.59	.24	.21
22	.66	.47	.34	.26	6.0
23	.60	.38	.20	.26	4.8
24	.55	.29	.16	.24	2.2
25	.51	.40	.14	.21	1.7
26	.42	.49	.14	.20	1.5
27	.51	.33	.47	.23	2.3
28	.51	.26	.14	.21	3.5
29	.42	.24	1.1	.20	2.8
30	.42	.21	.35	.19	2.0
31	1.5	---	.27	.19	---
TOTAL	24.91	16.16	8.81	12.15	32.74
MEAN	.80	.54	.28	.39	1.09
MAX	2.8	1.2	1.1	2.5	6.0
MIN	.42	.21	.14	.19	.13
CFSM	1.38	.93	.48	.67	1.88
IN.	1.59	1.03	.56	.78	2.10

01140570 LAKE MOREY TRIBUTARY 6 NEAR FAIRLEE, VT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	1.7	.82	.59	.37	.33	3.9	.95	.38	.45	.23	.09
2	.80	1.5	1.3	.58	.38	.33	3.0	.95	1.2	.41	.20	.12
3	1.3	1.3	.99	.56	.50	.33	2.9	.89	.37	.49	.27	.24
4	1.1	1.2	.92	.55	.80	.32	3.1	.83	.32	.40	.16	.12
5	.90	1.1	.85	.95	1.4	.32	2.3	.78	.32	.29	.20	.10
6	.84	1.6	.85	1.3	1.5	.32	1.9	.72	1.1	.33	.16	.09
7	.88	1.2	.82	1.2	1.1	.32	1.7	.72	.72	.31	.14	.07
8	.86	1.0	.82	1.1	.80	.32	1.5	.67	.44	.27	.19	.07
9	.82	.96	.79	.90	.60	.33	1.4	.83	.42	.26	.40	.07
10	.79	.89	.76	.80	.48	.34	1.3	.72	.40	.24	.62	.07
11	.73	.89	.73	.70	.42	.36	1.3	.66	.38	.23	.21	.07
12	.70	.82	.69	.65	.41	.40	1.3	.60	.34	.29	.19	.07
13	.67	.82	.66	.60	.40	.45	1.3	.59	.38	.24	.27	.07
14	.64	.85	.62	.55	.39	.70	1.4	.58	.49	.21	.31	.06
15	.64	.85	.59	.52	.38	.80	2.0	.59	.36	.20	.21	.32
16	.62	.85	.59	.50	.38	.72	3.0	.59	.36	.19	.18	.15
17	.59	1.2	.58	.48	.38	.72	4.5	.54	.68	.18	.15	.07
18	.70	1.1	.58	.47	.38	.81	5.0	.52	.40	.16	.13	.07
19	1.3	.88	.56	.45	.38	1.2	3.7	.73	.34	.21	.13	.05
20	.66	.98	.55	.43	.38	1.3	3.0	.76	.64	.27	.19	.10
21	.58	1.7	.58	.42	.38	1.4	2.6	.54	.40	.20	.13	.20
22	.58	1.2	.64	.41	.37	1.3	2.0	.49	.34	.16	.12	.15
23	.58	1.1	.64	.40	.36	1.3	1.8	.47	.96	.15	.12	.23
24	2.3	.99	.63	.39	.36	1.6	1.6	.62	.37	.13	.14	.19
25	.95	.96	.62	.39	.36	2.2	1.7	.52	.32	.13	.18	.13
26	1.1	.92	.61	.38	.35	3.3	1.4	.44	.32	.12	.14	.12
27	5.1	.99	.60	.37	.35	3.0	1.2	.40	.24	.11	.11	.27
28	5.2	.96	.60	.37	.34	2.5	1.2	.38	.19	.92	.13	.20
29	3.4	.92	.62	.37	---	2.2	1.1	.42	2.1	.50	.11	.15
30	2.7	.85	.61	.37	---	2.1	1.0	.42	1.0	.21	.10	.13
31	2.2	---	.60	.37	---	2.6	---	.38	---	.21	.09	---
TOTAL	41.13	32.28	21.82	18.12	14.70	34.22	65.1	19.30	16.28	8.47	5.91	3.84
MEAN	1.33	1.08	.70	.58	.53	1.10	2.17	.62	.54	.27	.19	.13
MAX	5.2	1.7	1.3	1.3	1.5	3.3	5.0	.95	2.1	.92	.62	.32
MIN	.58	.82	.55	.37	.34	.32	1.0	.38	.19	.11	.09	.05
CFSM	2.29	1.86	1.21	1.00	.91	1.90	3.74	1.07	.93	.47	.33	.22
IN.	2.63	2.07	1.40	1.16	.94	2.19	4.17	1.24	1.04	.54	.38	.25

WTR YR 1982 TOTAL 281.17 MEAN .77 MAX 5.2 MIN .05 CFSM 1.33 IN 18.00

CONNECTICUT RIVER BASIN

01140570 LAKE MOREY TRIBUTARY 6 NEAR FAIRLEE, VT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO NOVEMBER 1982
MEAN VALUES

DAY	OCT	NOV
1	.12	.14
2	.11	.26
3	.11	.16
4	.10	.15
5	.10	.76
6	.10	.39
7	.10	.24
8	.98	.18
9	.28	.20
10	.13	.21
11	.10	.21
12	.15	.19
13	.18	.72
14	.21	.24
15	.35	.18
16	.18	.16
17	.16	.16
18	.15	.13
19	.13	.13
20	.13	.13
21	.13	.13
22	.12	.28
23	.12	.60
24	.12	.28
25	.11	.18
26	.12	.23
27	.11	.26
28	.11	.24
29	.11	.38
30	.11	.44
31	.11	---
TOTAL	5.14	7.96
MEAN	.17	.27
MAX	.98	.76
MIN	.10	.13
CFSM	.29	.47
IN.	.33	.51

01140575 LAKE MOREY TRIBUTARY 5 NEAR FAIRLEE, VT

LOCATION.--Lat 43°56'10", long 72°08'29", Orange County, Hydrologic Unit 01080103, on right bank 25 ft downstream from culvert on perimeter road at northwest corner of Lake Morey, 700 ft to the west of northbound road to Bradford, 700 ft upstream from Lake Morey and 1.9 mi north of Fairlee center.

DRAINAGE AREA.--0.37 mi^2.

PERIOD OF RECORD.--Discharge: May 1981 to November 1982 (discontinued).
Water-quality records: January 1981 to November 1982 (discontinued).

GAGE.--Water-stage recorder and Parshall flume with removable V-notch sharp crested weir. Altitude of gage is 445 ft from topographic map.

REMARKS.--Records excellent except those for winter period and period of no gage height record Feb. 1 to Apr. 27, 1982, which are good.

EXTREMES.--Maximum and minimum discharges for winter years 1981-83 are contained in the following table.

	Maximum			Minimum	
Water Year	Date	Discharge (ft^3/s)	Gage height (ft)	Date	Discharge (ft^3/s)
†1981	Sept. 23, 1981	4.1	1.20	No flow for part of July 25.	
1982	Apr. 18, 1982	12	--	No flow Sept. 7-14.	
‡1983	Nov. 5, 1982	2.0	.92	No flow for part of Oct. 4.	

† For period May to September 1981.
‡ For period October to November 1982.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1981
MEAN VALUES

DAY	MAY	JUN	JUL	AUG	SEP
1	.78	.39	.08	.04	.03
2	.76	.35	.07	.03	.03
3	.67	.32	.07	.03	.03
4	.64	.37	.08	.03	.03
5	.59	.32	.15	.06	.03
6	.56	.30	.11	.05	.02
7	.54	.32	.07	.04	.03
8	.49	.28	.06	.04	.02
9	.46	.37	.12	.37	.20
10	.44	.30	.07	.20	.16
11	.46	.30	.05	.12	.06
12	.67	.30	.04	.09	.04
13	1.2	.28	.17	.06	.03
14	.78	.24	.08	.05	.03
15	.70	.24	.05	.12	.04
16	1.2	.22	.04	.37	.03
17	1.1	.24	.04	.11	.03
18	.90	.18	.04	.06	.03
19	.78	.16	.04	.05	.06
20	.70	.20	.10	.05	.04
21	.64	.19	.12	.04	.03
22	.59	.20	.09	.04	.50
23	.54	.17	.05	.04	2.3
24	.49	.15	.04	.05	1.8
25	.44	.22	.03	.04	1.2
26	.41	.17	.03	.04	.78
27	.39	.15	.10	.05	1.2
28	.39	.12	.04	.04	1.6
29	.39	.11	.26	.04	1.0
30	.37	.09	.08	.04	.76
31	.54	---	.04	.04	---
TOTAL	19.61	7.25	2.41	2.43	12.14
MEAN	.63	.24	.078	.078	.40
MAX	1.2	.39	.26	.37	2.3
MIN	.37	.09	.03	.03	.02
CFSM	1.70	.65	.21	.21	1.08
IN.	1.97	.73	.24	.24	1.22

01140575 LAKE MOREY TRIBUTARY 5 NEAR FAIRLEE, VT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	1.6	.52	.37	.23	.26	2.9	.86	.18	.31	.05	.01
2	.57	1.4	.68	.37	.25	.26	2.9	.79	.38	.29	.04	.02
3	.91	1.2	.63	.36	.30	.26	2.6	.74	.22	.27	.04	.03
4	.68	1.1	.60	.36	.45	.26	2.5	.66	.20	.23	.03	.01
5	.57	.97	.57	.40	.90	.26	2.1	.59	.21	.21	.03	.01
6	.57	1.1	.57	.90	1.0	.26	1.9	.50	.39	.19	.03	.01
7	.60	.97	.54	.80	.80	.26	1.7	.47	.30	.17	.03	.00
8	.54	.85	.52	.70	.60	.26	1.5	.45	.25	.15	.07	.00
9	.49	.79	.52	.60	.45	.26	1.4	.47	.22	.13	.09	.00
10	.44	.73	.49	.52	.37	.26	1.3	.42	.21	.12	.10	.00
11	.42	.71	.49	.47	.33	.26	1.4	.41	.19	.11	.03	.00
12	.38	.65	.47	.42	.32	.26	1.4	.40	.18	.12	.03	.00
13	.38	.63	.47	.39	.32	.28	1.3	.38	.19	.09	.05	.00
14	.35	.60	.44	.36	.32	.40	1.8	.36	.20	.08	.05	.00
15	.35	.60	.44	.34	.31	.45	2.5	.34	.17	.07	.03	.04
16	.35	.57	.47	.33	.31	.39	4.0	.33	.17	.06	.02	.03
17	.31	.71	.40	.32	.31	.42	6.0	.31	.24	.05	.02	.02
18	.44	.71	.40	.31	.30	.46	8.0	.28	.17	.03	.02	.02
19	.65	.68	.40	.30	.30	.57	4.0	.33	.16	.06	.02	.01
20	.49	.68	.35	.28	.29	.67	3.0	.31	.21	.07	.02	.01
21	.47	.88	.39	.27	.29	.72	2.8	.27	.17	.08	.02	.02
22	.44	.85	.42	.27	.29	.73	1.7	.27	.14	.04	.01	.01
23	.60	.76	.42	.26	.28	.74	1.5	.26	.28	.03	.02	.03
24	1.1	.71	.41	.26	.28	.84	1.3	.28	.19	.02	.02	.02
25	.76	.68	.40	.26	.27	1.2	1.2	.25	.17	.02	.03	.01
26	.85	.63	.40	.25	.26	2.2	1.2	.23	.17	.02	.02	.01
27	3.6	.65	.39	.25	.26	2.3	1.4	.21	.15	.04	.01	.03
28	5.2	.63	.39	.24	.26	2.2	1.2	.20	.14	.17	.01	.02
29	3.7	.60	.39	.24	---	2.0	.99	.21	.59	.10	.01	.02
30	2.4	.57	.38	.24	---	1.6	.94	.20	.38	.04	.01	.01
31	1.8	---	.37	.24	---	1.8	---	.19	---	.05	.01	---
TOTAL	31.04	24.21	14.33	11.68	10.65	23.09	68.43	11.97	6.82	3.42	.97	.40
MEAN	1.00	.81	.46	.38	.38	.74	2.28	.39	.23	.11	.031	.013
MAX	5.2	1.6	.68	.90	1.0	2.3	8.0	.86	.59	.31	.10	.04
MIN	.31	.57	.35	.24	.23	.26	.94	.19	.14	.02	.01	.00
CFSM	2.70	2.19	1.24	1.03	1.03	2.00	6.16	1.05	.62	.30	.08	.04
IN.	3.11	2.43	1.44	1.17	1.07	2.32	6.86	1.20	.68	.34	.10	.04

WTR YR 1982 TOTAL 207.01 MEAN .57 MAX 8.0 MIN .00 CFSM 1.54 IN 20.76

01140575 LAKE MOREY TRIBUTARY 5 NEAR FAIRLEE, VT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO NOVEMBER 1982
MEAN VALUES

DAY	OCT	NOV
1	.01	.02
2	.01	.03
3	.01	.02
4	.01	.03
5	.01	.62
6	.01	.07
7	.01	.04
8	.08	.04
9	.05	.03
10	.03	.03
11	.02	.03
12	.02	.03
13	.02	.14
14	.05	.04
15	.04	.04
16	.03	.04
17	.03	.04
18	.02	.04
19	.02	.04
20	.02	.04
21	.02	.05
22	.02	.08
23	.02	.12
24	.02	.08
25	.02	.08
26	.01	.09
27	.01	.09
28	.01	.09
29	.01	.13
30	.01	.13
31	.01	---
TOTAL	.66	2.35
MEAN	.021	.078
MAX	.08	.62
MIN	.01	.02
CFSM	.06	.21
IN.	.07	.24

01140580 BIG BROOK (LAKE MOREY TRIBUTARY 4) NEAR FAIRLEE, VT

LOCATION.--Lat 43°56'05", long 72°08'33" , Orange County, Hydrologic Unit 01080103, on left bank 400 ft downstream from bridge at perimeter road on northwest side of Lake Morey, 400 ft south of Camp Lanakila, 0.11 mi upstream from Lake Morey and 1.8 mi north of Fairlee center.

DRAINAGE AREA.--1.42 mi^2.

PERIOD OF RECORD.--Discharge: May 1981 to November 1982 (discontinued).
Water-quality records: January 1981 to November 1982 (discontinued).

GAGE.--Water-stage recorder and Parshall flume with removable V-notch sharp crested weir. Altitude of gage is 430 ft from topographic map.

REMARKS.--Records excellent except those for winter period, which are good.

EXTREMES.--Maximum and minimum discharges for water years 1981-83 are contained in the following table.

	Maximum			Minimum	
Water Year	Date	Discharge (ft^3/s)	Gage height (ft)	Date	Discharge (ft^3/s)
†1981	Sept. 23, 1981	24.8	1.59	Sept. 7, 8, 1981	0.02
1982	Oct. 28, 1981	41.5	2.2	No flow part of each day	Sept. 12, 13.
‡1983	Nov. 5, 1982	5.6	1.38	Oct. 3, 1982	.01

† For period May to September 1981.
‡ For period October to November 1982.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1981
MEAN VALUES

DAY	MAY	JUN	JUL	AUG	SEP
1	2.5	1.1	.20	.16	.09
2	4.5	1.0	.18	.12	.07
3	3.0	.90	.15	.10	.05
4	1.8	1.1	.15	.09	.05
5	1.8	.95	.38	.15	.04
6	1.7	.85	.36	.16	.04
7	1.8	.75	.21	.11	.03
8	1.7	.72	.15	.10	.03
9	1.6	1.1	.21	.16	.57
10	1.6	1.0	.27	.57	.21
11	1.5	.90	.14	.29	.33
12	2.9	.84	.11	.38	.18
13	8.5	.90	.29	.21	.13
14	4.2	.78	.26	.16	.11
15	3.4	.72	.16	.29	.15
16	6.6	.65	.12	2.0	.10
17	5.1	.54	.08	.70	.08
18	3.9	.44	.08	.44	.08
19	2.2	.34	.08	.33	.16
20	2.7	.42	.14	.27	.21
21	2.3	.89	.42	.23	.12
22	2.0	.62	.27	.21	6.5
23	1.8	.51	.14	.19	14
24	1.6	.38	.09	.18	8.2
25	1.4	.47	.07	.18	5.0
26	1.3	.59	.08	.14	3.3
27	1.2	.42	.26	.14	5.5
28	1.2	.34	.12	.14	8.0
29	1.1	.27	.76	.12	4.7
30	1.2	.23	.44	.11	3.5
31	1.5	---	.23	.10	---
TOTAL	79.6	20.72	6.60	8.53	61.53
MEAN	2.57	.69	.21	.28	2.05
MAX	8.5	1.1	.76	2.0	14
MIN	1.1	.23	.07	.09	.03
CFSM	1.81	.49	.15	.20	1.44
IN.	2.08	.54	.17	.22	1.61

01140580 BIG BROOK (LAKE MOREY TRIBUTARY 4) NEAR FAIRLEE, VT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	4.9	1.7	1.3	.70	.78	14	3.2	.51	1.3	.15	.02
2	2.8	4.2	2.0	1.2	.70	.77	9.8	2.6	1.6	.99	.12	.02
3	4.6	3.6	2.2	1.2	1.5	.76	8.2	2.4	.89	1.1	.15	.07
4	3.2	3.1	2.4	1.2	3.3	.76	8.7	1.9	.67	.79	.09	.03
5	2.8	2.8	2.2	1.9	3.4	.77	6.0	2.3	.64	.67	.09	.02
6	2.6	3.6	2.1	2.1	2.8	.78	6.0	2.2	2.0	.59	.07	.01
7	2.9	3.1	2.0	1.9	2.5	.79	4.7	2.0	1.8	.51	.06	.01
8	2.4	2.6	1.8	1.7	2.1	.81	4.4	1.9	1.1	.44	.08	.01
9	2.1	2.5	1.7	1.6	1.7	.84	4.2	2.1	.92	.38	.31	.01
10	1.8	2.5	1.7	1.4	1.4	.87	4.0	1.9	.79	.34	.40	.01
11	1.6	2.4	1.7	1.3	1.1	.90	4.2	1.7	.70	.29	.16	.01
12	1.5	2.2	1.6	1.1	1.1	.92	4.5	1.6	.62	.31	.11	.01
13	1.4	1.8	1.6	.90	1.0	1.1	4.4	1.5	.62	.27	.14	.01
14	1.4	1.7	1.5	.88	1.0	1.5	5.8	1.3	.76	.21	.16	.01
15	1.3	1.6	1.5	.86	1.0	1.8	7.2	1.2	.62	.19	.14	.06
16	1.1	1.5	1.5	.86	.98	1.9	12	1.2	.59	.18	.10	.11
17	1.1	2.8	1.4	.86	.98	1.6	23	1.1	.92	.16	.07	.05
18	1.5	2.7	1.4	.86	.98	1.7	30	.97	.73	.14	.10	.04
19	3.3	2.6	1.4	.85	.98	2.1	15	1.2	.59	.18	.08	.03
20	2.1	2.6	1.3	.85	.97	2.5	15	1.3	.99	.23	.08	.03
21	1.8	2.6	1.3	.85	.96	2.6	14	.95	.70	.24	.05	.04
22	1.7	2.6	1.3	.84	.93	2.4	9.5	.89	.62	.14	.04	.03
23	2.1	2.6	1.3	.82	.90	2.4	7.0	.82	1.4	.09	.04	.05
24	4.8	2.5	1.3	.80	.88	2.8	6.6	.92	.92	.07	.04	.05
25	3.2	2.4	1.3	.79	.86	4.1	6.0	.85	.76	.07	.06	.03
26	3.6	2.3	1.3	.77	.85	9.7	5.5	.73	.73	.06	.07	.03
27	18	2.2	1.3	.76	.83	7.7	6.3	.67	.62	.06	.04	.08
28	22	2.0	1.3	.74	.80	5.4	4.7	.59	.51	.38	.05	.08
29	12	1.9	1.3	.73	---	5.3	4.1	.59	2.7	.42	.04	.04
30	7.8	1.7	1.3	.72	---	4.2	3.7	.59	2.3	.18	.03	.03
31	6.0	---	1.3	.71	---	6.6	---	.54	---	.14	.02	---
TOTAL	127.4	77.6	49.0	33.35	37.20	77.15	258.5	43.71	29.32	11.12	3.14	1.03
MEAN	4.11	2.59	1.58	1.08	1.33	2.49	8.62	1.41	.98	.36	.10	.034
MAX	22	4.9	2.4	2.1	3.4	9.7	30	3.2	2.7	1.3	.40	.11
MIN	1.1	1.5	1.3	.71	.70	.76	3.7	.54	.51	.06	.02	.01
CFSM	2.89	1.82	1.11	.76	.94	1.75	6.07	.99	.69	.25	.07	.02
IN.	3.34	2.03	1.28	.87	.97	2.02	6.77	1.14	.77	.29	.08	.03

WTR YR 1982 TOTAL 748.52 MEAN 2.05 MAX 30 MIN .01 CFSM 1.44 IN 19.60

01140580 BIG BROOK (LAKE MOREY TRIBUTARY 4) NEAR FAIRLEE, VT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO NOVEMBER 1982
MEAN VALUES

DAY	OCT	NOV
1	.02	.04
2	.02	.07
3	.01	.07
4	.01	.06
5	.02	2.6
6	.02	.76
7	.02	.50
8	.27	.41
9	.20	.32
10	.14	.21
11	.08	.20
12	.07	.20
13	.05	.44
14	.07	.47
15	.06	.40
16	.05	.34
17	.04	.31
18	.04	.29
19	.04	.27
20	.03	.26
21	.04	.26
22	.05	.34
23	.04	.82
24	.04	.62
25	.03	.49
26	.03	.47
27	.03	.44
28	.03	.38
29	.03	.59
30	.03	.76
31	.03	---
TOTAL	1.64	13.39
MEAN	.053	.45
MAX	.27	2.6
MIN	.01	.04
CFSM	.04	.32
IN.	.04	.35

01140590 GLENN FALLS BROOK (LAKE MOREY TRIBUTARY 3) NEAR FAIRLEE, VT

LOCATION.--Lat 43°55'13", long 72°09'37", Orange County, Hydrologic Unit 01080103, on left bank 400 ft upstream from bridge at perimeter road on west side of Lake Morey, 200 ft south of State boat ramp, 0.15 mi upstream from the mouth, and 1.3 mi northwest of Fairlee center.

DRAINAGE AREA.--1.64 mi^2.

PERIOD OF RECORD.--Discharge: May 1981 to November 1982 (discontinued).
Water-quality records: March 1981 to November 1982 (discontinued).

GAGE.--Water-stage recorder and Parshall flume with removable V-notch sharp crested weir. Altitude of gage is 470 ft from topographic map.

REMARKS.--Records excellent except those for period of no gage height record May 1-18, 1982, which are good.

EXTREMES.--Maximum and minimum discharges for water years 1981-83 are contained by in the following table.

	Maximum			Minimum	
Water Year	Date	Discharge (ft^3/s)	Gage height (ft)	Date	Discharge (ft^3/s)
†1981	Sept. 23, 1981	19.4	1.36	July 26, 1981	0.05
1982	Apr. 18, 1982	48.2	2.43	No flow part of each day	Sept. 14, 15.
‡1983	Nov. 5, 1982	4.4	1.25	Oct. 2, 3, 1982	.05

† For period May to September 1981.
‡ For period October to November 1982.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1981
MEAN VALUES

DAY	MAY	JUN	JUL	AUG	SEP
1	2.7	1.7	.20	.16	.15
2	5.0	1.4	.19	.12	.13
3	3.5	1.3	.18	.10	.12
4	2.0	1.5	.18	.08	.11
5	1.5	1.3	.38	.21	.10
6	1.3	1.1	.36	.23	.09
7	1.2	1.0	.23	.14	.08
8	1.1	.97	.16	.12	.08
9	1.1	1.4	.18	.15	.76
10	2.3	1.1	.21	.82	.38
11	3.0	1.0	.13	.44	.44
12	4.5	.97	.10	.64	.31
13	6.0	.97	.23	.38	.23
14	4.0	.84	.24	.26	.19
15	3.5	.84	.16	.36	.18
16	8.0	.65	.11	2.0	.15
17	6.2	.84	.08	1.1	.14
18	5.4	.53	.08	.73	.13
19	4.7	.40	.08	.54	.21
20	4.0	.44	.12	.44	.24
21	3.7	.73	.40	.36	.18
22	3.2	.62	.29	.33	5.2
23	3.0	.54	.15	.29	13
24	2.5	.40	.10	.27	8.8
25	2.3	.44	.07	.26	5.7
26	2.0	.54	.06	.23	4.2
27	1.9	.40	.23	.21	5.1
28	1.8	.33	.11	.20	8.8
29	1.6	.27	.70	.18	5.7
30	1.6	.24	.47	.16	4.4
31	2.2	---	.24	.15	---
TOTAL	96.8	24.76	6.42	11.66	65.30
MEAN	3.12	.83	.21	.38	2.18
MAX	8.0	1.7	.70	2.0	13
MIN	1.1	.24	.06	.08	.08
CFSM	1.90	.51	.13	.23	1.33
IN.	2.19	.56	.15	.26	1.48

01140590 GLENN FALLS BROOK (LAKE MOREY TRIBUTARY 3) NEAR FAIRLEE, VT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	6.7	2.4	1.3	.92	.86	17	3.9	.70	1.9	.24	.05
2	3.3	5.8	2.8	1.3	.90	.85	13	3.4	1.7	1.5	.21	.05
3	4.5	5.1	2.8	1.3	1.5	.84	11	3.1	1.3	1.5	.23	.12
4	3.8	4.6	2.6	1.3	2.5	.82	11	2.8	.96	1.3	.18	.06
5	3.3	4.2	2.5	1.9	3.3	.82	8.7	2.7	.89	1.2	.18	.04
6	3.1	4.6	2.5	2.6	3.4	.84	6.8	2.5	2.2	1.0	.15	.04
7	3.2	4.3	2.4	2.4	3.0	.86	5.4	2.3	2.4	.89	.13	.03
8	2.9	3.7	2.3	2.1	2.5	.88	4.8	2.2	1.7	.79	.18	.03
9	2.7	3.5	2.2	1.7	1.9	.90	4.6	2.3	1.3	.70	.47	.03
10	2.5	3.2	2.1	1.4	1.6	.92	4.5	2.2	1.2	.62	.59	.02
11	2.3	3.0	2.1	1.3	1.3	.94	4.6	2.0	1.0	.56	.29	.02
12	2.2	2.7	2.0	1.1	1.2	.98	4.8	1.9	.92	.56	.21	.01
13	2.0	2.3	2.0	1.1	1.2	1.2	5.2	1.7	.89	.52	.21	.01
14	1.9	2.1	1.9	1.1	1.2	1.8	6.1	1.6	1.0	.44	.23	.01
15	1.8	2.0	1.9	1.1	1.2	2.1	7.6	1.6	.89	.40	.19	.11
16	1.7	1.9	1.9	1.0	1.1	2.0	13	1.5	.85	.36	.15	.16
17	1.6	2.3	1.8	1.0	1.1	2.0	28	1.5	1.2	.33	.13	.09
18	1.8	2.4	1.7	.98	1.1	2.0	36	1.4	.99	.29	.11	.07
19	3.5	2.3	1.7	.97	1.1	2.3	19	1.5	.85	.38	.10	.05
20	2.7	2.7	1.6	.96	1.1	2.8	18	1.5	1.2	.52	.13	.05
21	2.3	4.1	1.6	.96	1.1	3.0	18	1.4	.92	.36	.10	.08
22	2.2	4.0	1.6	.95	1.1	3.0	11	1.3	.85	.29	.08	.06
23	2.7	3.6	1.6	.95	1.0	3.0	8.9	1.2	1.4	.26	.08	.08
24	4.7	3.3	1.5	.95	1.0	3.0	8.7	1.3	1.2	.21	.09	.10
25	3.9	3.1	1.5	1.0	.96	4.7	8.1	1.2	.99	.20	.12	.07
26	4.2	2.9	1.5	.96	.92	12	7.0	1.1	.96	.18	.13	.05
27	18	2.9	1.4	.96	.88	10	7.9	1.0	.85	.15	.08	.12
28	24	2.8	1.4	.96	.86	8.0	6.2	.98	.73	.54	.08	.13
29	15	2.7	1.4	.95	---	6.5	5.3	.79	2.3	.64	.07	.09
30	10	2.5	1.4	.94	---	5.8	4.6	.79	3.2	.34	.06	.08
31	7.8	---	1.3	.93	---	7.8	---	.73	---	.26	.05	---
TOTAL	149.3	101.3	59.4	38.42	40.94	93.51	314.8	55.39	37.54	19.19	5.25	1.91
MEAN	4.82	3.38	1.92	1.24	1.46	3.02	10.5	1.79	1.25	.62	.17	.064
MAX	24	6.7	2.8	2.6	3.4	12	36	3.9	3.2	1.9	.59	.16
MIN	1.6	1.9	1.3	.93	.86	.82	4.5	.73	.70	.15	.05	.01
CFSM	2.94	2.06	1.17	.76	.89	1.84	6.40	1.09	.76	.38	.10	.04
IN.	3.38	2.30	1.35	.87	.93	2.12	7.14	1.26	.85	.44	.12	.04

WTR YR 1982 TOTAL 916.95 MEAN 2.51 MAX 36 MIN .01 CFSM 1.53 IN 20.79

01140590 GLENN FALLS BROOK (LAKE MOREY TRIBUTARY 3) NEAR FAIRLEE, VT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO NOVEMBER 1982
MEAN VALUES

DAY	OCT	NOV
1	.06	.07
2	.05	.11
3	.05	.11
4	.06	.10
5	.08	2.5
6	.08	1.1
7	.06	.73
8	.40	.57
9	.38	.50
10	.27	.44
11	.18	.42
12	.14	.44
13	.12	1.0
14	.13	1.1
15	.12	.96
16	.13	.85
17	.11	.79
18	.08	.76
19	.09	.62
20	.08	.47
21	.08	.44
22	.08	.52
23	.07	.99
24	.07	.96
25	.07	.82
26	.07	.79
27	.07	.76
28	.07	.76
29	.06	.79
30	.06	.96
31	.06	---
TOTAL	3.43	21.43
MEAN	.11	.71
MAX	.40	2.5
MIN	.05	.07
CFSM	.07	.43
IN.	.08	.49

01140600 LAKE MOREY OUTLET AT FAIRLEE, VT

LOCATION.--Lat 43°54'40", long 72°09'30", Orange County, Hydrologic Unit 01080103, on left bank 250 ft downstream from outlet dam at the southern end of Lake Morey, 25 ft upstream from culvert at cross road between east and west perimeter lake road, 200 ft east of west perimeter road and 1,400 ft west of east perimeter road, 2.0 mi upstream from mouth and 0.8 mi west of Fairlee center.

DRAINAGE AREA.--8.2 mi^2.

PERIOD OF RECORD.--Discharge: May 1981 to November 1982 (discontinued).
Water-quality records: January 1981 to November 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 415 ft from topographic map.

REMARKS.--Records good.

EXTREMES.--Maximum and minimum discharges for water years 1981-83 are contained in the following table.

	Maximum			Minimum daily	
Water Year	Date	Discharge (ft^3/s)	Gage height (ft)	Date	Discharge (ft^3/s)
†1981	May 19, 1981	26.4	8.28	Sept. 18, 1981	0.28
1982	Apr. 21, 1982	65.7	9.19	Sept. 9, 1982	.16
‡1983	Nov. 5, 1982	17.0	7.99	Oct. 25, 1982	.01

† For period May to September 1981.
‡ For period October to November 1982.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1981
MEAN VALUES

DAY	MAY	JUN	JUL	AUG	SEP
1	18	9.6	2.0	2.2	.45
2	17	7.9	1.9	1.8	.73
3	16	6.7	1.8	1.6	.58
4	15	7.3	1.8	1.5	.58
5	14	6.9	2.0	1.4	.44
6	14	6.5	2.3	1.4	.38
7	13	6.5	2.2	2.3	.98
8	12	5.1	2.2	1.8	.98
9	11	6.3	2.3	1.7	1.2
10	10	6.3	2.4	3.8	.97
11	10	5.6	2.2	3.3	1.4
12	11	5.6	2.0	2.8	1.3
13	15	5.6	1.9	2.4	1.1
14	20	5.1	2.3	1.8	.72
15	18	4.5	2.5	1.8	.88
16	13	4.0	1.2	4.9	.72
17	15	4.7	.80	5.1	.35
18	24	3.8	.68	4.0	.28
19	22	3.4	.60	3.1	.45
20	21	3.4	.56	2.5	.72
21	18	4.3	.56	1.7	.45
22	17	4.5	.90	1.8	3.8
23	16	4.3	1.3	1.8	15
24	13	3.4	1.1	2.3	21
25	11	3.2	.80	1.7	22
26	10	3.8	.51	1.3	19
27	9.6	3.5	1.6	.88	19
28	9.1	2.8	.72	.88	25
29	8.6	2.4	2.2	.58	24
30	8.2	2.3	4.0	.58	22
31	11	---	3.0	.45	--
TOTAL	440.5	149.3	52.33	65.17	186.46
MEAN	14.2	4.98	1.69	2.10	6.22
MAX	24	9.6	4.0	5.1	25
MIN	8.2	2.3	.51	.45	.28

01140600 LAKE MOREY OUTLET AT FAIRLEE, VT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	45	12	9.8	7.0	6.3	32	34	3.8	14	1.8	.23
2	18	42	14	9.6	7.0	6.2	37	31	6.6	12	1.7	.23
3	19	39	13	8.6	10	6.0	38	29	7.0	11	1.4	.21
4	17	30	13	8.4	14	5.7	40	27	5.9	10	1.4	.21
5	14	30	13	12	18	5.6	39	24	5.4	9.6	1.6	.21
6	14	33	15	14	19	5.3	39	22	7.7	7.8	1.0	.25
7	14	39	14	15	20	5.0	39	20	9.6	7.2	.86	.23
8	13	37	14	14	12	9.0	37	18	8.6	6.8	.96	.19
9	14	35	14	12	8.8	8.8	35	18	7.6	6.1	1.2	.16
10	13	31	13	10	8.0	8.4	33	4.8	7.4	5.5	1.9	.28
11	11	27	12	9.5	9.5	7.5	32	.40	6.7	4.7	1.9	.32
12	9.3	25	11	8.9	8.8	7.7	33	.44	6.0	4.6	1.7	.28
13	7.5	23	11	8.2	8.5	7.5	32	.51	5.2	4.6	1.5	.23
14	7.5	21	9.8	7.8	8.2	8.6	31	.58	5.5	3.9	1.4	.19
15	7.3	19	9.3	7.6	8.0	8.9	31	.65	5.2	3.5	1.7	.21
16	7.5	18	11	7.4	7.8	9.1	32	.73	5.1	3.5	1.5	.18
17	6.9	18	10	7.2	7.6	9.8	36	.98	6.4	3.1	1.5	.23
18	5.8	18	9.3	7.2	7.5	10	50	1.1	6.6	2.8	.99	.18
19	12	17	9.1	7.2	7.4	10	55	1.6	6.1	2.6	.79	.18
20	9.6	17	8.9	7.2	7.2	11	60	3.3	6.8	3.0	.82	.18
21	9.1	18	9.1	7.1	7.0	12	62	4.5	6.3	2.3	.90	.21
22	8.4	18	9.3	7.1	6.9	14	60	3.1	5.8	1.5	.25	.23
23	10	18	8.9	7.1	6.8	14	56	2.8	7.5	1.3	.30	.23
24	15	17	8.4	7.1	6.8	14	53	3.3	7.9	.87	.39	.26
25	16	16	9.3	7.1	6.7	15	50	4.1	6.9	.81	.65	.28
26	17	15	9.1	7.0	6.6	20	47	4.2	6.6	.94	.23	.28
27	29	15	8.6	7.0	6.5	26	45	4.2	6.3	.48	.25	.31
28	41	14	11	7.0	6.4	28	41	4.0	5.9	.94	.25	.31
29	51	14	11	7.0	---	28	38	4.0	10	1.9	.21	.31
30	52	13	11	7.0	---	28	36	4.1	15	1.8	.28	.31
31	49	---	10	7.0	---	29	---	3.9	---	1.8	.25	---
TOTAL	537.9	727	342.1	269.1	258.0	384.4	1249	280.29	207.4	140.94	31.58	7.11
MEAN	17.4	24.2	11.0	8.68	9.21	12.4	41.6	9.04	6.91	4.55	1.02	.24
MAX	52	45	15	15	20	29	62	34	15	14	1.9	.32
MIN	5.8	13	8.4	7.0	6.4	5.0	31	.40	3.8	.48	.21	.16

WTR YR 1982 TOTAL 4434.82 MEAN 12.2 MAX 62 MIN .16

01140600 LAKE MOREY OUTLET AT FAIRLEE, VT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO NOVEMBER 1982
MEAN VALUES

DAY	OCT	NOV
1	.31	5.2
2	.28	5.2
3	.14	5.2
4	.18	5.4
5	.14	14
6	.13	14
7	.18	12
8	.35	10
9	.28	9.0
10	.16	7.6
11	.18	6.0
12	.21	5.5
13	.21	7.1
14	.21	5.8
15	.19	5.4
16	.16	4.7
17	.14	4.2
18	.07	3.9
19	.07	3.6
20	.06	3.2
21	.09	2.8
22	.08	3.2
23	.03	4.3
24	.03	4.6
25	.01	3.9
26	.03	3.7
27	.02	4.2
28	.02	3.4
29	.03	3.8
30	.03	4.0
31	2.4	---
TOTAL	6.31	174.9
MEAN	.20	5.83
MAX	2.4	14
MIN	.01	2.8

01141500 OMPOMPANOOSUC RIVER AT UNION VILLAGE, VT

LOCATION.--Lat 43°47'23", long 72°15'19", Orange County, Hydrologic Unit 01080103, on right bank 100 ft upstream from covered bridge at Union Village, 0.2 mi downstream from Avery Brook, 0.3 mi downstream from Union Village Reservoir, and 3.8 mi upstream from mouth.

DRAINAGE AREA.--130 mi^2.

PERIOD OF RECORD.--Discharge: September 1940 to current year.
Water-quality records: Water years 1955, 1957-58.

GAGE.--Water-stage recorder. Altitude of gage is 435 ft, from topographic map.

REMARKS.--Records good except those for winter period which are fair and period of no gage-height record, Dec. 7 to Jan. 13, which are poor. Flow regulated by Union Village Reservoir (Reservoirs in Connecticut River basin) since October 1949. Some regulation by Lake Fairlee. Several observations of water temperatures and specific conductance were made during the year.

AVERAGE DISCHARGE.--43 years, 194 ft^3/s, 20.27 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft^3/s June 3, 1947, gage height, 9.65 ft, from rating curve extended above 2,400 ft^3/s on basis of slope-area measurement of peak flow; minimum, 1.7 ft^3/s Oct. 14, 1949; minimum daily, 2.0 ft^3/s Oct. 20, 1949. Maximum discharge since construction of Union Village Reservoir in 1949, 2,350 ft^3/s Apr. 20, 1950, gage height, 7.62 ft; maximum gage height, 7.68 ft Apr. 7, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, about 14.5 ft in November 1927, from information by local resident (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,760 ft^3/s Mar. 22, gage height, 7.20 ft; minimum, 15 ft^3/s Oct. 6, 7; minimum daily, 16 ft^3/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	18	20	150	84	105	86	261	727	536	45	32	100
2	17	23	155	88	96	110	272	1250	412	43	96	64
3	17	31	148	103	300	275	287	1010	349	47	48	50
4	16	26	83	95	713	250	346	1020	415	43	32	42
5	16	258	63	88	400	150	545	631	398	48	29	39
6	16	192	80	64	220	152	495	541	346	58	26	36
7	16	139	87	58	180	202	499	471	524	53	26	33
8	53	89	93	60	155	272	614	699	357	47	24	30
9	81	71	85	55	145	208	680	810	302	42	124	27
10	71	55	46	63	130	189	560	599	266	37	60	26
11	38	46	23	386	125	379	680	560	232	33	48	26
12	29	44	28	352	120	475	978	503	202	30	266	25
13	26	86	33	200	130	463	850	444	175	26	124	25
14	26	96	35	178	115	373	713	405	155	27	76	23
15	27	73	48	74	105	340	627	398	137	25	58	23
16	27	44	53	84	100	408	536	444	121	23	48	22
17	27	32	117	95	98	455	840	363	130	21	43	24
18	25	31	150	94	96	415	605	326	147	20	39	31
19	24	38	117	93	94	520	708	305	155	20	37	27
20	23	44	100	92	92	1100	667	329	103	19	33	25
21	23	42	100	90	90	907	578	324	84	19	30	24
22	22	42	100	89	90	972	563	281	74	24	30	71
23	21	46	100	88	90	805	614	308	65	24	36	51
24	21	101	93	340	90	436	1190	293	58	23	31	36
25	20	139	97	470	90	357	1010	269	67	30	27	31
26	20	127	100	290	90	316	800	240	67	25	26	29
27	20	111	132	190	89	308	676	471	74	22	25	27
28	20	53	175	160	88	296	602	432	67	20	50	26
29	20	40	172	130	---	296	644	349	56	20	40	25
30	20	81	150	120	---	290	658	563	50	20	56	25
31	19	---	100	110	---	250	---	708	---	20	132	---
TOTAL	819	2220	3013	4483	4236	12055	19098	16073	6124	954	1752	1043
MEAN	26.4	74.0	97.2	145	151	389	637	518	204	30.8	56.5	34.8
MAX	81	258	175	470	713	1100	1190	1250	536	58	266	100
MIN	16	20	23	55	88	86	261	240	50	19	24	22
MEAN†	26.4	82.2	94.6	146	151	388	633	520	201	30.5	56.7	34.6
CFSM†	.20	.63	.73	1.12	1.16	2.98	4.87	4.00	1.55	.23	.44	.27
IN†	.23	.71	.84	1.30	1.21	3.44	5.44	4.61	1.73	.27	.50	.30

CAL YR 1982 TOTAL 62879 MEAN 172 MAX 1820 MIN 13 MEAN† 172 CFSM† 1.32 IN† 18.00
WTR YR 1983 TOTAL 71870 MEAN 197 MAX 1250 MIN 16 MEAN† 197 CFSM† 1.52 IN† 20.57

† Adjusted for change in Union Village Reservoir.

01141800 MINK BROOK NEAR ETNA, NH

LOCATION.--Lat 43°42'08", long 72°11'15", Grafton County, Hydrologic Unit 01080104, on left bank 2 mi northeast of Etna and 5 mi east of Hanover.

DRAINAGE AREA.--4.60 mi^2.

PERIOD OF RECORD.--August 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,000 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--21 years, 7.43 ft^3/s, 21.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 560 ft^3/s Aug. 15, 1976, gage height, 3.80 ft, from rating curve extended above 130 ft^3/s on basis of slope-area measurement at gage heights 3.50 ft and 3.75 ft; maximum gage height, 4.28 ft Jan. 9, 1978, backwater from ice; minimum discharge, 0.01 ft^3/s Aug. 11, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges, above base of 55 ft^3/s and maximums (*):

Date	Time	Discharge (ft^3/s)	Gageheight (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 11	0500	98	2.51	Apr. 24	1845	72	2.38
Feb. 3	1130	76	a*3.11	May 3	0345	64	2.33
Mar. 19	2230	106	2.55	Aug. 30	1930	*167	2.79
Apr. 11	1230	104	2.54				

a Ice jam.

Minimum discharge, 0.08 ft^3/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	.90	.34	2.5	5.3	2.8	3.0	10	28	18	.30	10	6.0
2	1.1	.42	2.2	2.3	2.6	20	11	53	14	.42	5.0	2.7
3	1.2	.47	1.8	2.0	50	13	12	43	11	.47	1.3	1.6
4	1.2	.47	1.7	1.7	27	8.3	11	31	18	.30	.66	1.2
5	1.2	8.7	1.6	1.6	16	6.7	12	23	14	4.1	.53	1.0
6	1.1	2.7	2.0	2.2	11	7.4	17	20	11	3.6	.42	.82
7	1.1	1.6	2.0	1.8	9.5	7.9	18	17	11	2.0	.38	.59
8	6.3	1.2	1.6	1.7	8.0	7.1	29	16	8.3	.90	.30	.47
9	2.7	1.1	1.4	1.4	7.0	6.0	26	31	6.3	.66	.66	.42
10	1.6	.82	2.5	1.4	6.4	15	23	21	5.3	.47	.38	.42
11	.90	.74	2.3	43	5.4	18	72	17	4.7	.42	2.0	.42
12	.59	.74	1.6	8.3	4.8	15	38	14	3.8	.34	10	.38
13	.53	7.1	3.3	6.0	4.3	11	28	13	3.3	.30	3.3	.34
14	.53	3.1	4.4	4.8	4.0	10	24	12	3.6	.24	1.4	.30
15	.59	2.2	6.0	3.7	3.8	13	22	12	3.1	.22	.82	.30
16	.59	1.7	14	3.1	3.5	21	18	15	2.3	.20	.59	.30
17	.53	1.4	14	2.7	3.4	16	20	11	2.2	.16	.47	.38
18	.53	1.2	14	2.4	3.2	15	22	8.7	1.8	.14	.42	.47
19	.53	1.2	4.4	2.2	3.2	50	20	7.9	2.9	.11	.34	.38
20	.42	1.1	3.3	2.1	3.1	59	29	12	1.7	.10	.27	.34
21	.42	1.2	2.3	2.0	3.1	35	24	11	1.1	.30	.20	.30
22	.42	1.4	1.7	2.1	3.1	30	23	8.3	.90	.66	.27	6.3
23	.59	3.8	1.6	3.5	3.0	19	22	13	.66	.27	.38	1.2
24	.59	2.7	1.6	18	3.0	16	34	14	.53	.30	.27	.82
25	.47	2.0	2.9	7.0	3.0	14	45	12	.82	.38	.22	.66
26	.47	1.7	18	4.7	2.9	13	34	9.7	.74	.22	.22	.59
27	.42	1.6	4.7	4.3	2.8	14	27	29	.90	.16	.59	.59
28	.42	2.2	3.9	3.8	2.7	9.7	22	18	.66	.11	2.3	.53
29	.42	2.5	5.0	3.5	---	11	19	15	.53	.13	.74	.42
30	.34	2.9	3.4	3.3	---	21	31	29	.38	.16	15	.42
31	.34	---	8.3	3.0	---	16	---	25	---	.14	15	---
TOTAL	29.04	60.30	140.0	154.9	202.6	521.1	743	589.6	153.52	18.28	74.43	30.66
MEAN	.94	2.01	4.52	5.00	7.24	16.8	24.8	19.0	5.12	.59	2.40	1.02
MAX	6.3	8.7	18	43	50	59	72	53	18	4.1	15	6.3
MIN	.34	.34	1.4	1.4	2.6	3.0	10	7.9	.38	.10	.20	.30
CFSM	.20	.44	.98	1.09	1.57	3.65	5.39	4.13	1.11	.13	.52	.22
IN.	.23	.49	1.13	1.25	1.64	4.21	6.01	4.77	1.24	.15	.60	.25

CAL YR 1982 TOTAL 2537.24 MEAN 6.95 MAX 139 MIN .14 CFSM 1.51 IN 20.51
WTR YR 1983 TOTAL 2717.43 MEAN 7.45 MAX 72 MIN .10 CFSM 1.62 IN 21.97

01142500 AYERS BROOK AT RANDOLPH, VT

LOCATION.--Lat 43°56'04", long 72°39'30", Orange County, Hydrologic Unit 01080105, on right bank 135 ft upstream from bridge on State Highway 12, just north of village limits of Randolph, 0.4 mi upstream from Adams Brook, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--30.5 mi^2.

PERIOD OF RECORD.--July 1939 to September 1975, June 1976 to current year.

REVISED RECORDS.--WDR MA-NH-RI-VT-72-1: 1949(M), 1952(M), 1953(P), 1958(P), 1960(M), 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 630.50 ft Vermont State Department of Highways datum. Prior to Oct. 1, 1964, at site 140 ft downstream at datum 2.25 ft higher and Oct. 1, 1964, to Sept. 30, 1975, at site 140 ft downstream at datum 1.25 ft higher.

REMARKS.--Records good except those for winter period which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--43 years (water years 1940-75, 1977-83), 46.6 ft^3/s, 20.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft^3/s June 30, 1973, gage height, 10.37 ft, present datum, from rating curve extended above 500 ft^3/s on basis of contracted-opening measurement of peak flow; minimum, 0.6 ft^3/s July 27, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1830, about 18 ft, present datum, in November 1927.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 24	2300	496	5.54	May 4	0315	*1050	7.86

Minimum discharge, 3.8 ft^3/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	6.4	7.7	23	22	22	22	56	254	139	18	20	14
2	6.6	10	22	21	21	31	66	287	117	17	16	10
3	6.6	12	19	19	84	54	78	361	105	17	11	8.1
4	6.6	10	18	11	105	39	88	560	117	16	7.9	7.0
5	6.1	31	18	13	41	39	105	297	112	16	6.8	6.6
6	6.1	22	17	15	40	37	163	224	93	24	6.1	6.0
7	6.1	16	17	14	39	49	134	180	119	20	5.5	5.6
8	28	13	16	13	38	50	186	156	87	15	5.1	5.1
9	24	12	13	13	37	46	206	220	75	13	15	5.0
10	19	11	9.7	12	34	67	180	169	67	11	8.9	4.8
11	13	11	13	107	32	110	203	149	59	10	9.0	4.8
12	11	10	13	50	30	84	216	133	55	10	72	4.6
13	10	18	9.2	35	29	66	199	120	50	9.4	30	4.4
14	10	17	9.1	20	28	56	220	110	47	8.1	17	4.1
15	10	14	10	19	27	60	201	101	42	7.7	13	4.0
16	11	13	59	17	26	78	186	128	39	7.7	10	3.8
17	11	12	55	16	25	84	212	97	37	6.4	8.5	6.6
18	10	12	25	15	24	76	208	83	61	5.9	7.8	9.9
19	9.7	12	23	15	24	180	180	77	45	5.5	7.1	6.9
20	9.4	12	22	14	24	450	240	78	38	5.1	6.0	5.9
21	9.1	12	20	14	23	230	214	78	33	4.8	5.2	5.2
22	9.1	12	19	14	24	180	190	70	31	5.4	5.0	13
23	8.6	20	18	30	24	130	176	92	28	5.5	8.0	9.4
24	8.6	21	17	120	22	98	263	92	26	6.4	6.0	7.9
25	8.1	19	18	70	19	86	417	77	31	10	5.2	7.6
26	8.1	16	48	40	18	78	396	69	28	6.4	4.6	6.7
27	8.1	15	34	29	18	68	309	128	32	5.4	4.5	6.4
28	9.4	11	31	26	19	66	294	107	30	4.8	7.9	5.8
29	7.4	14	33	25	---	64	268	89	24	4.6	12	5.4
30	7.4	22	30	24	---	58	270	167	20	4.6	34	5.2
31	7.4	---	23	23	---	54	---	178	---	4.3	26	---
TOTAL	311.9	437.7	702.0	876	897	2790	6124	4931	1787	305.0	401.1	199.8
MEAN	10.1	14.6	22.6	28.3	32.0	90.0	204	159	59.6	9.84	12.9	6.66
MAX	28	31	59	120	105	450	417	560	139	24	72	14
MIN	6.1	7.7	9.1	11	18	22	56	69	20	4.3	4.5	3.8
CFSM	.33	.48	.74	.93	1.05	2.95	6.69	5.21	1.95	.32	.42	.22
IN.	.38	.53	.86	1.07	1.09	3.40	7.47	6.01	2.18	.37	.49	.24

CAL YR 1982 TOTAL 15527.7 MEAN 42.5 MAX 490 MIN 2.7 CFSM 1.39 IN 18.94
WTR YR 1983 TOTAL 19762.5 MEAN 54.1 MAX 560 MIN 3.8 CFSM 1.77 IN 24.10

01144000 WHITE RIVER AT WEST HARTFORD, VT

LOCATION.--Lat 43°42'51", long 72°25'07", Windsor County, Hydrologic Unit 01080105, on left bank 700 ft upstream from highway bridge at West Hartford and 7.4 mi upstream from mouth.
DRAINAGE AREA.--690 mi².
PERIOD OF RECORD.--Discharge: June 1915 to current year. October 1927 to September 1928 monthly discharge only, published in WSP 1301.
Water-quality records: Water years 1953, 1967-74.
REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1928(M). WSP 1031: 1916(m), 1923. WSP 1301: 1916-26(M), 1929(M).
GAGE.--Water-stage recorder. Datum of gage is 374.53 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 30, 1927, nonrecording gage at same site and datum.
REMARKS.--Records good except those for winter period, which are fair. Some diurnal fluctuation at low flow during period 1934-50 caused by powerplant upstream. Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--68 years, 1,184 ft³/s, 23.30 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft³/s Nov. 4, 1927, gage height, 29.3 ft, from floodmarks, from rating curve extended above 29,000 ft³/s on basis of slope-area measurement of peak flow; minimum observed, about 35 ft³/s Aug. 4, 1918; minimum daily, 54 ft³/s Sept. 27, 28, 1963.
Stage and discharge of the flood of Nov. 4, 1927, are the greatest since at least 1761.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 11,600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 25	0145	14550	11.83	May 4	0715	*15070	12.01

Minimum discharge, 136 ft³/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	182	185	856	580	600	480	1450	6580	3230	366	443	422
2	167	243	720	540	580	600	1560	7410	2480	350	672	300
3	175	290	627	480	1150	1200	1730	10700	2070	364	530	250
4	165	273	576	400	3770	994	1740	11500	2160	355	350	221
5	151	462	527	290	1600	843	2070	6330	2370	332	260	205
6	142	781	497	350	1050	844	2400	4410	1970	415	234	194
7	137	518	563	370	1000	1040	2810	3470	2690	401	233	191
8	303	408	497	340	860	1470	3620	3030	2070	338	200	185
9	755	354	448	310	820	1100	4660	4390	1700	296	736	174
10	525	318	262	230	720	1110	4470	3610	1490	265	491	176
11	384	292	320	1550	680	2420	5020	3220	1320	254	330	178
12	302	279	430	1820	660	2040	4660	2960	1180	246	2960	167
13	263	445	290	900	640	1560	4320	2660	1060	238	1660	169
14	256	760	215	560	620	1350	4450	2450	947	213	886	169
15	269	528	310	540	600	1420	4610	2230	860	201	598	163
16	294	441	1050	520	580	1670	3890	2620	771	191	456	158
17	323	383	2540	500	560	1910	3790	2210	759	179	374	154
18	305	350	1000	490	540	1610	3580	1890	806	167	325	202
19	272	326	760	470	520	3320	3120	1700	993	159	297	201
20	254	313	740	450	520	8440	3500	1700	731	152	275	176
21	245	301	680	440	500	5160	3530	1750	620	149	241	160
22	236	305	600	430	520	4040	3080	1540	553	172	219	257
23	224	485	490	550	540	2820	3530	1700	501	185	255	318
24	216	840	540	2200	530	2220	5170	1980	448	167	253	220
25	208	831	580	1800	530	1890	12000	1730	445	236	216	189
26	202	646	1070	1200	520	1740	9750	1500	483	228	199	174
27	198	567	1050	850	500	1650	6370	2360	540	180	192	165
28	192	385	819	740	490	1640	6540	2540	578	156	262	157
29	187	501	927	680	---	1670	7110	1990	469	146	259	150
30	184	857	795	640	---	1410	6810	2900	405	144	335	142
31	180	---	607	620	---	1360	---	4620	---	140	558	---
TOTAL	7896	13667	21386	21840	22200	61021	131340	109680	36699	7385	15299	5987
MEAN	255	456	690	705	793	1968	4378	3538	1223	238	494	200
MAX	755	857	2540	2200	3770	8440	12000	11500	3230	415	2960	422
MIN	137	185	215	230	490	480	1450	1500	405	140	192	142
CFSM	.37	.66	1.00	1.02	1.15	2.85	6.35	5.13	1.77	.35	.72	.29
IN.	.43	.74	1.15	1.18	1.20	3.29	7.08	5.91	1.98	.40	.82	.32

CAL YR 1982 TOTAL 382442 MEAN 1048 MAX 17100 MIN 101 CFSM 1.52 IN 20.62
WTR YR 1983 TOTAL 454400 MEAN 1245 MAX 12000 MIN 137 CFSM 1.80 IN 24.50

01144500 CONNECTICUT RIVER AT WEST LEBANON, NH

LOCATION.--Lat 43°38'46", long 72°18'46", Grafton County, Hydrologic Unit 01080104, on left bank 50 ft downstream from railroad bridge at West Lebanon, 500 ft downstream from White River, and at mile 215.0.
DRAINAGE AREA.--4,092 mi².
PERIOD OF RECORD.--Discharge: October 1911 to November 1976 (published as "at White River Junction, VT"), November 1978 to current year.
Water-quality records: Water year 1954.
REVISED RECORDS.--WSP 741: 1932 (adjusted monthly and yearly figures only). WSP 781: 1928(M). WSP 891: Drainage area. WSP 1301: 1922-26(M).
GAGE.--Water-stage recorder. Datum of gage is 321.52 ft National Geodetic Vertical Datum of 1929. Prior to June 16, 1918, nonrecording gage on downstream side of pier of railroad bridge 50 ft upstream at same datum. June 16, 1918, to Nov. 2, 1930, nonrecording gage at various locations on upstream and downstream sides of railroad bridge at same datum.
REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, Union Village Reservoir (Reservoirs in Connecticut River basin), and other reservoirs, combined usable capacity, about 17,200,000,000 ft³. Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--69 years (water years 1912-76, 80-83), 7,139 ft³/s.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 136,000 ft³/s Nov. 4, 1927, gage height, 35.0 ft, present site, from rating curve extended above 70,000 ft³/s; minimum daily, 82 ft³/s Aug. 8, 1965.
Stage and discharge of the flood of Nov. 4, 1927, are the greatest since at least 1760.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 34,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 26	2330	36500	15.84	May 4	0900	*45600	18.04

Minimum daily discharge, 948 ft³/s Oct. 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	3340	1380	7200	6410	7000	5670	6040	30100	19000	2510	4630	5510
2	1900	1860	6600	2540	6500	4700	6480	32500	17400	1200	6050	3100
3	1180	3140	7200	4910	8910	5840	6260	40100	15800	2650	5690	1100
4	2470	4430	7400	4870	14800	5050	8030	42600	15400	1280	4640	1050
5	2270	7000	5200	3530	13300	4610	7280	39500	12000	3700	4400	1030
6	2210	11000	7000	3200	8190	4670	7810	33900	9240	3920	1080	4130
7	1730	12100	6300	3340	7480	6800	9520	28400	13200	5880	1040	3760
8	2980	10500	5600	2100	6000	10400	13600	18000	13500	3840	2730	1040
9	3250	7210	4970	2000	5600	11200	15900	20900	12400	3120	4420	1460
10	2380	4470	4820	5100	5800	9380	12600	26400	8340	1500	7370	1440
11	1960	4890	1070	7600	6200	11400	18000	25200	7970	3340	5630	1300
12	2810	4740	2180	11000	4500	12200	23500	24700	2950	3680	8790	2220
13	2490	7290	5030	10000	3600	8360	19400	19500	7060	3470	5860	1260
14	2160	9420	3360	6800	5400	9990	19100	16400	6570	3200	3230	1460
15	2060	6880	3780	3500	6000	9990	19300	15300	4700	3360	6280	1600
16	1330	5710	5050	1800	4800	7520	19300	16500	6070	1660	3600	1430
17	1370	5050	9920	5000	5700	10100	20200	18400	6430	987	3320	976
18	2970	4680	7200	4600	3600	11900	21200	15300	7000	2380	4360	954
19	3320	4700	6200	4500	4100	14000	18100	13700	6110	2380	3480	2360
20	2970	3450	6000	4300	3500	26600	17300	11400	7140	2520	1130	2720
21	2750	2700	5800	4300	3600	24200	18100	11600	4800	2330	1070	3400
22	2880	4680	5000	2600	6600	21900	16900	8400	5430	2030	3110	4270
23	1580	7110	5000	4400	6400	16400	16600	10000	5120	2570	3340	3080
24	975	6780	3800	9400	5800	13400	18900	10100	5150	1260	3380	1580
25	2380	6900	3400	7000	4900	12000	32900	10200	1990	3010	2480	1140
26	2410	7880	3900	7200	3100	9940	36000	12200	1570	3270	1090	2420
27	1700	4700	6950	6600	2200	7190	34700	12400	4480	3180	1010	2580
28	1390	5400	7500	6300	5100	8810	30300	13600	3330	3210	2210	2560
29	1660	4800	7530	6200	---	7740	29100	13700	3550	2750	2730	2240
30	948	5300	8020	5200	---	6350	29900	14500	3170	1530	3830	2290
31	1060	---	7290	6000	---	5960	---	17200	---	1270	6260	---
TOTAL	66883	176150	176270	162300	168680	324270	552320	622700	236870	82987	118240	65460
MEAN	2158	5872	5686	5235	6024	10460	18410	20090	7896	2677	3814	2182
MAX	3340	12100	9920	11000	14800	26600	36000	42600	19000	5880	8790	5510
MIN	948	1380	1070	1800	2200	4610	6040	8400	1570	987	1010	954

CAL YR 1982 TOTAL 2516236 MEAN 6894 MAX 51100 MIN 881
WTR YR 1983 TOTAL 2753130 MEAN 7543 MAX 42600 MIN 948

01150500 MASCOMA RIVER AT MASCOMA, NH

LOCATION.--Lat 43°39'01", long 72°11'05", Grafton County, Hydrologic Unit 01080104, on left bank at Mascoma, 250 ft downstream from railroad bridge, 1,000 ft downstream from outlet of Mascoma Lake, and 9.9 mi upstream from mouth.

DRAINAGE AREA.--153 mi^2.

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

REVISED RECORDS.--WSP 726: Drainage area. WSP 801: 1925(M).

GAGE.--Water-stage recorder. Altitude of gage is 740 ft, from topographic map.

REMARKS.--Records good. Flow regulated by Mascoma and Crystal Lakes and Goose and Grafton Ponds (Reservoirs in Connecticut River basin).

AVERAGE DISCHARGE.--60 years, 215 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,840 ft^3/s Mar. 19, 1936, gage height, 7.50 ft, from rating curve extended above 2,500 ft^3/s on basis of computations of flow over dams at gage heights 6.85 ft and 7.50 ft; minimum daily, 2 ft^3/s Feb. 3, 1939, Sept. 1, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,441 ft^3/s Apr. 26, gage height, 3.90 ft; minimum daily, 17 ft^3/s Oct. 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	37	27	104	110	110	77	173	818	567	62	32	33
2	32	28	105	103	107	90	182	936	594	38	32	34
3	29	29	108	97	120	135	200	1100	625	38	32	35
4	28	30	108	93	254	215	215	1140	636	38	32	35
5	27	31	108	85	254	269	231	1120	645	38	32	35
6	25	32	108	75	254	274	185	871	613	38	32	35
7	25	34	108	70	254	267	159	574	444	38	32	35
8	97	35	107	64	110	256	117	234	298	38	32	35
9	169	36	105	64	110	245	55	438	234	38	32	35
10	142	36	102	60	110	233	203	652	151	38	32	35
11	119	37	97	75	110	256	968	653	108	37	31	35
12	108	38	93	112	110	335	1280	615	108	37	32	34
13	97	39	89	144	110	523	1160	494	109	37	32	34
14	87	43	86	145	90	580	933	353	114	37	33	34
15	77	59	84	139	90	523	956	353	108	37	33	33
16	68	79	88	133	90	490	944	353	99	36	33	33
17	60	91	100	119	90	490	839	278	99	36	33	33
18	55	95	113	112	91	484	810	199	99	36	33	32
19	53	72	114	106	89	486	809	204	102	36	33	32
20	40	53	113	100	87	770	801	210	119	35	32	32
21	22	58	114	94	86	1150	819	224	115	35	32	32
22	17	65	112	88	84	1180	754	233	115	35	32	32
23	18	75	108	88	83	1040	650	370	107	35	32	32
24	19	85	105	99	83	855	646	444	105	35	31	32
25	20	93	104	113	82	575	915	443	106	34	31	32
26	21	97	104	132	81	396	1290	385	100	34	31	32
27	22	97	107	141	79	365	1380	423	95	33	31	32
28	21	99	110	140	77	286	1200	513	92	33	31	32
29	23	98	111	132	---	211	997	513	90	33	31	32
30	24	100	115	123	---	186	823	507	88	33	31	31
31	25	---	114	116	---	162	---	516	---	32	32	---
TOTAL	1607	1791	3244	3272	3295	13404	20694	16166	6885	1140	990	998
MEAN	51.8	59.7	105	106	118	432	690	521	230	36.8	31.9	33.3
MAX	169	100	115	145	254	1180	1380	1140	645	62	33	35
MIN	17	27	84	60	77	77	55	199	88	32	31	31

CAL YR 1982 TOTAL 69771 MEAN 191 MAX 1980 MIN 16
WTR YR 1983 TOTAL 73486 MEAN 201 MAX 1380 MIN 17

01151500 OTTAUQUECHEE RIVER AT NORTH HARTLAND, VT

LOCATION.--Lat 43°36'09", long 72°21'17", Windsor County, Hydrologic Unit 01080106, on left bank 100 ft upstream from highway bridge at North Hartland, 0.3 mi downstream from North Hartland Dam, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--221 mi^2.

PERIOD OF RECORD.--Discharge: October 1930 to current year.
Water-quality records: Water years 1954-55.

GAGE.--Water-stage recorder. Datum of gage is 336.77 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for shifting control Aug. 23 to Sept. 30, which are fair. Flow regulated by powerplants upstream and by North Hartland Reservoir (Reservoir in Connecticut River basin) since March 1961; greater regulation by powerplants prior to 1958. Small seasonal storage in reservoir at Plymouth. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--53 years, 397 ft^3/s, 24.39 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft^3/s Sept. 21, 1938, gage height, 17.68 ft, from rating curve extended above 6,200 ft^3/s on basis of computations of flow over dams at gage heights 15.58 ft, 17.68 ft, and 21.5 ft; minimum, 2.9 ft^3/s July 31, 1933; minimum daily, 3.8 ft^3/s July 3, 1933. Maximum discharge since construction of North Hartland Dam in March 1961, 6,170 ft^3/s Mar. 17, 1977, gage height, 8.67 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1760, 21.5 ft in November 1927, from floodmarks, discharge 30,400 ft^3/s, by computation of peak flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,910 ft^3/s Apr. 27, gage height, 7.88 ft; minimum, 4.2 ft^3/s Aug. 25; minimum daily, 16 ft^3/s Sept. 13-21, 23, 24.

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	84	69	211	139	227	164	556	2370	1120	32	108	45
2	73	67	206	164	217	269	570	3440	954	63	110	81
3	40	67	151	162	428	563	572	3330	764	82	105	268
4	27	67	156	99	752	378	590	2280	756	105	96	228
5	27	178	125	57	488	338	883	2290	921	123	167	99
6	54	162	116	82	394	358	950	1360	804	164	287	34
7	67	121	107	107	421	397	1170	1150	959	130	274	18
8	107	98	125	113	318	418	1340	981	626	89	262	18
9	123	96	125	113	265	368	1590	1420	603	78	145	18
10	89	69	91	113	258	356	1770	1360	453	59	50	62
11	98	55	64	623	179	773	1930	1070	597	56	50	117
12	108	55	74	576	184	927	1830	960	1030	60	362	43
13	108	120	78	236	275	571	1800	816	171	60	613	16
14	75	167	77	147	245	463	1690	747	26	48	576	16
15	54	164	77	135	211	481	1290	705	66	50	239	16
16	52	101	116	169	203	552	769	697	141	46	121	16
17	73	63	450	153	204	677	1110	601	183	50	130	16
18	82	63	401	153	185	741	2120	519	250	37	120	16
19	82	91	173	151	176	776	1750	420	256	30	125	16
20	75	104	128	120	181	1540	1430	508	319	30	130	16
21	73	95	167	110	178	1540	1370	561	359	42	123	16
22	66	89	164	158	181	1790	1180	581	271	42	73	17
23	59	99	125	173	183	2350	1300	566	88	33	25	16
24	55	123	195	576	179	1990	1570	660	71	40	25	16
25	41	126	206	650	173	1650	937	665	250	46	22	17
26	35	156	185	340	167	845	2060	533	141	53	21	17
27	35	169	190	230	165	761	4350	1060	111	39	32	17
28	34	123	230	250	164	741	4240	1020	151	26	33	17
29	34	128	250	247	---	630	3130	645	137	43	18	17
30	34	169	250	247	---	484	2370	1020	65	50	37	70
31	55	---	180	247	---	490	---	1760	---	91	44	---
TOTAL	2019	3254	5193	6840	7201	24381	48217	36095	12643	1897	4523	1379
MEAN	65.1	108	168	221	257	786	1607	1164	421	61.2	146	46.0
MAX	123	178	450	650	752	2350	4350	3440	1120	164	613	268
MIN	27	55	64	57	164	164	556	420	26	26	18	16
MEAN†	64.7	110	166	223	253	790	1619	1154	407	63.8	139	55.5
CFSM†	.29	.50	.75	1.01	1.14	3.57	7.33	5.22	1.84	.29	.63	.25
IN†	.34	.56	.86	1.16	1.19	4.12	8.17	6.02	2.06	.33	.73	.28

CAL YR 1982 TOTAL 126400 MEAN 346 MAX 4250 MIN 22 MEAN† 346 CFSM† 1.57 IN† 21.27
WTR YR 1983 TOTAL 153642 MEAN 421 MAX 4350 MIN 16 MEAN† 420 CFSM† 1.90 IN† 25.82

† Adjusted for change in contents in North Hartland Reservoir.

01152500 SUGAR RIVER AT WEST CLAREMONT, NH

LOCATION.--Lat 43°23'15", long 72°21'45", Sullivan County, Hydrologic Unit 01080104, on right bank 0.2 mi downstream from Redwater Brook at West Claremont and 2.4 mi upstream from mouth.

DRAINAGE AREA.--269 mi^2.

PERIOD OF RECORD.--Discharge: May 1928 to current year. Published as "at Claremont" prior to October 1928. Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 711: 1930(M). WSP 756: Drainage area. WSP 1901: 1960 (adjusted figures only).

GAGE.--Water-stage recorder. Datum of gage is 358.78 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1928, nonrecording gage at site 0.8 mi upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Regulation by Sunapee Lake 25 mi upstream (Reservoirs in Connecticut River basin) and occasional diurnal fluctuation at low flow by mills upstream; greater regulation by mills prior to 1971.

AVERAGE DISCHARGE.--55 years, 404 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft^3/s Mar. 19, 1936, gage height, 10.92 ft, from rating curve extended above 6,700 ft^3/s on basis of computations of flow over dam at gage heights 10.49 ft and 10.92 ft; maximum gage height, 11.80 ft Mar. 12, 1936, ice jam; minimum daily discharge, 14 ft^3/s Aug. 26, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s and maximums (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 4	0700	ice jam	*6.26	Apr. 11	1100	*3520	5.59

Minimum daily discharge, 22 ft^3/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	73	82	141	156	260	200	564	660	1390	85	76	104
2	70	83	133	144	250	500	572	2300	1130	83	74	91
3	64	82	125	128	600	1500	616	1900	880	82	66	82
4	59	76	121	78	1500	1250	703	1600	850	83	64	76
5	64	98	96	90	1250	900	758	1400	1010	120	64	71
6	61	129	98	85	1100	640	813	1250	823	140	65	66
7	60	117	108	80	950	595	873	1020	702	112	67	59
8	96	98	103	70	850	529	993	900	602	97	65	55
9	108	88	79	64	750	478	1220	1080	555	89	67	53
10	127	81	55	69	660	561	1210	935	376	82	61	53
11	121	72	80	517	600	864	3000	808	310	77	76	54
12	102	79	75	642	540	1140	2000	740	270	63	107	52
13	95	245	68	383	480	1190	1200	629	239	55	96	45
14	99	321	64	325	440	987	850	566	213	71	89	30
15	95	218	60	300	400	986	760	531	195	75	79	23
16	90	169	109	275	380	1150	730	570	172	77	71	24
17	85	121	160	260	350	1220	1550	505	157	76	67	22
18	82	125	158	240	330	1080	1200	416	144	76	65	24
19	76	111	128	230	310	1350	720	363	140	72	64	24
20	74	87	115	220	290	2590	1200	378	129	64	62	25
21	75	96	110	210	270	2310	800	484	116	66	58	23
22	69	100	105	200	260	1930	660	455	106	73	62	51
23	66	110	105	200	250	1710	640	539	96	68	64	36
24	72	116	102	300	240	1320	1000	892	88	72	59	29
25	68	115	114	680	230	1130	2710	730	101	75	57	27
26	77	90	175	550	220	951	2000	588	118	74	57	26
27	78	103	210	475	215	850	1000	1090	124	64	58	27
28	77	95	208	425	210	807	700	1360	108	62	63	49
29	76	122	216	360	---	746	560	1030	99	63	62	51
30	82	131	171	310	---	695	780	1100	90	63	72	56
31	78	---	161	275	---	609	---	1510	---	57	84	---
TOTAL	2519	3560	3753	8341	14185	32768	32382	28329	11333	2416	2141	1408
MEAN	81.3	119	121	269	507	1057	1079	914	378	77.9	69.1	46.9
MAX	127	321	216	680	1500	2590	3000	2300	1390	140	107	104
MIN	59	72	55	64	210	200	560	363	88	55	57	22

CAL YR 1982 TOTAL 151908 MEAN 416 MAX 4800 MIN 55
WTR YR 1983 TOTAL 143135 MEAN 392 MAX 3000 MIN 22

01153000 BLACK RIVER AT NORTH SPRINGFIELD, VT

LOCATION.--Lat 43°20'00", long 72°30'55", Windsor County, Hydrologic Unit 01080106, on right bank at North Springfield, 800 ft downstream from North Springfield Dam, 1,300 ft upstream from Great Brook, and 8.1 mi upstream from mouth.

DRAINAGE AREA.--158 mi^2.

PERIOD OF RECORD.--Discharge: October 1929 to current year. October 1929 monthly discharge only, published in WSP 1301.
Water-quality records: Water years 1954-55.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1931(M), 1934(M).

GAGE.--Water-stage recorder. Datum of gage is 445.79 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplant and mills upstream and by North Springfield Reservoir (Reservoirs in Connecticut River basin) since November 1960. High flow slightly affected by retarding reservoirs since 1968. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--54 years, 291 ft^3/s, 25.01 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s Sept. 22, 1938, gage height, 17.68 ft, from rating curve extended above 3,200 ft^3/s on basis of computations of flow over dams at gage heights 16.41 ft and 17.68 ft; minimum daily, 7.0 ft^3/s Nov. 13, 1973. Maximum discharge since construction of North Spingfield Dam in 1960, 3,550 ft^3/s Apr. 11, 1962, gage height, 6.43 ft; maximum gage height, 7.24 ft Apr. 6, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,100 ft^3/s Mar. 22, gage height, 6.96 ft; minimum daily, 22 ft^3/s Sept. 16-21.

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	30	34	108	127	152	132	273	1510	985	69	42	51
2	28	32	102	110	113	205	280	2280	693	66	71	44
3	27	33	95	95	362	374	374	2330	504	57	62	41
4	26	43	93	66	938	280	519	1550	622	55	56	35
5	24	138	87	60	522	244	645	1370	717	51	55	33
6	24	170	90	70	273	235	675	1260	545	58	53	32
7	23	121	106	78	286	257	991	729	551	50	35	29
8	40	94	90	70	245	254	1060	639	460	54	41	27
9	69	81	78	57	220	235	944	1190	369	43	42	25
10	87	66	52	55	200	309	876	933	328	42	42	25
11	69	63	46	456	190	651	1450	736	280	39	46	25
12	56	55	44	526	175	681	1920	651	257	38	230	24
13	48	104	40	251	165	594	1670	519	223	36	382	24
14	46	128	38	173	155	413	1250	494	197	34	204	23
15	44	97	49	161	150	413	921	450	197	33	121	23
16	43	83	77	140	145	450	832	450	162	32	91	22
17	70	75	242	130	140	519	1160	404	135	29	63	22
18	69	68	125	125	140	436	1340	348	104	29	53	22
19	57	64	105	120	135	927	1080	305	88	26	54	22
20	48	57	95	120	135	1790	985	320	78	25	46	22
21	45	53	90	115	132	1580	1120	418	73	27	41	22
22	41	53	85	110	130	1690	860	378	66	30	38	49
23	39	77	82	115	127	2830	854	460	60	28	39	60
24	37	113	80	450	124	962	1010	594	58	33	38	42
25	36	98	78	575	124	535	2260	450	56	37	39	38
26	35	99	170	330	114	530	2680	365	68	34	36	33
27	33	88	217	241	107	514	2160	1060	69	30	33	31
28	32	82	186	189	97	509	1580	876	84	29	42	29
29	32	86	191	170	---	427	1570	628	84	24	55	26
30	31	96	182	163	---	382	1510	938	78	26	42	28
31	31	---	140	158	---	305	---	1470	---	25	46	---
TOTAL	1320	2451	3263	5606	5796	19663	34849	26105	8191	1189	2238	929
MEAN	42.6	81.7	105	181	207	634	1162	842	273	38.4	72.2	31.0
MAX	87	170	242	575	938	2830	2680	2330	985	69	382	60
MIN	23	32	38	55	97	132	273	305	56	24	33	22
MEAN†	42.3	81.7	106	181	208	654	1148	839	270	37.5	72.7	30.0
CFSM†	.27	.52	.67	1.15	1.32	4.14	7.27	5.31	1.71	.24	.46	.19
IN†	.31	.58	.77	1.32	1.37	4.77	8.11	6.12	1.90	.27	.53	.21

CAL YR 1982 TOTAL 101991 MEAN 279 MAX 3230 MIN 20 MEAN† 279 CFSM† 1.77 IN† 24.01
WTR YR 1983 TOTAL 111600 MEAN 306 MAX 2830 MIN 22 MEAN† 306 CFSM† 1.94 IN† 26.26

† Adjusted for change in contents in North Springfield Reservoir.

01153500 WILLIAMS RIVER AT BROCKWAYS MILLS, VT

LOCATION.--Lat 43°12'31", long 72°31'05", Windham County, Hydrologic Unit 01080107, on left bank 25 ft upstream from highway bridge at Brockways Mills, 4 mi downstream from Hall Brook, 4.6 mi upstream from mouth, and 6 mi northwest of Bellows Falls.

DRAINAGE AREA.--103 mi^2.

PERIOD OF RECORD.--Discharge: June 1940 to September 1983 (discontinued).
Water-quality records: Water years 1957, 1967-74.

REVISED RECORDS.--WSP 1031: 1943-44(P). WSP 1301: 1941-42(M).

GAGE.--Water-stage recorder. Datum of gage is 433.54 ft National Geodetic Vertical Datum of 1929 (levels by private engineer).

REMARKS.--Records fair except those for winter period which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--43 years, 173 ft^3/s, 22.81 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft^3/s Aug. 10, 1976, gage height, 15.85 ft, from rating curve extended above 3,300 ft^3/s on basis of slope-area measurement at gage height 13.31 ft; minimum not determined, occurred Dec. 11, 1941, during period of ice effect; minimum daily, 3.6 ft^3/s Aug. 27, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1938 had greatest discharge since at least 1753, gage height, 22.7 ft, from floodmarks. Flood in November 1927 reached a stage possibly 2 ft higher than that of September 1938 flood because of backwater from milldam, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 19	2230	*4590	9.29	Apr. 24	2100	4110	8.78

Minimum discharge, 8.7 ft^3/s Sept. 14-17.

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	22	56	70	76	81	323	636	482	41	35	29
2	23	24	52	60	81	310	357	1450	348	39	40	20
3	20	24	47	50	570	348	438	1080	274	36	29	16
4	17	24	47	40	555	224	496	755	448	33	22	14
5	14	145	45	45	243	192	605	543	383	47	26	14
6	13	81	44	48	175	188	600	420	272	52	24	13
7	13	49	48	50	160	217	617	346	272	39	24	12
8	60	42	43	48	140	203	830	304	208	32	17	11
9	62	38	38	45	130	188	835	646	169	28	16	10
10	51	34	31	98	130	305	806	418	138	26	14	9.6
11	34	32	32	635	120	474	1720	348	123	24	18	9.9
12	24	32	33	256	120	574	999	304	108	24	93	9.3
13	21	162	30	111	110	394	733	255	97	23	56	9.3
14	24	94	28	60	110	316	696	231	109	21	33	9.0
15	23	64	32	58	105	343	648	229	136	20	24	9.0
16	24	53	67	56	95	403	673	249	89	19	20	8.7
17	23	47	136	54	84	406	942	206	81	19	17	10
18	22	45	71	50	82	346	828	183	77	20	17	14
19	21	43	64	48	90	2550	719	168	71	21	17	14
20	21	41	60	46	84	2490	978	193	60	22	15	12
21	21	39	56	45	80	1320	846	195	55	26	12	12
22	22	40	54	45	78	1240	703	165	48	38	14	56
23	20	71	52	90	76	750	748	318	44	25	27	31
24	20	69	59	835	76	560	1500	471	39	27	19	21
25	20	58	81	647	74	460	1970	281	37	35	15	17
26	20	52	198	351	72	399	1130	229	38	27	13	16
27	20	47	143	200	70	342	741	762	49	24	13	15
28	20	38	96	140	70	336	650	480	71	24	25	13
29	20	52	100	110	---	361	545	362	69	25	20	13
30	20	63	81	92	---	321	730	775	49	26	17	12
31	20	---	60	84	---	300	---	752	---	27	22	---
TOTAL	758	1625	1984	4567	3856	16941	24406	13754	4444	890	754	459.8
MEAN	24.5	54.2	64.0	147	138	546	814	444	148	28.7	24.3	15.3
MAX	62	162	198	835	570	2550	1970	1450	482	52	93	56
MIN	13	22	28	40	70	81	323	165	37	19	12	8.7
CFSM	.24	.53	.62	1.43	1.34	5.30	7.90	4.31	1.44	.28	.24	.15
IN.	.27	.59	.72	1.65	1.39	6.12	8.81	4.97	1.61	.32	.27	.17

CAL YR 1982 TOTAL 63850.0 MEAN 175 MAX 2930 MIN 13 CFSM 1.70 IN 23.06
WTR YR 1983 TOTAL 74438.8 MEAN 204 MAX 2550 MIN 8.7 CFSM 1.98 IN 26.88

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH

LOCATION.--Lat 43°07'34", long 72°26'14", Cheshire County, Hydrologic Unit 01080104, on left bank at North Walpole, 100 ft upstream from Saxtons River, 0.7 mi downstream from Vilas Bridge between Bellows Falls, VT, and North Walpole, NH, and at mile 172.5.

DRAINAGE AREA.--5,493 mi^2, includes that of Saxtons River.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: March 1942 to current year.
Water-quality records: Water years 1954-55, 1971.

GAGE.--Water-stage recorder. Datum of gage is 218.63 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs (Reservoirs in Connecticut River basin), and other reservoirs, combined usable capacity, about 24,800,000,000 ft^3.

AVERAGE DISCHARGE.--41 years, 9,380 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 97,000 ft^3/s Mar. 27, 1953, gage height, 30.37 ft; minimum daily, 115 ft^3/s Aug. 31, 1952, Sept. 2, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1750, 43.8 ft Mar. 19, 1936, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55,500 ft^3/s May 3, gage height, 21.40 ft; minimum daily, 1,170 ft^3/s Oct. 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	4450	1830	7070	8130	8080	7080	8770	38500	25600	3210	5300	6860
2	1640	2500	7770	6100	8170	7990	10600	44700	23600	1740	6370	3150
3	1340	3740	7660	5130	12500	10700	11900	52300	21000	2660	6390	1680
4	3570	4830	9120	5750	20700	9460	11400	50400	20700	1420	4840	1490
5	2510	6440	7530	4280	19400	8490	11800	49600	19000	3970	4810	1710
6	2840	9900	7130	3580	13600	8440	12200	43300	13000	4890	1830	4840
7	1930	13000	7470	3650	9680	8390	13900	36000	17300	6690	2020	4320
8	4330	12200	7100	3410	8900	11700	20900	27000	17800	4460	3160	1360
9	3290	8690	5800	2420	8600	14200	23300	22900	16100	3310	4780	1620
10	2750	7910	5490	5600	8200	13000	20400	32700	12800	2170	7540	1570
11	2910	4780	2960	10400	7500	18300	30500	30000	9620	4600	6700	1330
12	3570	5030	1810	15400	6600	20000	35100	30700	7100	3810	8360	2270
13	3970	7920	5120	13400	6100	13400	30000	26000	7650	3400	7880	1450
14	2710	9630	4510	8770	7400	13700	27500	20900	8540	3690	5780	1650
15	2360	8180	4400	7290	7450	14500	26500	20500	8290	3790	7620	1650
16	1590	7670	5900	3330	7650	14400	25300	19300	5890	1880	3800	1780
17	1620	5930	8590	5900	7440	14800	28000	22400	8200	1360	4160	1350
18	3950	5740	8470	4900	7010	18500	29900	19400	7510	2440	3980	1360
19	3920	5550	8160	5200	5290	24800	28100	17200	6360	3370	4800	2940
20	3620	4660	8080	5000	5260	39200	25900	14900	8410	2890	1360	2590
21	3690	3340	6940	4800	5030	39100	27300	14800	8720	2800	1350	3470
22	3700	5580	6920	4160	6390	31800	24400	14600	5490	1780	3470	6260
23	1850	6640	5630	4290	8190	26800	23800	10600	6140	3080	3670	3020
24	1360	8050	5800	11200	7360	21200	26500	16100	5400	1380	3530	1740
25	2650	7490	4670	12200	6280	18800	42800	13800	3130	3620	2710	1360
26	3000	7750	5980	10500	5750	14700	46400	16100	2350	3680	1390	2630
27	2140	7900	6770	8930	4860	12600	46800	19600	6430	3310	1440	2550
28	1680	5570	8050	8290	4030	13500	42300	20500	4520	3460	2550	2600
29	1170	7300	9050	8290	---	12400	38500	19500	4270	2460	2990	2040
30	1380	5280	9200	8210	---	11700	37900	20600	3550	1700	3960	2340
31	1630	---	8940	8120	---	8370	---	26300	---	2130	6500	---
TOTAL	83120	201030	208090	216630	233420	502020	788670	811200	314470	95150	135040	74980
MEAN	2681	6701	6713	6988	8336	16190	26290	26170	10480	3069	4356	2499
MAX	4450	13000	9200	15400	20700	39200	46800	52300	25600	6690	8360	6860
MIN	1170	1830	1810	2420	4030	7080	8770	10600	2350	1360	1350	1330

CAL YR 1982 TOTAL 3325280 MEAN 9110 MAX 67200 MIN 1170
WTR YR 1983 TOTAL 3663820 MEAN 10040 MAX 52300 MIN 1170

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH--Continued
(National stream-quality accounting network station)

PERIOD OF RECORD.--Water years 1975 to September 1980 (published as "at Walpole"), October 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to September 1981.
WATER TEMPERATURES: October 1980 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	BARO-METRIC PRES-SURE (MM OF HG)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
15...	1330	8100	98	757	7.4	7.5	--	10.8	91	--	--
29...	0930	7360	95	750	7.9	4.0	3.0	11.9	92	450	170
MAR											
29...	1045	12300	101	752	6.6	1.5	1.2	13.8	100	100	83
MAY											
31...	1100	26700	88	749	6.9	11.5	1.5	11.4	106	630	1500
JUL											
28...	1215	7010	132	762	7.2	23.5	<1.0	7.2	85	280	22

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)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	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											
15...	--	--	--	--	--	--	--	--	--	--	--
29...	36	0.72	12	1.5	4.2	20	0.3	0.7	29	12	5.6
MAR											
29...	36	0.72	12	1.4	4.5	21	0.3	1.0	27	10	7.1
MAY											
31...	32	0.65	11	1.2	3.5	19	0.3	0.8	24	12	5.2
JUL											
28...	49	0.98	17	1.6	4.7	17	0.3	1.2	39	10	8.4

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	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, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)
NOV										
15...	--	--	--	--	--	--	--	--	--	--
29...	<0.1	6.1	77	60	0.33	0.05	0.06	0.2	0.02	0.06
MAR										
29...	<0.1	5.5	65	58	0.27	0.02	0.03	<0.1	0.03	0.09
MAY										
31...	0.1	5.1	64	54	0.16	0.03	0.04	0.2	<0.00	--
JUL										
28...	0.1	4.8	91	71	0.19	<0.00	--	0.3	0.03	0.09

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
NOV										
15...	--	--	--	--	--	--	--	--	--	--
29...	<0.01	<0.01	0.03	5	99	100	1	14.00	<1	<1
MAR										
29...	0.02	<0.00	--	4	133	88	<1	43.00	1	<1
MAY										
31...	<0.00	0.00	--	12	865	70	1	24.00	<1	<1
JUL										
28...	0.04	<0.00	--	1	19	100	1	16.00	2	<1

DATE	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
NOV										
15...	--	--	--	--	--	--	--	--	--	--
29...	<3.00	2	110	4	21	<0.1	1	--	1	6.00
MAR										
29...	<3.00	4	50	8	19	<0.1	2	<1	<1	6.00
MAY										
31...	<3.00	2	60	<1	18	<0.1	1	<1	<1	5.00
JUL										
28...	<3.00	12	20	33	22	<0.1	5	<1	<1	8.00

01155500 WEST RIVER AT JAMAICA, VT

LOCATION.--Lat 43°06'32", long 72°46'33", Windham County, Hydrologic Unit 01080107, on left bank 0.2 mi upstream from highway bridge at Jamaica, 0.4 mi upstream from Ball Mountain Brook, and 2.8 mi downstream from Ball Mountain Dam, and at mile 26.2.

DRAINAGE AREA.--179 mi^2.

PERIOD OF RECORD.--Discharge: October 1946 to current year.
Water-quality records: Water year 1954.

GAGE.--Water-stage recorder. Altitude of gage is 640 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Ball Mountain Reservoir since 1961 (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--37 years, 366 ft^3/s, 27.77 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,500 ft^3/s Dec. 31, 1948, gage height, 14.87 ft, from rating curve extended above 9,800 ft^3/s, verified by slope-area measurement of peak flow; minimum, 0.94 ft^3/s Sept. 23-25, 1968; minimum daily, 0.94 ft^3/s Sept. 23, 24, 1968. Maximum discharge since construction of Ball Mountain Dam in 1961, 5.080 ft^3/s Mar. 17, 1977, gage height, 9.27 ft; maximum gage height, 11.72 ft Feb. 7, 1982, ice jam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,360 ft^3/s Apr. 26, gage height, 8.90 ft; maximum gage height, 8.99 ft Jan. 24, ice jam; minimum discharge, 21 ft^3/s Oct. 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	28	36	301	201	200	146	306	2120	1310	85	41	43
2	623	28	235	201	140	177	275	2760	743	45	40	43
3	473	37	193	200	500	412	290	3410	381	44	40	43
4	34	43	172	150	1340	480	444	2530	330	44	40	43
5	34	96	137	90	753	326	735	1820	553	44	40	43
6	33	209	119	115	400	261	795	933	716	44	40	43
7	34	239	148	176	400	252	797	971	634	44	39	43
8	40	136	162	142	200	298	1090	1180	394	43	39	42
9	92	110	160	137	230	334	1410	1360	181	43	40	42
10	195	108	98	100	250	334	1480	1340	198	43	39	42
11	219	105	49	200	240	399	2330	838	250	42	41	42
12	130	107	60	400	230	480	2890	663	209	42	45	42
13	67	107	65	400	230	465	1920	511	145	42	44	42
14	48	106	65	400	240	442	1500	395	146	42	43	41
15	64	494	65	250	240	428	1570	397	259	42	42	36
16	98	541	125	225	220	428	1170	404	270	41	42	32
17	116	162	450	225	230	445	1220	404	199	41	42	33
18	114	146	600	230	240	452	1430	399	202	41	42	32
19	111	123	420	230	250	972	1820	393	200	41	42	32
20	95	111	230	220	250	1790	1460	392	197	41	42	32
21	74	111	230	190	240	1610	872	395	194	42	42	33
22	59	110	200	170	200	1650	834	392	112	43	42	38
23	59	142	170	170	200	2630	786	517	45	41	43	34
24	59	192	148	350	190	1120	1230	902	44	42	42	33
25	59	196	239	750	180	379	2350	760	44	42	42	33
26	59	223	504	940	160	381	3800	405	44	41	42	33
27	58	229	432	580	160	381	2810	540	45	41	42	33
28	58	140	329	300	150	381	1580	860	126	40	42	33
29	45	156	539	250	---	383	1870	826	164	40	42	33
30	38	281	594	240	---	379	2120	846	161	40	43	33
31	39	---	416	200	---	374	---	1020	---	40	44	---
TOTAL	3255	4824	7655	8432	8263	18989	43184	30683	8496	1346	1289	1127
MEAN	105	161	247	272	295	613	1439	990	283	43.4	41.6	37.6
MAX	623	541	600	940	1340	2630	3800	3410	1310	85	45	43
MIN	28	28	49	90	140	146	275	392	44	40	39	32
MEAN†	74.8	165	248	270	295	637	1526	929	266	32.1	48.3	38.8
CFSM†	.42	.92	1.39	1.51	1.65	3.56	8.53	5.19	1.49	.18	.27	.22
IN†	.48	1.03	1.60	1.73	1.72	4.11	9.51	5.99	1.66	.21	.31	.24

CAL YR 1982 TOTAL 127112 MEAN 348 MAX 4000 MIN 25 MEAN† 349 CFSM† 1.95 IN† 26.45
WTR YR 1983 TOTAL 137543 MEAN 377 MAX 3800 MIN 28 MEAN† 377 CFSM† 2.11 IN† 28.58

† Adjusted for change in contents in Ball Mountain Reservoir.

01156000 WEST RIVER AT NEWFANE, VT

LOCATION.--Lat 42°59'43", long 72°38'13", Windham County, Hydrologic Unit 01080107, on left bank 400 ft downstream from highway bridge, 1 mi northeast of Newfane, and at mile 12.7.

DRAINAGE AREA.--308 mi^2.

PERIOD OF RECORD.--Discharge: September 1919 to September 1923, October 1928 to current year.
Water-quality records: Water year 1954.
Water temperatures: October 1954 to September 1965.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1231: 1922-23, 1929-31(M).

GAGE.--Water-stage recorder. Datum of gage is 384.21 ft National Geodetic Vertical Datum of 1929. Prior to June 27, 1931, nonrecording gage at site 600 ft upstream and June 27, 1931, to Aug. 21, 1972, water-stage recorder on right bank 600 ft downstream from highway bridge at same datum.

REMARKS.--Records good except those for winter period and period of no gage-height record, Feb. 10 to Mar. 17, which are fair. Flow regulated since 1961 by Ball Mountain Reservoir and Townshend Reservoir 6.8 mi upstream (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--59 years, 627 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,300 ft^3/s Sept. 21, 1938, gage height, 22.81 ft, from floodmarks, from rating curve extended above 20,000 ft^3/s on basis of contracted-opening measurement at gage height 19.3 ft and slope-area measurements at gage heights 19.46 ft and 22.81 ft; minimum, 7.6 ft^3/s Aug. 24, 25, 26, 1962; minimum daily, 8.2 ft^3/s Aug. 25, 1962. Maximum discharge since construction of Ball Mountain and Townshend Reservoirs in 1961, 10,300 ft^3/s May 25, 1979, gage height, 10.07 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1869, that of Sept. 21, 1938. Flood of Nov. 3, 1927, reached a discharge of 45,000 ft^3/s, gage height, 23.0 ft, from floodmarks, at nonrecording-gage site, from rating curve extended above 20,000 ft^3/s on basis of computation of peak flow over dam at West Dummerston, about 5 mi downstream, adjusted for flow from intervening area.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,130 ft^3/s Apr. 27, gage height, 8.97 ft; minimum, 38 ft^3/s Sept. 21; minimum daily, 40 ft^3/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	44	58	400	260	320	218	597	3260	2620	199	60	164
2	452	58	315	250	300	317	541	4250	2150	117	60	99
3	479	58	281	240	582	823	636	5050	662	107	60	78
4	123	60	231	230	1750	911	813	4080	716	99	58	70
5	55	171	215	130	1950	653	1240	3020	921	96	59	70
6	51	253	172	110	1030	551	1340	1670	1040	99	69	65
7	46	285	175	180	616	574	1440	1210	1020	96	64	60
8	65	227	186	170	400	582	2040	1610	722	90	57	55
9	117	131	186	155	320	589	2500	1940	523	85	53	55
10	175	133	170	145	310	613	2630	1970	278	83	53	55
11	223	128	104	140	310	975	4140	1410	352	83	57	55
12	143	129	80	135	300	1100	5000	1070	353	83	102	53
13	58	283	75	200	310	884	4270	950	284	83	116	52
14	58	286	70	400	320	780	2480	772	229	80	89	51
15	55	345	85	600	330	788	2310	734	341	80	75	47
16	136	738	150	400	320	884	1650	719	395	80	69	43
17	208	266	600	320	310	957	2170	710	341	70	64	40
18	136	182	720	290	300	878	2660	710	619	68	63	45
19	126	177	600	260	290	2740	3000	710	407	65	63	46
20	120	152	300	250	268	3540	3070	710	342	62	63	45
21	108	148	280	270	317	3170	1920	710	380	60	60	43
22	91	147	250	260	317	2700	1590	710	370	63	60	91
23	86	175	220	250	248	4760	1570	1200	220	70	60	95
24	80	256	190	240	248	4130	2260	2360	115	65	60	66
25	80	258	400	230	263	853	3780	1610	110	78	60	56
26	80	260	630	220	238	733	5770	1150	103	80	58	52
27	78	273	500	210	213	696	6260	1550	102	72	58	51
28	75	229	420	600	218	697	3560	2360	138	65	55	49
29	75	176	640	650	---	710	2860	2090	273	65	55	49
30	63	326	720	400	---	666	3430	2220	234	65	55	46
31	58	---	500	340	---	634	---	2560	---	65	99	---
TOTAL	3744	6368	9865	8535	12698	39106	77527	55075	16360	2573	2034	1846
MEAN	121	212	318	275	454	1261	2584	1777	545	83.0	65.6	61.5
MAX	479	738	720	650	1950	4760	6260	5050	2620	199	116	164
MIN	44	58	70	110	213	218	541	710	102	60	53	40

CAL YR 1982 TOTAL 209342 MEAN 574 MAX 6170 MIN 33
WTR YR 1983 TOTAL 235731 MEAN 646 MAX 6260 MIN 40

01158000 ASHUELOT RIVER BELOW SURRY MOUNTAIN DAM, NEAR KEENE, NH

LOCATION.--Lat 42°59'40", long 72°18'40", Cheshire County, Hydrologic Unit 01080201, on right bank 600 ft downstream from Surry Mountain Dam, 2.5 mi upstream from Sturtevant Brook, 4.5 mi north of Keene, and at mile 34.0.

DRAINAGE AREA.--101 mi^2.

PERIOD OF RECORD.--Discharge: September 1945 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 480.00 ft Corps of Engineers datum.

REMARKS.--Records good. Flow regulated by Surry Mountain Lake (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--38 years, 175 ft^3/s, 23.40 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft^3/s Oct. 28, 1959, gage height, 9.60 ft; minimum daily, 0.4 ft^3/s Sept. 17, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 930 ft^3/s Apr. 13, gage height, 8.41 ft; minimum daily, 3.3 ft^3/s Aug. 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	101	15	57	102	127	81	296	442	652	33	7.5	3.7
2	133	15	59	102	90	122	258	635	640	26	7.4	4.6
3	127	15	59	77	222	360	165	720	475	22	7.2	6.8
4	123	15	58	65	560	503	240	726	396	19	7.2	8.0
5	79	15	57	64	572	509	377	738	413	17	7.2	8.6
6	50	15	57	64	290	352	351	651	376	19	7.0	8.4
7	65	15	57	65	250	303	315	461	337	17	6.7	7.9
8	72	15	53	65	226	262	337	357	293	15	6.3	6.9
9	71	15	46	65	199	310	421	362	241	14	5.8	6.1
10	71	15	36	64	116	282	228	384	197	12	5.3	5.7
11	70	15	29	65	99	202	235	352	168	11	5.3	5.3
12	70	15	24	69	136	188	582	319	140	11	5.6	4.9
13	64	15	24	94	148	239	824	290	119	10	5.9	4.7
14	55	19	24	219	148	412	917	264	117	9.3	5.7	4.4
15	50	53	24	268	146	545	633	248	103	8.9	5.4	4.2
16	49	67	24	263	144	512	299	264	85	8.9	5.1	4.2
17	48	69	38	256	103	479	461	259	74	8.6	4.9	4.2
18	36	67	67	186	84	294	671	234	65	8.5	4.9	4.4
19	26	64	67	89	124	230	670	208	58	8.2	4.8	4.4
20	24	60	67	73	142	219	681	182	50	7.9	4.3	15
21	24	57	84	73	142	150	804	188	44	7.7	4.1	54
22	24	58	91	73	114	241	850	181	36	8.5	4.1	91
23	24	55	73	90	103	580	711	190	29	7.9	4.1	94
24	24	53	65	164	102	751	636	664	24	8.2	3.9	86
25	24	49	65	241	100	844	717	767	21	9.3	3.5	79
26	23	46	65	261	85	866	819	722	22	9.4	3.5	73
27	23	45	83	256	74	819	824	637	26	8.7	3.4	67
28	20	39	108	170	74	839	791	633	31	8.3	3.3	61
29	16	46	136	128	---	814	733	548	30	8.0	3.3	53
30	15	52	144	128	---	687	570	497	35	7.8	3.4	46
31	15	---	117	128	---	398	---	664	---	7.6	3.6	---
TOTAL	1616	1094	1958	4027	4720	13393	16416	13787	5297	377.7	159.7	826.4
MEAN	52.1	36.5	63.2	130	169	432	547	445	177	12.2	5.15	27.5
MAX	133	69	144	268	572	866	917	767	652	33	7.5	94
MIN	15	15	24	64	74	81	165	181	21	7.6	3.3	3.7
MEAN†	41.0	49.4	72.6	129	165	436	553	446	158	10.1	3.96	31.4
CFSM†	.41	.49	.72	1.28	1.63	4.32	5.48	4.42	1.56	.10	.04	.31
IN†	.47	.55	.83	1.48	1.70	4.98	6.11	5.09	1.75	.11	.05	.35

CAL YR 1982 TOTAL 63297.0 MEAN 173 MAX 952 MIN 12 MEAN† 174 CFSM† 1.72 IN† 23.34
WTR YR 1983 TOTAL 63671.8 MEAN 174 MAX 917 MIN 3.3 MEAN† 175 CFSM† 1.73 IN† 23.46

† Adjusted for change in contents in Surry Mountain Lake.

01158600 OTTER BROOK BELOW OTTER BROOK DAM, NEAR KEENE, NH

LOCATION.--Lat 42°56'45", long 72°14'14", Cheshire County, Hydrologic Unit 01080201, on right bank 450 ft downstream from Otter Brook Dam, 2 mi northeast of Keene, 2.4 mi upstream from Minnewawa Brook, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--47.2 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 658.65 ft Corps of Engineers datum.

REMARKS.--Records good. Flow regulated by Otter Brook Lake (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--25 years, 83.3 ft^3/s, 22.70 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 685 ft^3/s Apr. 20, 1959, gage height, 8.59 ft; maximum gage height, 8.61 ft Apr. 26, 1972, Oct 20, 1977; minimum discharge, 0.1 ft^3/s Nov. 28, 1959; minimum daily, 0.3 ft^3/s Sept. 27 to Oct. 2, Oct. 9, 10, 12-20, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 540 ft^3/s Mar. 24, gage height, 8.29 ft; minimum, 0.93 ft^3/s Oct. 6; minimum daily, 1.6 ft^3/s Aug. 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	10	12	48	62	69	42	108	201	316	14	2.2	2.9
2	8.4	12	44	62	47	43	108	447	153	13	2.5	2.9
3	7.6	12	40	62	66	130	117	440	81	11	2.6	3.1
4	7.2	12	38	41	222	201	134	432	62	9.5	2.5	3.1
5	6.9	26	36	32	225	211	141	349	48	9.1	2.4	3.1
6	6.2	41	34	32	168	206	143	297	111	13	2.2	3.1
7	6.2	32	36	32	134	199	151	225	137	14	2.2	3.4
8	14	26	33	42	110	168	187	171	121	11	2.2	3.4
9	25	22	31	46	85	130	206	225	98	9.1	2.1	3.4
10	21	19	23	35	72	128	130	252	83	7.6	1.6	3.4
11	18	17	33	59	71	106	130	196	69	6.2	1.9	3.4
12	15	18	29	81	71	108	362	145	61	5.6	3.1	3.4
13	14	93	18	86	71	145	480	147	53	5.3	3.4	3.4
14	16	121	15	155	53	255	504	117	47	4.5	3.4	3.4
15	18	86	15	171	45	329	359	108	43	4.1	2.8	3.4
16	16	69	26	149	47	233	153	126	41	3.8	3.3	3.4
17	14	56	53	145	62	225	255	130	38	3.3	3.1	3.4
18	13	49	66	98	69	123	421	98	34	2.9	2.9	3.4
19	13	43	66	75	61	155	267	83	30	2.8	3.1	3.4
20	12	38	66	73	58	171	255	83	23	2.5	3.1	3.4
21	13	35	66	44	48	110	477	100	22	2.4	2.9	48
22	13	34	64	41	43	162	443	98	19	4.3	2.8	24
23	13	33	63	46	43	402	222	126	17	5.0	2.8	38
24	12	31	62	80	43	522	209	294	13	4.5	2.9	59
25	11	29	62	130	43	508	380	227	12	4.8	2.9	55
26	11	27	62	143	43	477	394	151	11	4.5	2.9	60
27	11	26	80	141	43	349	233	168	11	3.4	2.9	58
28	11	22	90	95	43	276	206	233	15	2.8	2.9	45
29	11	36	90	75	---	238	206	214	22	2.4	2.9	19
30	11	49	88	73	---	130	194	196	18	2.4	3.3	8.0
31	11	---	71	71	---	113	---	306	---	2.4	3.1	---
TOTAL	389.5	1126	1548	2477	2155	6595	7575	6385	1809	191.2	84.9	479.8
MEAN	12.6	37.5	49.9	79.9	77.0	213	253	206	60.3	6.17	2.74	16.0
MAX	25	121	90	171	225	522	504	447	316	14	3.4	60
MIN	6.2	12	15	32	43	42	108	83	11	2.4	1.6	2.9
MEAN†	12.6	38.2	51.1	79.6	74.6	214	252	200	66.0	5.75	2.18	2.66
CFSM†	.27	.80	1.08	1.69	1.58	4.53	5.34	4.24	1.40	.12	.05	.06
IN†	.31	.90	1.25	1.95	1.65	5.24	5.96	4.89	1.56	.14	.06	.06

CAL YR 1982 TOTAL 32320.5 MEAN 88.5 MAX 515 MIN 3.9 MEAN† 88.6 CFSM† 1.88 IN† 25.50
WTR YR 1983 TOTAL 30815.4 MEAN 84.4 MAX 522 MIN 1.6 MEAN† 83.3 CFSM† 1.76 IN† 23.96

01161000 ASHUELOT RIVER AT HINSDALE, NH

LOCATION.--Lat 42°47'07", long 72°29'12", Cheshire County, Hydrologic Unit 01080201, on left bank 40 ft upstream from highway bridge at Hinsdale, 0.2 mi downstream from dam, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--420 mi^2.

PERIOD OF RECORD.--Discharge: March 1907 to December 1911, July 1914 to current year. Water-quality records: Water years 1953, 1958, 1968.

REVISED RECORDS.--WSP 661: Drainage area. WSP 781: 1907-10, 1914-34. WSP 1301: 1915(M), 1917-19(M),1921-33(M). WSP 1701: 1920.

GAGE.--Water-stage recorder. Datum of gage is 201.32 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 29, 1933, nonrecording gage on highway bridge at same datum.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Surry Mountain Lake 33 mi upstream since 1942 and by Otter Brook Lake 29 mi upstream on Otter Brook since 1958 (Reservoirs in Connecticut River basin). Occasional diurnal fluctuation at low flow by mills upstream; greater regulation prior to 1952. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--73 years, 671 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,600 ft^3/s Mar. 19, 1936, by computation of peak flow over dam; maximum gage height, 20.2 ft Mar. 19, 1936, from floodmarks, backwater from Connecticut River; minimum discharge, 10 ft^3/s Sept. 9, 1953; minimum daily, 12 ft^3/s Sept. 15, 1929.

Maximum discharge since at least 1859, that of Mar. 19, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,780 ft^3/s Apr. 11, gage height, 6.89 ft; minimum 42 ft^3/s Aug. 11. Minimum daily, 48 ft^3/s Aug. 28.

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	129	164	367	465	500	360	1320	1760	2160	194	67	166
2	161	166	336	421	568	850	1160	1910	1900	183	69	137
3	232	168	311	402	1030	1700	1140	2500	1570	184	69	102
4	223	162	299	338	2120	1820	1340	2400	1390	165	67	84
5	213	194	294	298	2090	1680	1440	2280	1500	163	66	75
6	181	323	285	311	1620	1520	1410	2050	1360	195	66	69
7	140	298	285	342	1140	1370	1310	1760	1280	194	66	66
8	146	239	275	327	927	1370	1350	1390	1170	168	64	63
9	229	211	262	310	800	1270	1540	1430	1000	151	61	87
10	274	195	250	311	700	1350	1640	1570	847	137	57	71
11	248	181	236	921	620	1510	3350	1440	771	124	55	65
12	215	173	234	1480	580	1740	3420	1260	666	117	65	92
13	197	362	230	1220	560	2070	2940	1190	562	111	74	161
14	207	784	220	851	530	1810	2640	1090	480	104	69	103
15	216	658	210	700	510	1930	2470	1030	422	97	64	64
16	208	534	244	660	480	2030	1910	1090	375	93	60	53
17	194	438	573	610	470	1950	1850	1120	336	89	58	51
18	179	379	500	580	460	1860	2370	1060	304	83	56	63
19	167	343	450	540	440	1850	2570	917	282	78	58	72
20	161	311	420	520	430	3040	2740	878	255	74	57	71
21	161	282	400	500	420	2950	2700	941	232	70	55	65
22	166	266	380	480	410	2400	2640	934	215	72	54	137
23	164	271	350	460	400	2250	2410	1070	197	73	55	222
24	157	261	340	973	390	2310	2070	2120	179	91	57	209
25	151	250	450	1270	380	2300	2650	2470	165	98	53	197
26	149	235	567	1100	370	2240	2860	2160	156	95	52	180
27	146	234	655	900	370	2160	2610	2110	156	88	49	175
28	142	232	632	800	360	2070	2230	2300	184	80	48	165
29	138	269	638	660	---	2130	1990	2070	247	75	53	148
30	159	345	631	580	---	2020	1880	1870	230	71	75	127
31	166	---	567	520	---	1680	---	2070	---	69	137	---
TOTAL	5619	8928	11891	19850	19675	57590	63950	50240	20591	3586	1956	3340
MEAN	181	298	384	640	703	1858	2132	1621	686	116	63.1	111
MAX	274	784	655	1480	2120	3040	3420	2500	2160	195	137	222
MIN	129	162	210	298	360	360	1140	878	156	69	48	51

CAL YR 1982 TOTAL 300754 MEAN 824 MAX 4640 MIN 91
WTR YR 1983 TOTAL 267216 MEAN 732 MAX 3420 MIN 48

RESERVOIRS IN CONNECTICUT RIVER BASIN

01127850; 01128000. FIRST CONNECTICUT AND SECOND CONNECTICUT LAKES on Connecticut River are operated as a unit for storage of water for power and are used for recreation. The downstream order and usable capacity of each are as follows: Second Lake, 12 mi northeast of Pittsburg, NH, 506,000,000 ft^3; First Lake, 5.6 mi northeast of Pittsburg, NH, 3,330,000,000 ft^3. Records furnished by New England Power Co.

01129000. LAKE FRANCIS on Connecticut River at Pittsburg, NH, completed in March 1940, used for storage of water for power and for recreation, has usable capacity of 4,326,000,000 ft^3. Records furnished by New Hampshire Water Resources Board.

01132000; 01132500. MOORE AND COMERFORD RESERVOIRS on Connecticut River are operated as a unit for storage of water for hydroelectric power development and are used for recreation. The downstream order and usable capacity of each are as follows: Moore Reservoir, 4.5 mi northwest of Littleton, NH, filled in April 1956, 4,970,000,000 ft^3; Comerford Reservoir, 5 mi northeast of Monroe, NH, completed in 1930, 1,279,000,000 ft^3. Records furnished by New England Power Co.

01141000. UNION VILLAGE RESERVOIR on Ompompanoosuc River, 0.3 mi north of Union Village, VT, completed in 1949 for flood control, has usable capacity of 1,660,000,000 ft^3. Records furnished by Corps of Engineers.

01148000; 01150000. LAKES AND PONDS IN MASCOMA RIVER BASIN are operated as a unit for storage of water for power and are used for recreation. The reservoirs and usable capacity of each are as follows: 01148000 Goose Pond, 5.2 mi northeast of Mascoma, NH, 509,000,000 ft^3; Grafton Pond, 8.5 mi southeast of Mascoma, 144,000,000 ft^3; Crystal Lake, 5.8 mi southeast of Mascoma, 75,000,000 ft^3; 01150000 Mascoma Lake at Mascoma, 337,000,000 ft^3; total usable capacity of the four reservoirs, 1,060,000,000 ft^3. Records furnished by New Hampshire Water Resources Board.

01151400. NORTH HARTLAND RESERVOIR on Ottauquechee River at North Hartland, VT, completed in 1961, used for flood control and recreation, has usable capacity of 3,110,000,000 ft^3. Records furnished by Corps of Engineers.

01152000. SUNAPEE LAKE on Sugar River at Sunapee, NH, used for recreation and storage of water for power, has usable capacity of 862,000,000 ft^3. Records furnished by New Hampshire Water Resources Board.

01152900. NORTH SPRINGFIELD RESERVOIR on Black River at North Springfield, VT, completed in 1960, used for flood control and recreation, has usable capacity of 2,230,000,000 ft^3. Records furnished by Corps of Engineers.

01155400. BALL MOUNTAIN RESERVOIR on West River, 2 mi north of Jamaica, VT, completed in 1961, used for food control and recreation, has usable capacity of 2,380,000,000 ft^3. Records furnished by Corps of Engineers.

01155900. TOWNSHEND RESERVOIR on West River, 1.8 mi northwest of Townshend, VT, completed in 1961, used for flood control and recreation, has usable capacity of 1,460,000,000 ft^3. Records furnished by Corps of Engineers.

01157500. SURRY MOUNTAIN LAKE on Ashuelot River, 4.5 mi north of Keene, NH, completed in 1942, used for flood control and recreation, has usable capacity of 1,420,000,000 ft^3. Records furnished by Corps of Engineers.

01158550. OTTER BROOK LAKE on Otter Brook, 2.5 mi northeast of Keene, NH completed in 1958, used for flood control and recreation, has usable capacity of 798,000,000 ft^3. Records furnished by Corps of Engineers.

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	First and Second Connecticut Lakes	Lake Francis	Moore and Comerford Reservoirs	Union Village Reservoir	Lakes and Ponds in Mascoma River basin	North Hartland Reservoir
Sept. 30, 1982	2760.3	3128.0	5494.5	1.4	751.7	124.0
Oct. 31	2511.4	3047.7	5541.4	1.4	679.4	123.0
Nov. 30	2692.7	3359.2	5868.4	22.6	701.6	127.0
Dec. 31	2104.9	3602.5	5786.3	15.8	630.5	122.0
Jan. 31, 1983	2072.2	2616.5	5380.2	19.8	671.2	127.0
Feb. 28	1671.4	2000.0	3121.2	18.6	664.9	117.0
Mar. 31	1565.3	2056.9	1938.7	15.2	914.5	126.0
Apr. 30	2681.3	3541.0	5035.0	6.6	1130.0	155.5
May 31	3430.5	4235.8	5819.6	9.8	1125.5	128.0
June 30	3397.2	3500.0	5691.9	2.0	1068.9	90.5
July 31	2980.3	3078.9	5391.7	1.4	994.4	97.4
Aug. 31	2923.7	2894.1	5330.1	1.9	984.2	80.0
Sept. 30	2416.5	2580.2	4889.7	1.4	971.5	104.6

Date	Sunapee Lake	North Springfield Reservoir	Ball Mountain Reservoir	Townshend Reservoir	Surry Mountain Lake	Otter Brook Lake
Sept. 30, 1982	*326	22.5	95.7	34.8	58.6	36.8
Oct. 31	221	21.6	15.0	34.4	28.8	36.8
Nov. 30	182	21.6	25.4	38.3	62.2	38.6
Dec. 31	126	24.0	29.0	40.8	87.4	41.8
Jan. 31, 1983	258	23.3	20.8	38.6	86.0	41.0
Feb. 28	377	24.7	20.6	36.6	78.2	35.4
Mar. 31	515	77.5	86.9	41.4	88.8	39.6
Apr. 30	666	42.1	310.4	57.3	103.9	38.2
May 31	711	32.7	148.4	35.8	108.1	22.8
June 30	619	24.0	103.9	37.6	61.0	37.6
July 31	498	21.8	73.6	35.2	55.3	36.5
Aug. 31	411	23.3	91.7	35.8	52.1	35.8
Sept. 30	275	21.8	94.9	35.2	62.2	1.2

* Correction--Erroneously published in the 1982 report as 496.

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^2.

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^3/s, 30.29 in/yr.

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

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

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

Minimum discharge, 54 ft^3/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

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^2.

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^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,450 ft^3/s Sept. 21, 1938, gage height, 12.04 ft, from rating curve extended above 2,800 ft^3/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^3/s Sept. 27, 1932; minimum daily, 21 ft^3/s Sept. 22, 23, 1964, July 12, 1965.

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

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^2.

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^3/s, 18.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft^3/s July 20, 1945, gage height, 24.36 ft, from high-water mark in well, from rating curve extended above 2,600 ft^3/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^3/s Aug. 8, 1965, Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 25	1630	2620	11.40	May 4	1115	*5020	15.41

Minimum daily discharge, 3.1 ft^3/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

04282000 OTTER CREEK AT CENTER RUTLAND, VT

LOCATION.--Lat 43°36'13", long 73°00'49", Rutland County, Hydrologic Unit 02010002, on right bank 200 ft downstream from dam, 500 ft upstream from bridge on U.S. Highway 4 at Center Rutland, 1.2 mi downstream from East Creek, and 1.5 mi west of Rutland.

DRAINAGE AREA.--307 mi^2.

PERIOD OF RECORD.--Discharge: May 1928 to current year.
Water-quality records: Water years 1955, 1971.

REVISED RECORDS.--WSP 1084: 1929.

GAGE.--Water-stage recorder. Datum of gage is 474.80 ft National Geodetic Vertical Datum of 1929; prior to Oct. 1, 1964, datum was 1.00 ft higher. Prior to July 22, 1929, nonrecording gage at same site.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplants and Chittenden Reservoir 14 mi upstream on East Creek, usable capacity, 819,800,000 ft^3. Prior to June 3, 1947, regulation by East Pittsford Reservoir, usable capacity, 150,000,000 ft^3. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--55 years, 551 ft^3/s, 24.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,700 ft^3/s Sept. 22, 1938, gage height, 13.45 ft, present datum, from rating curve extended above 7,400 ft^3/s on basis of computation of peak flow over dam; minimum daily, 45 ft^3/s Sept. 21, 1947, Aug. 7, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 25	1400	4960	9.36	May 3	0745	*6030	10.32

Minimum daily discharge, 58 ft^3/s Oct. 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	116	109	417	290	376	311	559	3180	1410	192	672	136
2	78	143	334	280	348	386	558	3850	1020	154	657	122
3	58	129	267	260	834	497	629	5690	828	150	405	108
4	84	116	228	200	1320	425	717	4990	797	147	236	84
5	90	334	211	170	770	389	740	3340	898	206	226	106
6	82	332	270	250	470	389	713	2230	762	225	220	103
7	75	203	292	240	460	474	803	1560	1070	213	183	76
8	157	181	256	235	430	512	1080	1280	865	209	185	81
9	162	155	243	225	400	488	1330	1810	695	137	442	72
10	211	145	166	220	370	506	1430	1780	606	131	244	80
11	182	118	175	516	360	681	2410	1550	505	153	312	90
12	159	146	150	793	310	637	2500	1410	429	150	994	99
13	138	354	160	370	280	557	1890	1210	440	121	905	81
14	211	499	165	330	310	493	1590	1080	429	132	473	76
15	216	386	170	290	320	544	1580	992	397	114	304	65
16	241	301	642	280	300	636	1420	1090	431	106	213	74
17	228	260	1200	300	320	737	1510	928	467	89	162	78
18	157	243	597	290	300	707	1440	813	460	102	157	86
19	136	176	379	280	270	1220	1310	734	443	132	144	105
20	125	143	350	280	250	2460	1610	781	397	108	123	102
21	120	132	330	270	260	2110	1690	1030	321	96	116	126
22	138	198	290	270	316	1660	1420	762	277	127	118	286
23	153	344	250	390	340	1160	1690	841	252	130	136	271
24	119	373	250	1100	337	880	2320	989	206	113	137	178
25	111	332	337	800	332	710	4660	816	189	152	117	121
26	100	255	708	580	271	596	4410	697	190	148	108	123
27	111	220	681	485	227	550	3320	852	265	132	179	135
28	97	154	533	395	291	575	2570	895	251	105	314	120
29	100	274	563	346	---	700	2500	711	239	104	202	127
30	84	473	483	331	---	608	2760	1020	236	83	156	97
31	79	---	334	381	---	564	---	1650	---	103	153	---
TOTAL	4118	7228	11431	11447	11172	23162	53159	50561	15775	4264	8993	3408
MEAN	133	241	369	369	399	747	1772	1631	526	138	290	114
MAX	241	499	1200	1100	1320	2460	4660	5690	1410	225	994	286
MIN	58	109	150	170	227	311	558	697	189	83	108	65
CFSM	.43	.79	1.20	1.20	1.30	2.43	5.77	5.31	1.71	.45	.95	.37
IN.	.50	.88	1.39	1.39	1.35	2.81	6.44	6.13	1.91	.52	1.09	.41

CAL YR 1982 TOTAL 173552 MEAN 475 MAX 4960 MIN 57 CFSM 1.55 IN 21.03
WTR YR 1983 TOTAL 204718 MEAN 561 MAX 5690 MIN 58 CFSM 1.83 IN 24.81

04282500 OTTER CREEK AT MIDDLEBURY, VT

LOCATION.--Lat 44°00'47", long 73°10'06", Addison County, Hydrologic Unit 02010002, on right bank 150 ft upstream from highway bridge in Middlebury and 3.5 mi downstream from Middlebury River.

DRAINAGE AREA.--628 mi^2.

PERIOD OF RECORD.--Discharge: April 1903 to April 1907, October 1910 to January 1920, October 1928 to current year.
Water-quality records: Water years 1954, 1967-74.

REVISED RECORDS.--WSP 434: 1903-4. WSP 684: 1913(M), drainage area. WSP 1114: 1913. WSP 1207: 1929, 1931.

GAGE.--Water-stage recorder. Datum of gage is 335.75 ft National Geodetic Vertical Datum of 1929. Apr. 1, 1903, to Apr. 30, 1907, and Oct. 5, 1910, to Jan. 31, 1920, nonrecording gage at site 1,800 ft upstream at datum 10 ft lower, and Oct. 1, 1928, to Oct. 17, 1933, at present datum.

REMARKS.--Records good except those for winter period which are fair and period of no gage-height record Oct. 1-31, which are poor. Some regulation by Chittenden Reservoir, usable capacity, 819,800,000 ft^3 on East Creek. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--67 years (water years 1904-06, 1911-19, 1929-83), 987 ft^3/s, 21.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s Mar. 20, 21, 1936, gage height, 10.3 ft; minimum daily, 92 ft^3/s Aug. 9, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 13,600 ft^3/s Nov. 4, 1927, gage height, 13.3 ft, present datum, at site 1,800 ft upstream, from rating curve extended above 9,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,480 ft^3/s May 6, gage height, 7.52 ft; minimum daily, 120 ft^3/s Oct. 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	240	138	788	647	660	569	1310	4860	2050	401	494	304
2	170	187	789	572	659	646	1210	4880	2080	322	996	280
3	120	247	696	529	1200	734	1200	5100	2090	298	1040	246
4	180	290	576	464	1810	837	1360	5370	2070	251	812	229
5	200	444	438	402	1770	813	1420	5940	2000	239	553	213
6	170	578	418	463	1710	730	1410	6430	1940	380	385	210
7	160	512	531	501	1520	813	1410	6380	2080	438	312	211
8	320	401	553	500	1200	1050	1550	5910	2000	396	305	199
9	340	351	552	480	1000	1180	1690	5440	1940	351	414	193
10	440	298	460	494	1000	1210	1790	5060	1800	262	662	190
11	380	266	360	712	901	1390	2130	4670	1570	243	523	192
12	330	294	280	1210	832	1440	2230	4300	1240	266	964	202
13	300	360	250	1250	707	1350	2320	3980	920	235	1340	219
14	430	560	310	840	589	1250	2430	3760	817	235	1270	211
15	460	699	330	520	660	1270	2510	3560	781	227	932	187
16	520	621	560	420	695	1520	2570	3470	747	219	647	179
17	480	489	1390	390	658	1720	2680	3270	845	214	424	178
18	350	494	1690	380	649	1730	2760	3050	1010	195	361	185
19	300	417	1250	370	614	1890	2790	2860	981	198	334	193
20	270	343	820	360	636	2430	2850	2670	867	209	311	195
21	250	302	650	360	501	2410	2920	2490	720	230	283	205
22	290	306	620	350	532	2470	2910	2330	578	225	261	296
23	330	477	530	350	616	2500	2940	2180	494	203	272	449
24	250	602	470	977	675	2500	3020	2060	417	201	275	432
25	230	590	520	1440	677	2480	3400	1970	401	230	269	274
26	200	548	858	1520	606	2380	3580	1850	339	302	251	258
27	220	466	1160	1430	505	2190	3680	1910	347	282	246	277
28	190	386	1160	1190	484	1960	4060	1870	460	211	330	212
29	210	375	1090	916	---	1800	4500	1810	449	209	420	209
30	160	602	1020	678	---	1650	4730	1770	483	214	378	210
31	130	---	854	618	---	1480	---	1910	---	211	316	---
TOTAL	8620	12643	21973	21333	24066	48392	75360	113110	34516	8097	16380	7038
MEAN	278	421	709	688	860	1561	2512	3649	1151	261	528	235
MAX	520	699	1690	1520	1810	2500	4730	6430	2090	438	1340	449
MIN	120	138	250	350	484	569	1200	1770	339	195	246	178
CFSM	.44	.67	1.13	1.10	1.37	2.49	4.00	5.81	1.83	.42	.84	.37
IN.	.51	.75	1.30	1.26	1.43	2.87	4.46	6.70	2.04	.48	.97	.42

CAL YR 1982 TOTAL 332617 MEAN 911 MAX 4070 MIN 105 CFSM 1.45 IN 19.70
WTR YR 1983 TOTAL 391528 MEAN 1073 MAX 6430 MIN 120 CFSM 1.71 IN 23.19

04284000 JAIL BRANCH AT EAST BARRE, VT

LOCATION.--Lat 44°09'30", long 72°26'44", Washington County, Hydrologic Unit 02010003, on right bank 1,400 ft upstream from highway bridge, at East Barre, 1,400 ft downstream from East Barre Detention Reservoir, and 4.2 mi upstream from mouth.
DRAINAGE AREA.--38.9 mi^2.
PERIOD OF RECORD.--August 1920 to September 1923, October 1933 to current year. October 1933 monthly discharge only, published in WSP 1307. Prior to October 1922, published as Jail Brook at East Barre.
REVISED RECORDS.--WSP 564: 1922. WSP 1034: Drainage area. WSP 1307: 1921-23(M).
GAGE.--Water-stage recorder. Datum of gage is 1,107.25 ft National Geodetic Vertical Datum of 1929. Aug. 14, 1920, to Sept. 30, 1923, nonrecording gage at site 0.1 mi downstream at different datum. Nov. 1, 1933, to Jan. 25, 1935, nonrecording gage and Jan. 26, 1935, to Aug. 7, 1972, water-stage recorder at site 1,500 ft downstream. Datum of gage was 1,071.59 ft National Geodetic Vertical Datum of 1929, Nov. 1, 1933, to Sept. 30, 1964, and 1,069.59 ft NGVD Oct. 1, 1964, to Aug. 7, 1972 (levels by Corps of Engineers).
REMARKS.--Records good except those for winter period, which are poor. Discharge affected by East Barre Detention Reservoir since 1935 (Reservoirs in Winooski River basin). Prior to 1964, occasional diurnal fluctuation at low flow caused by mill upstream. Diversion from reservoir on Orange Brook, a tributary upstream, for city of Barre. Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--53 years, 54.8 ft^3/s, 19.13 in/yr, adjusted for storage.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft^3/s Oct. 1, 1920, gage height, 9.50 ft, from graph based on gage readings, site and datum then in use, from rating curve extended above 900 ft^3/s; minimum, 0.1 ft^3/s Aug. 18, 1950, Aug. 3, 4, 31, Sept. 1, 3, 1953. Maximum discharge since construction of East Barre Detention Reservoir in 1935, 634 ft^3/s Apr. 19, 1969, gage height, 3.31 ft, site and datum then in use; maximum gage height, 9.48 ft Jan. 7, 1973, ice jam.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 481 ft^3/s Apr. 26, gage height, 4.63 ft; maximum gage height, 5.97 ft; Jan. 27, ice jam; minimum, 3.9 ft^3/s Oct. 7, 8.

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	5.5	26	22	29	18	41	435	184	18	52	32
2	4.9	8.5	20	20	26	21	62	400	103	18	48	22
3	4.9	12	16	19	140	25	63	418	66	20	24	18
4	4.4	9.6	15	14	145	17	71	461	85	18	14	15
5	4.2	42	14	11	78	17	86	457	103	15	12	14
6	4.2	27	13	13	66	18	116	396	72	25	11	13
7	3.9	16	12	14	58	32	144	203	306	21	9.7	11
8	26	12	12	13	50	34	245	158	128	16	8.2	9.7
9	30	10	11	12	46	31	257	315	68	16	72	9.7
10	21	8.9	10	11	42	42	224	216	56	16	21	10
11	12	8.1	9.0	130	38	82	213	133	50	13	16	12
12	8.3	7.8	8.8	44	35	62	217	107	46	9.7	139	16
13	7.5	34	8.8	40	29	47	214	89	42	9.7	37	13
14	7.5	24	9.8	35	23	42	270	79	38	8.2	23	11
15	7.5	16	12	31	22	44	274	69	34	6.8	17	9.7
16	8.3	11	70	28	22	58	215	206	29	5.8	14	9.7
17	8.3	9.3	90	26	21	61	181	131	29	5.0	12	7.7
18	8.3	8.3	60	24	21	56	148	80	53	4.8	12	10
19	7.5	7.5	45	23	20	130	117	65	79	4.8	14	10
20	6.4	7.5	38	22	20	250	145	69	44	4.8	12	9.7
21	6.1	7.5	33	21	19	300	178	65	33	4.3	11	7.7
22	6.1	8.4	31	20	20	170	161	58	27	11	9.7	40
23	5.2	24	29	28	21	92	219	64	24	9.2	18	21
24	4.6	24	26	120	20	84	291	68	21	8.2	13	15
25	4.6	19	22	80	19	70	467	69	28	15	11	13
26	5.0	14	60	60	18	62	474	56	28	9.7	10	11
27	5.5	13	64	45	17	54	471	206	33	7.2	10	10
28	5.5	12	21	40	17	43	461	172	33	6.2	38	10
29	5.5	17	25	37	---	43	461	87	25	6.2	71	10
30	5.5	36	24	34	---	42	454	147	21	6.2	150	10
31	5.5	---	23	32	---	42	---	271	---	6.2	50	---
TOTAL	249.1	459.9	858.4	1069	1082	2089	6940	5750	1888	345.0	959.6	410.9
MEAN	8.04	15.3	27.7	34.5	38.6	67.4	231	185	62.9	11.1	31.0	13.7
MAX	30	42	90	130	145	300	474	461	306	25	150	40
MIN	3.9	5.5	8.8	11	17	17	41	56	21	4.3	8.2	7.7
MEAN†	8.67	15.9	27.5	34.6	38.7	67.9	246	175	58.0	11.1	31.6	13.5
CFSM†	.22	.41	.71	.89	.99	1.75	6.32	4.50	1.49	.29	.81	.35
IN†	.26	.46	.82	1.03	1.04	2.01	7.07	5.19	1.66	.32	.94	.39

CAL YR 1982 TOTAL 21269.0 MEAN 58.3 MAX 571 MIN 3.5 MEAN† 58.1 CFSM† 1.49 IN† 20.30
WTR YR 1983 TOTAL 22100.9 MEAN 60.6 MAX 474 MIN 3.9 MEAN† 60.7 CFSM† 1.56 IN† 21.18

† Adjusted for change in contents in East Barre Detention Reservoir.

04285500 NORTH BRANCH WINOOSKI RIVER AT WRIGHTSVILLE, VT

LOCATION.--Lat 44°17'58", long 72°34'45", Washington County, Hydrologic Unit 02010003, on right bank at Wrightsville, 0.8 mi downstream from Wrightsville Detention Reservoir, and 3.5 mi upstream from mouth.

DRAINAGE AREA.--69.2 mi^2.

PERIOD OF RECORD.--Discharge: October 1933 to current year.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1237: 1937: 1934-39.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 550.53 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Nov. 21, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period and period of shifting control Oct. 1 to Dec. 7, June 6 to Sept. 30, which are fair. Discharge affected since 1935 by Wrightsville Detention Reservoir (Reservoirs in Winooski River basin). Occasional diurnal fluctuation at low flow caused by small mill upstream; more frequent diurnal fluctuation prior to 1968. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--50 years, 134 ft^3/s, 26.30 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft^3/s Apr. 12, 1934, gage height, 6.53 ft, from rating curve extended above 920 ft^3/s; minimum daily, 0.2 ft^3/s Aug. 13, 1941. Maximum discharge since construction of Wrightsville Detention Reservoir in 1935, 1,040 ft^3/s Mar. 21, 1936, gage height, 4.32 ft; maximum gage height, 5.43 ft Mar. 12, 1936, ice jam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 17,200 ft^3/s Nov. 3, 1927, by computation of peak flow over dam 0.8 mi above gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 881 ft^3/s May 3, gage height, 3.82 ft; minimum daily, 3.8 ft^3/s July 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	38	22	155	84	64	42	96	757	425	11	34	23
2	44	58	140	80	60	45	109	781	398	9.6	81	14
3	40	79	120	62	150	48	135	833	344	9.6	59	10
4	35	56	108	58	346	50	171	848	253	8.8	36	8.4
5	31	205	93	56	325	52	216	829	194	7.3	25	7.7
6	29	223	88	50	170	54	260	799	166	7.7	40	7.3
7	28	100	85	49	100	76	301	764	314	9.6	40	7.0
8	168	70	70	48	90	99	349	725	289	8.8	28	5.9
9	131	57	63	47	82	89	413	703	157	10	225	5.3
10	68	48	39	46	74	93	458	678	120	13	88	5.3
11	46	43	56	205	66	210	466	644	97	8.4	47	5.9
12	37	50	52	331	62	183	475	605	78	7.0	286	6.3
13	33	135	43	206	58	139	477	559	65	6.3	300	6.3
14	33	125	38	96	52	119	490	507	53	4.7	100	5.3
15	32	85	44	66	50	137	519	449	44	5.6	46	5.3
16	38	66	155	64	48	183	516	404	39	6.3	36	5.0
17	47	56	383	60	47	176	512	353	38	5.3	30	7.0
18	41	50	327	58	46	169	497	239	42	4.4	22	13
19	35	46	145	56	45	244	465	124	46	3.8	20	13
20	32	44	100	54	44	410	443	120	37	4.1	17	9.6
21	30	43	90	52	44	475	437	128	28	4.4	13	8.8
22	29	49	70	50	44	470	416	107	22	12	11	100
23	27	97	60	49	43	435	418	131	18	14	13	63
24	24	157	64	190	43	374	454	252	15	16	12	37
25	22	155	75	199	43	278	562	273	14	28	10	22
26	22	105	231	130	42	129	651	163	20	22	8.8	16
27	21	85	207	95	42	113	663	270	22	10	8.8	13
28	20	57	159	75	42	111	681	335	29	7.3	10	11
29	19	84	185	70	---	107	710	306	20	6.6	8.4	10
30	19	170	140	67	---	94	730	264	13	7.3	8.0	9.2
31	19	---	86	64	---	87	---	383	---	7.3	20	---
TOTAL	1238	2620	3671	2817	2322	5291	13090	14333	3400	286.2	1683.0	460.6
MEAN	39.9	87.3	118	90.9	82.9	171	436	462	113	9.23	54.3	15.4
MAX	168	223	383	331	346	475	730	848	425	28	300	100
MIN	19	22	38	46	42	42	96	107	13	3.8	8.0	5.0
MEAN†	40.0	88.6	118	90.6	82.8	171	532	383	99.6	9.27	54.4	15.2
CFSM†	.58	1.28	1.71	1.31	1.20	2.47	7.69	5.53	1.44	.13	.79	.22
IN†	.67	1.43	1.96	1.51	1.25	2.85	8.57	6.38	1.61	.15	.91	.25

CAL YR 1982 TOTAL 45910.8 MEAN 126 MAX 825 MIN 6.6 MEAN† 126 CFSM† 1.82 IN† 24.69
WTR YR 1983 TOTAL 51211.8 MEAN 140 MAX 848 MIN 3.8 MEAN† 140 CFSM† 2.02 IN† 27.53

† Adjusted for change in contents in Wrightsville Detention Resevoir.

RESERVOIRS IN WINOOSKI RIVER BASIN ABOVE MONTPELIER, VT

04283500 EAST BARRE DETENTION RESERVOIR.--Lat 44°09'18", long 72°26'42", Washington County, Hydrologic Unit 0201003, at dam on Jail Branch at East Barre, 4.5 mi upstream from mouth. DRAINAGE AREA, 38.8 mi². PERIOD OF RECORD, February 1936 (in WSP 1307), March and April 1936 (in WSP 798), May 1936 to August 1938 (in WSP 1307), September 1938 (in WSP 867), October 1938 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 30, 1960, nonrecording gage, and Aug. 30 to Sept. 30, 1960, water-stage recorder, at present site at datum 1,127.9 ft National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam completed by Corps of Engineers in 1935 for flood control. Usable capacity, 525,000,000 ft³ between elevation 1,124.9 ft (bottom of outlet opening) and 1,165.0 ft (crest of spillway). Dam has no gates; below elevation 1,165.0 ft, outflow from reservoir is dependent on capacity of outlet opening near base of dam. Outlet-opening enlargement and reservoir-construction modifications completed in November 1959. Size of opening since enlargement, height, 7 ft and average width, 3.7 ft. Figures given herein represent usable contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,163.9 ft, present datum, Mar. 22, 1936; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,143.57 ft May 4; minimum not determined.

04285000 WRIGHTSVILLE DETENTION RESERVOIR.--Lat 44°18'38", long 72°34'31", Washington County, Hydrologic Unit 02010003, at dam on North Branch Winooski River at Wrightsville, 0.3 mi downstream from Long Meadow Brook, and 4.2 mi upstream from mouth. DRAINAGE AREA, 66.5 mi². PERIOD OF RECORD, November 1935 to Februry 1936 (in WSP 1307), March to May 1936 (in WSP 798), June 1936 to August 1938 (in WSP 1307), September 1938 (in WSP 867), October 1938 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to July 28, 1960, nonrecording gage, and July 28 to Sept. 30, 1960, water-stage recorder, at present site at datum 612.75 ft National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam completed by Corps of Engineers in 1935 for flood control; modification of intake-structure works to create a recreational pool completed in June 1965. Usable capacity for recreation, 22,000,000 ft³ between elevations 612.75 ft (bottom of outlet opening) and 620.00 ft; for flood control, 851,500,000 ft³ between elevations 620.00 ft and 685.00 ft (crest of spillway); total usable capacity, 873,500,000 ft³. Dam has no gates; below elevation 685.00 ft, outflow from reservoir is dependent on capacity of outlet opening, 5.25 ft square near base of dam. Figures given herein represent usable contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 676.4 ft, present datum, Mar. 22, 1936, from graph based on gage readings; minimum observed, 613.00 ft Aug. 17, 1949, and Aug. 17-19, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 660.40 ft May 4; minimum, 619.94 ft July 18.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	Elevation (feet)	Contents (millions of cubic feet)	Change in contents: Millions of cubic feet	Change in contents: Equivalent, cubic feet per second
		04283500 East Barre Detention Reservoir		
Sept. 30	--	3.0	--	--
Oct. 31	1129.33	4.7	+1.7	+.63
Nov. 30	1130.47	6.2	+1.5	+.58
Dec. 31	1130.23	5.8	-.4	-.15
CAL YR 1982	--	--	-3.8	-.12
Jan. 31	1130.47	6.2	+.4	+.15
Feb. 28	1130.62	6.4	+.2	+.08
Mar. 31	1130.80	6.6	+.2	+.07
Apr. 30	1141.26	45.6	+39.0	+15.0
May 31	1136.86	18.0	-27.6	-10.3
June 30	1129.77	5.3	-12.7	-4.90
July 31	1129.59	5.1	-.2	-.07
Aug. 31	1130.86	6.7	+1.6	+.60
Sept. 30	1130.40	6.1	-.6	-.23
WTR YR 1983	--	--	+3.1	+.10
		04285000 Wrightsville Detention Reservoir		
Sept. 30	620.19	22.8	--	--
Oct. 31	620.22	22.9	+.1	+.04
Nov. 30	621.08	26.4	+3.4	+1.31
Dec. 31	620.70	24.8	-1.5	-.56
CAL YR 1982	--	--	+.8	+.03
Jan. 31	620.50	24.0	-.8	-.30
Feb. 28	*620.40	23.6	-.4	-.17
Mar. 31	620.71	24.8	+1.2	+.45
Apr. 30	651.08	271.8	+247.0	+95.3
May 31	627.73	58.1	-213.7	-79.8
June 30	620.10	22.4	-35.7	-13.8
July 31	620.11	22.5	+.1	+.04
Aug. 31	620.19	22.8	+.3	+.11
Sept. 30	620.12	22.5	-.3	+.12
WTR YR 1983	--	--	-.3	-.01

* Estimated.

04286000 WINOOSKI RIVER AT MONTPELIER, VT

LOCATION.--Lat 44°15'23", long 72°35'36", Washington County, Hydrologic Unit 02010003, on right bank 0.4 mi upstream from Dog River and 1 mi downstream from depot at Montpelier.
DRAINAGE AREA.--397 mi^2.
PERIOD OF RECORD.--May 1909 to June 1914 (fragmentary), July 1914 to September 1923, August 1928 to current year.
REVISED RECORDS.--WSP 424: 1915. WSP 894: Drainage area. WSP 1437: 1912-14(M), 1915-18, 1919(M), 1920, 1921(M), 1922-23, 1929, 1933, 1934(M), 1936, 1937(M), 1938, 1946(M). WDR MA-NH-RI-VT-72-1: 1969(M), 1970(P), 1971(M).
GAGE.--Water-stage recorder. Datum of gage is 499.99 ft National Geodetic Vertical Datum of 1929. Prior to June 16, 1914, nonrecording gage at site 0.9 mi upstream at different datum. June 16 to July 3, 1914, nonrecording gage at present site and datum.
REMARKS.--Records good except those for winter period, which are fair. Flow regulated by several small powerplants upstream, by Peacham Pond and, since 1926, by Mollys Falls Reservoir, combined usable capacity, 492,000,000 ft^3, which regulate runoff from 24 mi^2, and by East Barre and Wrightsville Detention Reservoirs since 1935 (Reservoirs in Winooski River basin). See table below for monthend contents in Peacham Pond and Mollys Falls Reservoir. Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--64 years (water years 1915-23, 1929-83), 589 ft^3/s.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft^3/s Apr. 7, 1912, gage height, 17.31 ft, from floodmarks, present datum, from rating curve extended above 6,900 ft^3/s; maximum gage height, 17.55 ft June 30, 1973; minimum daily discharge, 17 ft^3/s Sept. 3, 1933.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 57,000 ft^3/s Nov. 3, 1927, gage height, 27.1 ft, from rating curve extended above 6,900 ft^3/s.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 25	0045	4630	8.92	May 4	0315	*7310	11.65

Minimum daily discharge, 79 ft^3/s Sept. 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	127	128	444	300	370	280	611	2790	1740	241	352	275
2	127	275	382	240	340	320	711	2840	1350	213	789	191
3	121	326	340	210	940	400	815	3660	1130	169	459	151
4	114	263	309	180	2000	370	1070	5740	1050	162	271	126
5	106	767	278	200	920	320	1160	3570	973	153	232	117
6	101	717	303	280	560	290	1340	2880	857	220	292	110
7	134	348	347	290	470	430	1500	2350	1940	185	262	139
8	494	274	292	270	510	640	1900	2070	1350	161	191	130
9	480	269	250	270	490	500	1900	2770	935	158	914	123
10	267	245	190	260	430	520	1900	2380	758	163	461	129
11	196	236	260	1260	410	1320	2000	2070	569	137	309	98
12	166	220	200	982	420	924	2200	1870	464	130	1630	106
13	152	442	180	560	350	569	2080	1650	438	126	1020	120
14	197	400	200	400	320	517	2250	1510	409	116	450	114
15	237	278	230	390	400	640	2280	1350	398	107	275	84
16	240	240	440	240	380	871	2020	1750	360	103	237	79
17	183	220	900	250	370	863	1980	1480	468	97	182	84
18	170	207	600	300	370	890	1870	1110	523	91	217	106
19	167	180	400	340	350	2040	1630	857	577	88	204	105
20	140	174	290	330	260	3210	1780	850	355	83	183	92
21	134	174	280	340	270	2220	1910	819	285	114	134	116
22	127	198	270	320	320	1890	1790	651	249	166	128	348
23	165	348	260	250	310	1400	1910	702	221	125	174	263
24	119	437	250	1050	310	1140	2400	946	191	143	159	200
25	115	422	230	940	290	950	4010	1010	200	193	144	130
26	139	310	639	700	280	674	3660	787	221	149	134	115
27	141	273	620	500	260	572	3000	1350	252	115	125	142
28	119	218	470	440	230	604	2890	1460	267	122	262	141
29	168	293	580	420	---	686	2810	1040	282	121	145	100
30	168	492	460	370	---	577	2820	1140	256	120	308	94
31	110	---	400	360	---	536	---	1770	---	104	302	---
TOTAL	5424	9374	11294	13242	12930	27163	60197	57222	19068	4375	10945	4128
MEAN	175	312	364	427	462	876	2007	1846	636	141	353	138
MAX	494	767	900	1260	2000	3210	4010	5740	1940	241	1630	348
MIN	101	128	180	180	230	280	611	651	191	83	125	79
(†)	347.9	340.3	316.0	316.0	316.0	152.8	412.2	447.0	417.4	426.1	432.4	406.2

CAL YR 1982 TOTAL 207325 MEAN 568 MAX 6630 MIN 87
WTR YR 1983 TOTAL 235362 MEAN 645 MAX 5740 MIN 79

† Monthend contents, in millions of cubic feet, in Peacham Pond and Molly Falls Reservoir; records furnished by Green Mountain Power Corp.

04287000 DOG RIVER AT NORTHFIELD FALLS, VT

LOCATION.--Lat 44°10'58", long 72°38'27", Washington County, Hydrologic Unit 02010003, on right bank 1 mi downstream from Northfield Falls and 1.2 mi downstream from Cox Branch.

DRAINAGE AREA.--76.1 mi^2.

PERIOD OF RECORD.--Discharge: October 1934 to current year. October 1934 monthly discharge only, published in WSP 1307.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1237: 1935-37.

GAGE.--Water-stage recorder. Datum of gage is 603.00 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter period, which are fair. Infrequent diurnal fluctuation at low flow by powerplant upstream; regulation much greater prior to 1955. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--49 years, 122 ft^3/s, 21.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s June 30, 1973, gage height, 11.57 ft, from rating curve extended above 1,500 ft^3/s on basis of computation of flow over dam at gage height 8.49 ft and slope-area measurements at gage heights 8.96 ft, 11.53 ft, and 11.57 ft; minimum, 4.3 ft^3/s Aug. 31, Sept. 7, 1942.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 24	2330	2230	5.39	May 4	0215	*2500	5.68

Minimum discharge, 8.5 ft^3/s July 15.

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	20	87	68	59	58	132	676	290	30	55	42
2	37	27	74	65	58	68	145	676	209	29	55	32
3	37	28	66	53	320	81	173	954	173	30	33	27
4	35	25	61	35	425	72	182	1400	182	27	24	23
5	34	71	56	38	160	70	221	614	182	26	21	22
6	34	66	72	43	150	74	301	430	164	33	23	20
7	36	45	72	41	130	106	335	342	265	30	23	19
8	86	35	62	38	115	112	502	290	176	26	23	17
9	73	31	52	36	105	101	609	446	142	25	107	16
10	61	29	34	35	98	137	561	350	125	23	44	16
11	52	26	42	355	90	270	524	313	109	21	35	20
12	45	30	35	206	84	202	566	275	97	21	309	20
13	43	47	30	100	80	156	552	234	87	20	123	16
14	44	44	32	78	76	136	661	209	78	19	66	14
15	48	37	37	68	72	142	638	194	71	16	48	14
16	55	32	198	60	70	188	529	265	64	16	36	13
17	52	30	217	58	68	200	480	200	59	16	30	16
18	50	29	110	54	67	182	406	170	89	14	27	21
19	47	27	82	52	66	422	339	153	67	14	26	18
20	47	27	74	50	65	1050	353	156	56	13	24	15
21	48	27	68	48	64	542	353	145	50	13	20	14
22	47	29	64	46	65	426	375	130	45	19	22	48
23	45	58	62	64	66	301	476	142	40	16	30	27
24	43	73	60	230	64	231	880	156	35	19	22	22
25	44	69	64	140	60	203	1420	140	41	24	19	20
26	42	58	153	96	57	188	1260	125	41	17	18	18
27	41	50	108	74	56	161	772	215	55	14	34	17
28	26	38	99	68	56	158	846	203	49	13	118	16
29	17	57	111	66	---	156	798	158	39	13	49	15
30	17	93	91	64	---	137	686	247	33	13	41	15
31	17	---	72	60	---	132	---	335	---	13	53	---
TOTAL	1338	1258	2445	2489	2846	6462	16075	10343	3113	623	1558	613
MEAN	43.2	41.9	78.9	80.3	102	208	536	334	104	20.1	50.3	20.4
MAX	86	93	217	355	425	1050	1420	1400	290	33	309	48
MIN	17	20	30	35	56	58	132	125	33	13	18	13
CFSM	.57	.55	1.04	1.06	1.34	2.73	7.04	4.39	1.37	.26	.66	.27
IN.	.65	.61	1.20	1.22	1.39	3.16	7.86	5.06	1.52	.30	.76	.30

CAL YR 1982 TOTAL 41642 MEAN 114 MAX 2790 MIN 11 CFSM 1.50 IN 20.36
WTR YR 1983 TOTAL 49163 MEAN 135 MAX 1420 MIN 13 CFSM 1.77 IN 24.03

04288000 MAD RIVER NEAR MORETOWN, VT

LOCATION.--Lat 44°16'42", long 72°44'37", Washington County, Hydrologic Unit 02010003, on left bank at downstream side of highway bridge, 2.4 mi downstream from Moretown, and 3.8 mi upstream from mouth.

DRAINAGE AREA.--139 mi^2.

PERIOD OF RECORD.--Discharge: July to November 1910, October 1928 to current year. October 1928 monthly discharge only, published in WSP 1307.
Water-quality records: Water years 1954-55, 1957, 1967-74.

REVISED RECORDS.--WSP 744: Drainage area. WSP 854: 1934(M). WSP 1114: 1929, 1930(M), 1936-37.

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1933. Datum of gage is 543.93 ft National Geodetic Vertical Datum of 1929 (levels by Vermont Department of Highways). July 6 to Nov. 4, 1910, nonrecording gage at same site at different datum. Nov. 20, 1928, to Sept. 27, 1930, nonrecording gage at same site at present datum.

REMARKS.--Records good except those for winter period, which are poor. Occasional diurnal fluctuation at low flow; much greater regulation prior to 1958. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--55 years (water years 1928-83), 256 ft^3/s, 25.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft^3/s Sept. 22, 1938, gage height, 16.34 ft, from floodmarks, from rating curve extended above 2,700 ft^3/s on basis of computations of flow over dam at gage heights 9.98 ft, 11.51 ft, 16.34 ft, and 19.4 ft; minimum, 1.4 ft^3/s Oct. 1, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 23,000 ft^3/s Nov. 3, 1927, gage height, 19.4 ft, from floodmarks, by computation of peak flow over dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 24	2145	*4560	7.96	May 3	0515	4380	7.82

Minimum discharge, 17 ft^3/s July 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	51	72	280	220	125	130	247	2320	675	52	397	89
2	86	135	234	190	120	150	284	2040	487	52	295	65
3	62	124	205	150	800	170	338	2420	388	58	172	53
4	51	95	190	86	900	155	347	1890	400	48	82	45
5	45	363	170	92	350	150	444	1030	408	43	61	43
6	41	256	210	100	320	160	579	769	375	49	113	39
7	39	164	211	98	280	225	576	617	700	54	86	35
8	335	131	167	92	240	240	1060	557	414	44	58	31
9	206	112	147	88	220	220	1060	893	322	50	448	30
10	132	98	100	82	210	260	944	718	268	43	137	33
11	95	89	170	1000	200	520	931	659	227	37	106	35
12	78	108	140	450	180	340	1100	600	194	38	1250	39
13	73	285	90	210	170	260	956	555	167	36	427	30
14	81	216	96	160	160	240	1030	530	139	31	213	26
15	78	160	110	140	155	270	975	482	120	28	137	26
16	104	130	600	125	150	400	856	686	105	27	101	25
17	124	115	650	115	145	430	793	475	127	24	82	39
18	104	105	340	110	140	380	685	388	233	22	83	53
19	92	98	250	105	135	993	575	338	131	21	71	39
20	101	92	230	100	130	2020	647	352	99	20	66	31
21	92	92	210	100	130	982	632	329	86	19	53	30
22	85	110	190	98	140	757	685	287	73	53	52	278
23	75	240	180	140	150	532	871	393	66	33	82	92
24	69	300	160	500	140	415	1850	590	58	53	53	60
25	65	280	170	300	130	378	2920	407	79	68	46	51
26	64	240	574	200	120	331	2430	332	76	36	41	45
27	60	210	332	160	120	301	1470	616	122	27	74	39
28	58	160	373	150	120	283	1840	534	98	23	271	37
29	56	270	410	140	---	289	2070	405	71	22	83	33
30	54	418	292	135	---	268	1780	665	59	24	86	31
31	52	---	240	130	---	245	---	885	---	31	124	---
TOTAL	2708	5268	7721	5766	6180	12494	30975	23762	6767	1166	5350	1502
MEAN	87.4	176	249	186	221	403	1033	767	226	37.6	173	50.1
MAX	335	418	650	1000	900	2020	2920	2420	700	68	1250	278
MIN	39	72	90	82	120	130	247	287	58	19	41	25
CFSM	.63	1.27	1.79	1.34	1.59	2.90	7.43	5.52	1.63	.27	1.25	.36
IN.	.72	1.41	2.07	1.54	1.65	3.34	8.29	6.36	1.81	.31	1.43	.40

CAL YR 1982 TOTAL 86856 MEAN 238 MAX 5400 MIN 22 CFSM 1.71 IN 23.24
WTR YR 1983 TOTAL 109659 MEAN 300 MAX 2920 MIN 19 CFSM 2.16 IN 29.35

04288500 WATERBURY RESERVOIR NEAR WATERBURY, VT

LOCATION.--Lat 44°22'54", long 72°46'13", Washington County, Hydrologic Unit 02010003, at dam on Little River 2.7 mi upstream from mouth and 3.5 mi north of Waterbury.

DRAINAGE AREA.--109 mi^2.

PERIOD OF RECORD.--Elevation: September 1937 to current year. September 1937 to September 1938 monthend contents only, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Dec. 10, 1938, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam completed by Corps of Engineers during summer of 1937 for flood control and storage of water for power. Usable capacity for storage of water for power, 1,582,700,000 ft^3 between elevations 500.0 ft and 592.0 ft, sill of taintor gate; for flood control, 1,229,000,000 ft^3 between elevations 592.0 ft and 617.5 ft, crest of spillway; total usable capacity, 2,812,300,000 ft^3.

Capacity table (elevation, in feet, and contents, in millions of cubic feet)

500.0	0	560.0	658.8
510.0	34.8	570.0	891.9
520.0	92.6	580.0	1,168.5
530.0	180.8	590.0	1,505.0
540.0	302.7	600.0	1,913.4
550.0	461.7		

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 613.45 ft May 4, 1940; minimum observed, 501.30 ft Oct. 16, 1938, July 3, 12, 13, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 591.04 ft May 12; minimum, 525.45 ft Oct. 15.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	530.90	530.35	538.50	535.48	535.64	531.13	537.70	581.50	584.85	547.95	534.50	529.30
2	531.89	530.99	537.13	536.51	533.42	530.88	538.02	584.70	584.31	545.85	536.20	529.58
3	532.58	531.46	532.20	534.94	534.30	530.54	537.42	588.55	583.56	544.32	536.70	529.93
4	533.11	532.67	532.90	532.85	536.90	530.16	535.82	590.18	582.81	543.67	535.70	530.25
5	533.58	537.40	530.50	530.93	536.65	531.11	534.76	590.45	582.12	542.52	535.30	530.55
6	531.85	539.36	530.70	529.19	535.89	532.11	534.31	590.38	581.82	540.56	534.90	529.90
7	528.05	540.40	531.42	529.70	534.96	531.98	534.24	590.10	582.41	538.29	534.50	529.47
8	530.13	540.20	531.00	528.97	533.65	531.83	537.31	589.90	581.86	535.84	538.00	529.87
9	528.10	539.20	530.80	527.61	532.27	531.66	539.41	590.83	581.03	534.90	542.10	530.10
10	527.20	538.20	530.04	526.26	530.56	532.15	540.61	591.02	580.08	533.88	542.80	530.20
11	528.28	539.00	531.19	534.82	528.75	534.13	541.76	591.03	578.98	532.83	542.90	530.30
12	529.09	537.73	531.58	536.73	530.13	536.29	543.43	590.95	577.82	531.86	543.40	529.60
13	528.46	539.15	529.73	535.02	531.30	537.67	544.40	590.96	576.58	530.74	543.90	528.90
14	526.98	539.00	529.38	533.78	531.08	537.60	545.70	590.87	576.29	529.82	544.40	529.00
15	525.86	538.73	529.73	534.90	530.79	538.07	546.60	590.61	573.78	529.10	543.30	529.20
16	528.30	537.22	533.22	534.89	530.46	539.10	547.43	590.71	572.38	529.51	542.10	529.50
17	530.33	535.56	534.50	535.91	530.08	539.82	548.57	590.19	571.63	529.88	539.20	530.00
18	530.05	533.70	535.00	534.73	529.78	539.29	548.58	589.51	570.92	529.49	534.70	530.50
19	530.33	531.93	535.50	533.79	530.81	540.99	548.14	588.72	569.70	529.80	532.68	530.47
20	530.82	532.68	535.30	532.65	531.73	544.29	548.28	588.12	568.23	530.12	533.26	530.52
21	531.09	533.45	534.29	532.35	531.35	547.06	548.11	587.46	566.68	530.47	533.73	531.61
22	531.12	533.37	533.38	533.32	530.99	546.84	548.29	586.52	564.98	530.60	532.68	537.51
23	531.87	534.72	532.41	534.52	530.82	545.54	548.79	585.98	563.30	531.08	531.62	537.55
24	532.52	535.40	531.55	536.50	530.48	545.49	552.14	586.34	561.50	532.88	530.34	538.10
25	533.11	535.90	531.80	536.58	530.15	545.42	558.35	585.86	559.72	531.89	530.09	538.53
26	533.65	535.68	535.45	535.93	531.03	545.40	563.53	585.12	557.77	531.59	529.78	537.88
27	532.46	536.78	535.61	534.94	531.83	545.28	565.32	585.38	556.15	531.20	530.21	537.64
28	531.85	537.65	535.92	533.78	531.36	544.72	569.03	585.15	554.35	530.98	530.60	537.37
29	530.05	537.66	535.40	534.89	---	547.28	573.12	584.56	552.38	530.75	530.17	537.39
30	530.58	538.86	535.10	535.87	---	541.05	576.23	584.42	550.26	531.22	529.67	537.68
31	531.07	---	534.17	535.09	---	538.91	---	584.85	---	532.05	530.30	---
MEAN	530.49	536.15	533.08	533.66	532.04	538.51	547.85	588.09	571.61	534.05	535.80	532.28
MAX	533.65	540.40	538.50	536.73	536.90	547.28	576.23	591.03	584.85	547.95	544.40	538.53
MIN	525.86	530.35	529.38	526.26	528.75	530.16	534.24	581.50	550.26	529.10	529.67	528.90
(†)	192.9	287.8	227.9	238.5	196.1	288.4	1059.2	1323.5	466.5	204.0	184.1	272.3
(‡)	+3.62	+36.6	-22.4	+3.96	-17.5	+34.5	+297	+98.7	-331	-98.0	-7.43	+34.0

CAL YR 1982 MEAN 538.73 MAX 588.54 MIN 523.22 (†) +1.46
WTR YR 1983 MEAN 542.84 MAX 591.03 MIN 525.86 (‡) +2.83

† Contents, in millions of cubic feet, at end of month.
‡ Change in contents, equivalent in cubic feet per second.

04289000 LITTLE RIVER NEAR WATERBURY, VT

LOCATION.--Lat 44°22'12", long 72°46'11", Washington County, Hydrologic Unit 02010003, on right bank 1 mi downstream from Waterbury Reservoir, 1.7 mi upstream from mouth, and 2.5 mi north of Waterbury.

DRAINAGE AREA.--111 mi^2.

PERIOD OF RECORD.--July to October 1910 (gage heights only), October 1935 to current year. October, November 1935 monthly discharge only, published in WSP 1307. Prior to October 1962, published as Waterbury River near Waterbury.

REVISED RECORDS.--WSP 824: 1936.

GAGE.--Water-stage recorder. Concrete control since Dec. 8, 1937. Datum of gage is 428.00 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). July 7 to Oct. 31, 1910, nonrecording gage at site 2 mi upstream at different datum.

REMARKS.--Records good except those for shifting control, July 4 to Sept. 30, which are fair. Flow completely regulated by Waterbury Reservoir (station 04288500). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--48 years, 240 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft^3/s Mar. 18, 1936, gage height, 19.38 ft; minimum daily, 0.6 ft^3/s several times during summers of 1938-39, 1941, and 1944. Maximum discharge since construction of Waterbury Reservoir in 1937, 4,080 ft^3/s Dec. 9, 1937, gage height, 14.88 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 640 ft^3/s May 3, gage height, 7.92 ft; minimum daily, 4.7 ft^3/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	10	166	333	12	125	118	392	579	564	488	198	47
2	9.7	178	483	12	338	130	167	588	564	468	227	6.3
3	9.1	137	480	301	442	138	300	601	560	347	270	5.7
4	9.1	10	474	299	320	135	485	596	560	208	198	5.5
5	9.1	169	467	294	266	10	479	592	560	220	210	5.5
6	221	11	248	289	265	10	482	588	558	365	201	81
7	454	11	101	65	279	189	483	583	561	383	155	59
8	463	268	180	170	297	192	492	583	557	358	159	5.2
9	460	278	114	191	291	172	501	588	556	311	107	78
10	247	269	179	187	293	166	508	583	556	139	351	6.0
11	9.6	11	10	101	289	173	515	574	553	169	436	5.7
12	9.2	268	57	299	11	13	521	574	552	155	368	91
13	132	12	262	279	11	12	517	574	547	159	416	77
14	204	10	124	266	131	186	520	574	546	128	180	16
15	187	329	67	11	138	180	521	574	544	108	331	15
16	10	316	257	11	137	179	525	574	542	8.2	476	6.3
17	10	318	259	122	139	206	434	574	541	8.2	468	6.9
18	173	322	120	251	131	355	532	560	542	67	460	6.3
19	92	292	11	209	10	512	530	555	540	7.9	317	6.0
20	99	10	261	225	10	536	534	555	536	7.5	5.2	25
21	111	9.8	257	139	138	526	533	555	530	6.6	4.7	11
22	101	176	220	10	143	522	534	560	526	74	165	12
23	9.4	171	219	11	124	518	536	564	522	6.3	165	124
24	9.1	260	210	130	135	377	546	574	517	7.2	169	7.9
25	9.1	244	172	267	119	212	568	569	515	88	63	7.5
26	9.1	287	218	262	10	196	590	569	513	80	64	128
27	198	11	247	269	11	198	562	542	512	77	6.6	73
28	131	10	255	268	137	290	564	551	504	56	6.9	74
29	243	263	311	14	---	385	546	551	484	55	73	34
30	9.5	307	309	11	---	491	564	555	489	5.7	73	7.5
31	9.1	---	261	143	---	489	---	564	---	7.9	76	---
TOTAL	3657.1	5123.8	7166	5118	4740	7816	14981	17723	16151	4568.5	6399.4	1033.3
MEAN	118	171	231	165	169	252	499	572	538	147	206	34.4
MAX	463	329	483	301	442	536	590	601	564	488	476	128
MIN	9.1	9.8	10	10	10	10	167	542	484	5.7	4.7	5.2

CAL YR 1982 TOTAL 78917.7 MEAN 216 MAX 564 MIN 8.5
WTR YR 1983 TOTAL 94477.1 MEAN 259 MAX 601 MIN 4.7

04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT

LOCATION.--Lat 44°28'44", long 73°08'21", Chittenden County, Hydrologic Unit 02010003, on right bank 0.5 mi downstream from Muddy Brook and 2 mi southwest of Essex Junction.
DRAINAGE AREA.--1,044 mi^2.
PERIOD OF RECORD.--Discharge: October 1928 to current year.
Water-quality records: Water years 1953, 1976-79.
REVISED RECORDS.--WSP 714: 1930(M). WSP 894: Drainage area. WSP 1307: 1929(M).
GAGE.--Water-stage recorder. Altitude of gage is 185 ft, from topographic map; prior to Oct. 1, 1964, datum was 1.00 ft higher.
REMARKS.--Records good except those for winter period and period of no gage-height record, June 18 to July 13, which are fair. Flow regulated by powerplants upstream, by Peacham Pond and Mollys Falls Reservoir, combined usable capacity, 492,000,000 ft^3, by Waterbury Reservoir (station 04288500) since 1937, and by East Barre and Wrightsville Detention Reservoirs (Reservoirs in Winooski River basin) since 1935. See table with station 04286000 for monthend contents in Peacham Pond and Mollys Falls Reservoir. Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--55 years, 1,706 ft^3/s.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,300 ft^3/s Mar. 19, 1936, gage height, 24.54 ft, present datum, from rating curve extended above 27,000 ft^3/s on basis of computations of flow over dam at gage heights 19.72, 24.54, and 51.4 ft and slope-area measurement at gage height 51.4 ft, all at present datum; minimum daily, 24 ft^3/s Sept. 7, 1968.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 113,000 ft^3/s Nov. 4, 1927, gage height, 51.4 ft, present datum, from floodmarks, from rating curve extended above 27,000 ft^3/s by method explained above.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 12,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 25	1030	*17400	11.94	May 4	1515	15600	10.99

Minimum daily discharge, 64 ft^3/s Sept. 10, 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	435	328	1600	1000	1100	780	1820	11100	5190	1050	1270	552
2	376	517	1500	880	1150	840	1740	9280	3740	1000	1700	753
3	311	719	1410	780	2500	900	1980	12400	3020	940	1520	283
4	382	841	1290	720	4000	1050	2610	13000	2720	620	892	313
5	326	1160	1210	840	3300	960	2840	9470	2810	500	833	264
6	316	1900	1160	940	2300	880	3090	6780	2680	760	665	649
7	550	1100	940	960	2000	1050	4020	5570	5210	660	930	292
8	971	892	880	760	1700	1740	4770	4820	3860	740	750	679
9	1560	898	820	720	1600	1830	5940	6720	2830	960	1720	229
10	1290	822	600	760	1400	1630	5780	6570	2340	640	1860	64
11	637	804	580	1900	1300	2460	6360	5830	2100	500	1260	88
12	460	669	600	3600	1100	2800	6860	5230	1810	420	3460	314
13	461	782	620	1800	1000	1840	6170	4530	1590	350	3740	379
14	512	1110	780	1400	940	1850	6140	4200	1490	469	1790	318
15	591	920	700	1300	900	1990	6510	3680	1220	643	723	318
16	749	966	1250	900	920	2780	5580	4480	1410	469	1150	310
17	629	887	3620	840	940	3340	5510	3990	1340	110	948	64
18	551	820	1800	1350	960	2840	5320	3160	1600	354	990	78
19	656	831	1200	1700	940	4750	4460	2700	2100	272	935	352
20	565	755	1000	1650	770	11600	4260	2510	1400	334	412	334
21	527	646	1100	1700	740	7820	5270	2550	1300	334	370	403
22	534	558	1050	1650	800	5800	5070	2230	1350	289	499	1610
23	479	749	940	1450	840	4200	6000	2200	1200	84	524	834
24	393	1360	920	2000	880	3200	6980	3230	1050	142	571	865
25	371	1440	1000	3150	880	2400	15800	3030	1100	369	574	219
26	353	1180	1860	3200	800	2050	15900	2580	1150	446	486	391
27	325	1000	2220	2700	740	1790	10100	3860	1200	391	332	355
28	534	763	1830	2300	680	1820	8840	4200	1400	321	663	362
29	447	681	1990	1800	---	2050	9470	3090	1150	525	539	325
30	544	1590	1780	1200	---	1930	9100	2910	1100	105	777	366
31	384	---	1250	1000	---	1830	---	4940	---	135	757	---
TOTAL	17219	27688	39500	46950	37180	82800	184290	160840	62460	14932	33640	12363
MEAN	555	923	1274	1515	1328	2671	6143	5188	2082	482	1085	412
MAX	1560	1900	3620	3600	4000	11600	15900	13000	5210	1050	3740	1610
MIN	311	328	580	720	680	780	1740	2200	1050	84	332	64

CAL YR 1982 TOTAL 593016 MEAN 1625 MAX 25700 MIN 110
WTR YR 1983 TOTAL 719862 MEAN 1972 MAX 15900 MIN 64

04292000 LAMOILLE RIVER AT JOHNSON, VT

LOCATION.--Lat 44°37'22", long 72°40'50", Lamoille County, Hydrologic Unit 02010005, on right bank above falls, 0.7 mi upstream from bridge in Johnson and 0.8 mi upstream from Gihon River.

DRAINAGE AREA.--310 mi^2.

PERIOD OF RECORD.--Discharge: July to December 1910, June 1911 to December 1913 (monthly discharge only, January to March 1912, Feburary 1913), September 1928 to current year.
Water-quality records: Water year 1953.

REVISIED RECORDS.--WSP 894: Drainage area. WSP 1114: 1933, 1934(M). WSP 1237: 1912(M), 1930, 1932(M).

GAGE.--Water-stage recorder. Altitude of gage is 495 ft, from topographic map. Prior to Dec. 31, 1913, nonrecording gage at bridge 0.7 mi downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Some regulation by powerplant upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--57 years (water years 1912-13, 1929-83), 535 ft^3/s, 23.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft^3/s July 1, 1973, gage height, 17.33 ft, from rating curve extended above 8,500 ft^3/s on basis of computation of flow over dam at gage height 16.48 ft; minimum, 11 ft^3/s Sept. 2, 1935; minimum daily, 16 ft^3/s Oct. 26, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,390 ft^3/s Apr. 26, gage height, 9.45 ft, no peak discharge above base of 5,400 ft^3/s; minimum discharge, 48 ft^3/s Aug. 22; minimum daily, 65 ft^3/s Aug. 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	204	148	650	250	310	160	327	3780	1650	136	234	327
2	204	372	492	200	300	160	423	3070	1010	133	483	252
3	152	555	453	190	740	210	618	3530	738	156	449	142
4	145	374	493	200	1880	290	784	3270	657	221	308	137
5	142	1450	379	320	1090	290	850	2310	665	204	204	136
6	124	1180	358	330	790	280	1010	1710	703	209	231	133
7	101	668	461	270	640	310	1260	1360	1830	182	226	133
8	864	388	459	250	560	410	2050	1110	1140	173	264	125
9	962	215	270	270	500	380	2010	1490	774	191	1330	107
10	604	213	170	400	400	410	2060	1910	593	240	501	88
11	352	211	120	1250	300	740	1750	1710	479	237	386	88
12	338	272	160	1620	300	789	2120	1450	369	245	1040	129
13	229	396	260	820	290	651	1910	1190	371	236	1040	112
14	119	509	290	500	320	410	2110	994	373	174	544	110
15	122	371	300	270	280	427	2350	839	351	151	401	137
16	163	338	720	150	260	713	2010	1050	307	122	338	175
17	223	321	1780	200	250	761	1990	1070	295	112	211	172
18	315	221	660	240	245	748	1650	847	433	110	185	177
19	290	196	350	240	240	1300	1230	673	308	99	145	170
20	224	194	350	290	240	3190	1260	562	302	88	146	143
21	171	197	400	270	230	2200	1710	618	316	99	135	110
22	163	234	260	250	230	1600	1510	564	331	166	65	699
23	160	520	230	250	230	1040	2040	539	243	304	139	514
24	158	659	270	760	220	687	2090	524	215	226	148	346
25	156	557	260	850	220	567	3780	907	203	221	138	329
26	155	431	870	750	220	544	4050	769	132	230	112	316
27	153	372	756	600	220	493	2860	819	131	220	103	310
28	151	320	631	360	180	428	2660	1320	144	206	96	157
29	151	260	571	320	---	428	2870	890	140	154	93	141
30	143	657	552	310	---	345	2820	786	142	153	176	105
31	118	---	545	320	---	371	---	1380	---	148	311	---
TOTAL	7556	12799	14520	13300	11685	21332	56162	43041	15345	5546	10182	6020
MEAN	244	427	468	429	417	688	1872	1388	512	179	328	201
MAX	962	1450	1780	1620	1880	3190	4050	3780	1830	304	1330	699
MIN	101	148	120	150	180	160	327	524	131	88	65	88
CFSM	.79	1.38	1.51	1.38	1.35	2.22	6.04	4.48	1.65	.58	1.06	.65
IN.	.91	1.54	1.74	1.60	1.40	2.56	6.74	5.16	1.84	.67	1.22	.72

CAL YR 1982 TOTAL 198932 MEAN 545 MAX 9140 MIN 85 CFSM 1.76 IN 23.87
WTR YR 1983 TOTAL 217488 MEAN 596 MAX 4050 MIN 65 CFSM 1.92 IN 26.10

04292500 LAMOILLE RIVER AT EAST GEORGIA, VT

LOCATION.--Lat 44°40'45", long 73°04'23", Franklin County, Hydrologic Unit 02010005, on right bank at East Georgia, 0.5 mi upstream from railroad bridge, and 1 mi downstream from Beaver Meadow Brook.

DRAINAGE AREA.--686 mi^2.

PERIOD OF RECORD.--Discharge: August 1929 to current year. Prior to October 1937, published as "near Milton." Water-quality records: Water years 1955, 1967-74.

REVISED RECORDS.--WSP 894: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 285 ft, from topographic map. Prior to Dec. 1, 1937, at site 3.5 mi downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Low flow regulated by powerplants upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--54 years, 1,239 ft^3/s, 24.5 in/yr, adjusted to present drainage area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft^3/s Apr. 18, 1982, gage height, 12.38 ft, from rating curve extended above 21,700 ft^3/s on the basis of computation of flow over dam at gage height 11.76 ft; maximum gage height, 21.64 ft Mar. 6, 1979, backwater from ice; minimum daily discharge, 74 ft^3/s Sept. 26, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,300 ft^3/s Apr. 26, 1983, gage height, 9.03 ft, no peak above base of 10,400 ft^3/s; maximum gage height, 12.85 ft Feb. 4, backwater from ice (from peak-stage indicator); minimum daily, 170 ft^3/s Sept. 15.

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	509	420	1870	700	740	380	1010	7990	3950	301	612	413
2	436	562	1600	470	700	380	998	8070	2590	261	894	463
3	513	1170	1350	450	1750	500	1270	8380	1800	294	1290	331
4	423	965	1350	480	4400	680	1720	7570	1460	398	782	231
5	382	2600	1140	760	2400	680	1870	5540	1490	380	578	242
6	257	3410	1100	780	1850	660	2230	3730	1440	420	487	244
7	349	1700	1070	660	1500	740	2420	2990	3350	458	713	236
8	1020	1160	1130	600	1300	960	3100	2440	2690	376	601	348
9	2230	868	800	640	1200	900	3900	4810	1630	420	3160	184
10	1220	674	520	900	950	980	3670	5480	1260	443	1880	182
11	859	589	410	2100	700	1800	4710	4500	1060	487	902	224
12	672	587	540	3800	700	1900	5200	3780	886	398	1380	257
13	630	1160	860	1900	680	1550	4340	3050	797	411	2200	337
14	517	1260	960	1300	750	1000	4150	2710	754	372	1140	177
15	425	1050	1050	640	680	1050	4490	2300	720	267	775	170
16	577	813	1700	360	620	1700	3940	3130	674	233	668	230
17	756	764	4000	470	600	1850	4080	2640	567	233	556	280
18	740	703	1600	570	580	1800	3730	1960	768	172	416	304
19	740	633	850	560	570	3100	2910	1600	707	239	376	364
20	658	552	840	680	560	7700	2740	1410	636	227	341	304
21	587	538	940	640	540	6400	3560	1450	518	199	304	274
22	485	732	620	600	540	3890	3740	1320	534	368	301	2200
23	436	1220	550	600	540	2700	4530	1200	513	518	207	1520
24	340	1740	640	1800	520	1870	5230	1650	416	420	308	804
25	352	1780	620	2000	520	1430	8840	2190	376	368	233	661
26	374	1270	2050	1700	520	1260	10100	1690	380	385	264	534
27	368	1050	1900	1400	520	1170	8050	2860	372	364	261	534
28	426	720	1780	860	450	1190	5720	3210	411	322	224	434
29	353	960	1770	760	---	1290	6150	2230	364	301	224	330
30	340	1970	1360	740	---	1040	5700	1850	319	270	210	280
31	324	---	1050	780	---	1000	---	2830	---	398	411	---
TOTAL	18298	33620	38020	30700	27380	53550	124098	106560	33432	10703	22698	13092
MEAN	590	1121	1226	990	978	1727	4137	3437	1114	345	732	436
MAX	2230	3410	4000	3800	4400	7700	10100	8380	3950	518	3160	2200
MIN	257	420	410	360	450	380	998	1200	319	172	207	170
CFSM	.86	1.63	1.79	1.44	1.43	2.52	6.03	5.01	1.62	.50	1.07	.64
IN.	.99	1.82	2.06	1.66	1.48	2.90	6.73	5.78	1.81	.58	1.23	.71

CAL YR 1982 TOTAL 444296 MEAN 1217 MAX 18500 MIN 179 CFSM 1.77 IN 24.09
WTR YR 1983 TOTAL 512151 MEAN 1403 MAX 10100 MIN 170 CFSM 2.05 IN 27.77

04293000 MISSISQUOI RIVER NEAR NORTH TROY, VT

LOCATION.--Lat 44°58'22", long 72°23'15", Orleans County, Hydrologic Unit 02010007, on right bank 200 ft upstream from Big Falls, 1.5 mi downstream from Jay Branch, and 2.2 mi upstream from North Troy.

DRAINAGE AREA.--131 mi^2.

PERIOD OF RECORD.--August 1931 to current year.

REVISED RECORDS.--WSP 924: 1940. WSP 1114: 1933(M), 1936-39.

GAGE.--Water-stage recorder. Altitude of gage is 580 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Occasional regulation at low flow caused by small powerplant upstream; greater regulation prior to 1967. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--52 years, 271 ft^3/s, 28.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,290 ft^3/s Apr. 18, 1982, gage height, 13.21 ft, from rating curve extended above 5,500 ft^3/s on basis of computation of flow over dam at gage height 11.70 ft; minimum, 9.4 ft^3/s Aug. 28, 1949; minimum daily, 11 ft^3/s Aug. 28, 1949, Aug. 30, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,420 ft^3/s May 1, gage height, 8.40 ft, no other peak above base of 3,300 ft^3/s; minimum discharge, 19 ft^3/s July 17; minimum daily, 29 ft^3/s July 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	84	85	417	165	105	84	182	2600	701	50	85	80
2	76	242	432	140	100	86	216	1870	365	51	145	53
3	72	271	373	90	440	90	249	1820	262	88	179	53
4	66	166	348	82	1270	92	356	1250	231	64	97	39
5	62	1030	264	80	450	94	440	778	273	71	60	39
6	60	543	231	105	250	98	550	543	226	77	52	32
7	56	263	203	100	220	105	581	410	621	95	46	46
8	180	190	165	96	180	130	1170	347	307	66	100	61
9	310	157	140	92	170	150	1140	1230	214	62	536	42
10	190	135	83	86	150	210	965	824	171	59	175	44
11	120	119	100	1000	140	455	787	713	147	49	100	47
12	105	136	85	994	120	331	857	636	132	53	286	50
13	88	681	75	260	110	232	774	505	111	59	214	46
14	95	368	90	140	105	197	887	434	103	51	108	34
15	117	230	100	130	105	213	1050	469	90	40	87	30
16	209	181	600	115	100	369	912	658	83	52	67	33
17	217	152	851	110	98	368	882	407	97	32	55	35
18	171	136	210	105	96	492	655	299	149	49	61	56
19	133	127	150	100	94	831	458	249	171	29	79	50
20	123	120	145	100	92	1900	505	244	111	44	51	46
21	118	117	135	98	90	1060	617	241	79	111	52	40
22	111	214	120	98	90	658	532	209	66	153	45	509
23	95	284	115	96	90	397	693	241	64	80	42	193
24	89	509	130	430	88	265	947	390	51	43	43	109
25	81	441	250	410	86	223	1790	344	56	71	41	77
26	84	265	800	270	84	204	1730	239	47	46	32	76
27	71	208	560	200	84	182	1210	476	66	44	37	64
28	78	150	360	160	84	186	1360	585	76	33	157	56
29	66	233	350	130	---	197	1570	332	65	32	90	45
30	64	609	260	120	---	167	1150	365	44	50	71	42
31	68	---	180	110	---	161	---	674	---	41	61	---
TOTAL	3459	8362	8322	6212	5091	10227	25215	20382	5179	1845	3254	2127
MEAN	112	279	268	200	182	330	841	657	173	59.5	105	70.9
MAX	310	1030	851	1000	1270	1900	1790	2600	701	153	536	509
MIN	56	85	75	80	84	84	182	209	44	29	32	30
CFSM	.86	2.13	2.05	1.53	1.39	2.52	6.42	5.02	1.32	.45	.80	.54
IN.	.98	2.37	2.36	1.76	1.45	2.90	7.16	5.79	1.47	.52	.92	.60

CAL YR 1982 TOTAL 94830 MEAN 260 MAX 6710 MIN 25 CFSM 1.99 IN 26.93
WTR YR 1983 TOTAL 99675 MEAN 273 MAX 2600 MIN 29 CFSM 2.08 IN 28.30

04293500 MISSISQUOI RIVER NEAR EAST BERKSHIRE, VT

LOCATION.--Lat 44°57'30", long 72°41'55", Franklin County, Hydrologic Unit 02010007, on left bank 1.7 mi north of intersection of State Highways 105 and 118 in East Berkshire, 1.7 mi upstream from Trout River, 3 mi south of Richford, and 3.8 mi downstream from North Branch.

DRAINAGE AREA.--479 mi^2.

PERIOD OF RECORD.--Discharge: July 1911 to September 1923, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1307. Prior to October 1977, published as "near Richford."
Water-quality records: Water years 1954, 1967-74.

REVISED RECORDS.--WSP 784: Drainage area. WSP 1237: 1913-14(M), 1922(M), 1923, 1929-30. WSP 1307: 1916(M). WSP 1437: 1912.

GAGE.--Water-stage recorder. Altitude of gage is 410 ft, from topographic map. Prior to Aug. 1, 1915, nonrecording gage at site 0.2 mi downstream at datum 4.35 ft lower. Aug. 1, 1915, to Sept. 30, 1923, water-stage recorder at present site and datum. Oct. 1, 1928, to Sept. 30, 1929, nonrecording gage at former site at datum 4.6 ft lower.

REMARKS.--Records good except those for winter period, which are fair. Diurnal fluctuation at low flow prior to 1934. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--67 years, 925 ft^3/s, 26.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft^3/s Apr. 18, 1982, gage height, 17.45 ft, from rating curve extended above 9,300 ft^3/s on basis of computation of peak flow over dam at gage height 14.70 ft, slope-area measurement at gage height 12.90 ft, and study of discharge per foot of width at measuring section; maximum gage height, 18.92 ft Mar. 15, 1946, ice jam; minimum discharge observed, 8 ft^3/s July 14, 1911.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 45,000 ft^3/s during flood of November 1927, gage height, 23.1 ft, from floodmarks, from rating curve extended above 9,300 ft^3/s as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,740 ft^3/s Mar. 20, gage height, 9.45 ft, no peak above base of 7,600 ft^3/s; minimum discharge, 71 ft^3/s Sept. 16, 17; minimum daily 74 ft^3/s Sept. 16.

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	270	273	1520	740	480	380	739	5000	2790	110	627	162
2	240	446	1490	580	460	400	830	5320	1920	134	1140	164
3	230	797	1430	500	1800	420	1090	5760	1310	150	980	127
4	215	600	1390	430	4500	440	1430	4880	1040	150	445	121
5	200	2250	1180	350	2600	450	1500	3550	1050	134	254	100
6	190	2460	1030	380	1900	460	1790	2280	960	198	186	100
7	180	1320	944	370	1350	490	1810	1650	1410	267	210	103
8	580	932	787	350	1000	580	3000	1370	1240	200	294	125
9	1000	715	640	340	850	680	3520	3410	852	154	2710	121
10	620	590	520	330	720	840	3380	4160	673	130	1110	102
11	400	493	460	2100	620	1700	3360	3330	544	128	496	113
12	350	561	400	3030	550	1300	3650	2910	460	115	952	116
13	288	1200	370	2040	500	1150	3230	2310	401	177	1010	108
14	264	1440	340	1000	480	1050	3070	1830	336	156	519	97
15	339	958	400	820	470	960	3240	1790	297	128	315	83
16	485	762	2000	700	460	1350	3170	2510	248	154	245	74
17	587	627	2950	620	450	1450	3120	1800	227	174	213	83
18	554	549	1940	540	440	1850	2780	1300	367	118	205	127
19	429	484	1200	490	430	3100	2070	1060	374	115	188	130
20	368	448	900	450	420	6420	2060	960	304	144	179	118
21	359	451	720	420	410	5420	2770	944	221	158	142	118
22	348	845	620	400	410	3880	2380	801	179	445	127	882
23	319	902	560	380	410	2340	2550	867	160	351	132	801
24	278	1310	580	1100	410	1470	2930	1640	146	184	116	359
25	262	1540	680	1350	390	1210	4650	1570	130	128	108	239
26	240	1130	1500	1150	380	1030	5800	1200	132	128	103	188
27	235	936	2680	880	380	913	5070	1640	142	111	121	177
28	232	700	1800	660	380	882	4310	2120	158	92	224	156
29	232	880	1610	580	---	890	4230	1540	152	92	251	140
30	211	1560	1370	520	---	780	3630	1400	134	99	198	125
31	201	---	1000	500	---	746	---	2180	---	120	172	---
TOTAL	10706	28159	35011	24100	23650	45031	87159	73082	18357	4944	13972	5459
MEAN	345	939	1129	777	845	1453	2905	2357	612	159	451	182
MAX	1000	2460	2950	3030	4500	6420	5800	5760	2790	445	2710	882
MIN	180	273	340	330	380	380	739	801	130	92	103	74
CFSM	.72	1.96	2.36	1.62	1.76	3.03	6.07	4.92	1.28	.33	.94	.38
IN.	.83	2.19	2.72	1.87	1.84	3.50	6.77	5.68	1.43	.38	1.09	.42

CAL YR 1982 TOTAL 328670 MEAN 900 MAX 17800 MIN 70 CFSM 1.88 IN 25.53
WTR YR 1983 TOTAL 369630 MEAN 1013 MAX 6420 MIN 74 CFSM 2.12 IN 28.71

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

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^2.

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 1970, 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^2. Total volume below 92.5 ft elevation, reported by Lake Champlain Studies Center, 902.2 bil ft^3.

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

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	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
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	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 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

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (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).

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-PENDED (MG/L)	DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)
OCT			JUN		
18...	1030	2	08...	0900	1
MAY			AUG		
02...	1000	2	30...	1000	0

04295500 LAKE MEMPHREMAGOG AT NEWPORT, VT

LOCATION.--Lat 44°56'15", long 72°12'21", Orleans County, Hydrologic Unit 01110000, on west side of bridge on U.S. Highway 5 at Newport.

PERIOD OF RECORD.--Gage heights: May 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 673.00 ft National Geodetic Vertical Datum of 1929. Prior to July 21, 1934, nonrecording gage on highway bridge 0.1 mi southeast at same datum. July 21, 1934, to Aug. 22, 1961, nonrecording gage on east side, and Aug. 23, 1961, to Oct. 18, 1966, on west side of bridge at present site and datum.

REMARKS.--Elevation of lake regulated by powerplant and gates at Magog, Quebec.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 12.92 ft Apr. 20, 1933; minimum recorded, 6.48 ft Nov. 2, 1968 (affected by seiche), but may have been lower during period of use of nonrecording gage.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.77 ft May 4-5 (affected by seiche); minimum gage height, 7.51 ft Mar. 9, 10, Sept. 21 (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	7.88	7.67	8.89	9.10	8.57	7.86	9.08	10.46	9.99	8.66	8.21	8.12
2	7.91	7.69	8.93	9.11	8.52	7.82	9.07	10.51	10.01	8.65	8.25	8.08
3	7.83	7.69	8.91	9.09	8.54	7.77	9.10	10.63	9.92	8.66	8.25	8.07
4	7.84	7.73	8.98	9.05	8.67	7.71	9.19	10.73	9.84	8.61	8.25	8.04
5	7.79	7.91	8.99	8.99	8.77	7.65	9.23	10.74	9.76	8.58	8.23	8.01
6	7.79	7.99	8.99	8.95	8.82	7.61	9.29	10.69	9.69	8.59	8.20	7.98
7	7.78	8.11	9.01	8.90	8.86	7.57	9.37	10.52	9.66	8.53	8.20	8.00
8	7.78	8.14	8.99	8.86	8.90	7.53	9.50	10.40	9.62	8.45	8.17	7.99
9	7.87	8.24	9.03	8.85	8.87	7.51	9.62	10.41	9.53	8.47	8.28	7.94
10	7.88	8.24	8.88	8.80	8.83	7.53	9.72	10.40	9.41	8.42	8.28	7.92
11	7.85	8.19	8.86	8.86	8.81	7.60	9.84	10.39	9.41	8.36	8.27	7.90
12	7.81	8.21	8.84	8.96	8.78	7.68	9.95	10.34	9.40	8.35	8.34	7.87
13	7.81	8.38	8.78	9.02	8.73	7.75	9.96	10.26	9.40	8.40	8.33	7.86
14	7.82	8.42	8.73	9.04	8.68	7.75	9.94	10.17	9.38	8.36	8.33	7.81
15	7.81	8.46	8.69	9.03	8.64	7.77	9.94	10.09	9.34	8.36	8.32	7.77
16	7.84	8.46	8.73	9.06	8.58	7.80	9.97	10.11	9.28	8.38	8.30	7.71
17	7.86	8.47	8.83	9.03	8.52	7.83	10.05	10.04	9.23	8.37	8.28	7.69
18	7.81	8.50	8.85	8.99	8.48	7.89	10.07	9.98	9.21	8.34	8.30	7.68
19	7.78	8.50	8.87	8.95	8.42	8.06	10.03	9.93	9.25	8.32	8.30	7.64
20	7.77	8.47	8.88	8.90	8.36	8.36	9.98	9.86	9.23	8.34	8.30	7.62
21	7.79	8.49	8.85	8.85	8.30	8.72	9.96	9.86	9.17	8.34	8.26	7.57
22	7.81	8.56	8.81	8.80	8.25	8.97	9.94	9.84	9.12	8.47	8.19	7.72
23	7.79	8.60	8.78	8.76	8.21	9.04	9.93	9.82	9.07	8.34	8.18	7.68
24	7.79	8.68	8.77	8.77	8.15	9.04	9.95	9.80	9.08	8.31	8.15	7.68
25	7.76	8.71	8.79	8.78	8.09	9.01	10.07	9.79	9.00	8.32	8.11	7.66
26	7.75	8.74	8.88	8.78	8.03	9.02	10.24	9.73	8.92	8.31	8.07	7.63
27	7.73	8.84	8.96	8.76	7.97	9.04	10.39	9.73	8.91	8.27	8.17	7.62
28	7.71	8.82	9.00	8.74	7.91	9.08	10.44	9.79	8.89	8.24	8.16	7.60
29	7.69	8.87	9.04	8.70	---	9.10	10.45	9.80	8.83	8.23	8.15	7.57
30	7.68	8.89	9.08	8.65	---	9.10	10.41	9.83	8.75	8.24	8.13	7.54
31	7.67	---	9.10	8.61	---	9.09	---	9.90	---	8.22	8.15	---
MEAN	7.80	8.36	8.89	8.89	8.51	8.20	9.82	10.15	9.34	8.40	8.23	7.80
MAX	7.91	8.89	9.10	9.11	8.90	9.10	10.45	10.74	10.01	8.66	8.34	8.12
MIN	7.67	7.67	8.69	8.61	7.91	7.51	9.07	9.73	8.75	8.22	8.07	7.54

CAL YR 1982 MEAN 8.43 MAX 11.16 MIN 6.62
WTR YR 1983 MEAN 8.70 MAX 10.74 MIN 7.51

04296000 BLACK RIVER AT COVENTRY, VT

LOCATION.--Lat 44°52'08", long 72°16'14", Orleans County, Hydrologic Unit 01110000, on right bank 15 ft downstream from highway bridge, 800 ft upstream from Stony Brook, and 0.4 mi northwest of Coventry.

DRAINAGE AREA.--122 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 725 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Occasional diurnal fluctuation at low flow by mill upstream; greater regulation prior to 1960.

AVERAGE DISCHARGE.--32 years, 201 ft^3/s, 22.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,740 ft^3/s Apr. 2, 1976, gage height, 7.91 ft; minimum, 11 ft^3/s Aug. 29 to Sept. 1, 1953; minimum daily, 11 ft^3/s Aug. 29 to Sept. 1, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 ft^3/s Mar. 20, gage height, 5.72 ft, no peak above base of 1,700 ft^3/s; minimum 32 ft^3/s Sept. 17, gage height, 1.72 ft; minimum daily, 33 ft^3/s Sept. 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	64	46	226	130	88	70	175	896	574	51	57	95
2	57	105	205	120	85	72	210	997	424	52	84	78
3	54	168	189	105	330	76	245	1190	292	66	108	61
4	51	127	189	100	704	80	292	1090	229	103	93	53
5	46	481	179	90	430	82	352	891	238	89	66	48
6	44	429	165	76	360	86	437	731	272	72	54	44
7	41	275	163	80	250	88	483	555	682	67	49	43
8	124	157	140	78	155	105	669	405	490	63	51	41
9	216	121	125	74	130	125	713	695	357	58	98	41
10	136	100	115	70	110	155	731	661	227	57	164	39
11	87	92	105	400	105	333	713	598	179	55	112	39
12	68	92	88	594	100	298	736	540	153	52	133	39
13	60	190	78	460	92	219	704	424	135	50	210	39
14	60	207	70	440	88	196	727	332	120	48	148	37
15	63	154	78	340	86	178	778	305	106	46	83	35
16	102	122	250	230	84	247	754	399	97	47	65	33
17	121	104	520	200	82	267	754	349	97	53	55	34
18	101	98	310	180	80	334	678	267	117	50	59	36
19	80	92	240	160	78	661	544	216	102	43	50	43
20	67	88	150	140	76	1170	487	205	88	44	48	41
21	60	88	115	120	74	991	555	214	79	44	44	40
22	56	101	100	96	74	940	540	191	72	57	42	125
23	53	146	96	90	74	627	602	179	67	70	39	208
24	50	225	98	200	74	405	669	236	61	66	38	157
25	48	253	125	245	72	290	991	300	58	71	37	82
26	47	179	370	210	70	250	1040	250	55	79	34	64
27	46	150	310	160	70	220	957	369	56	58	43	57
28	45	140	240	120	70	187	854	501	59	49	88	53
29	44	130	240	105	---	189	803	387	58	43	120	49
30	44	220	215	95	---	166	740	335	54	44	78	45
31	43	---	145	92	---	164	---	515	---	49	87	---
TOTAL	2178	4880	5639	5600	4091	9271	18933	15223	5598	1796	2437	1799
MEAN	70.3	163	182	181	146	299	631	491	187	57.9	78.6	60.0
MAX	216	481	520	594	704	1170	1040	1190	682	103	210	208
MIN	41	46	70	70	70	70	175	179	54	43	34	33
CFSM	.58	1.34	1.49	1.48	1.20	2.45	5.17	4.03	1.53	.48	.64	.49
IN.	.66	1.49	1.72	1.71	1.25	2.83	5.77	4.64	1.71	.55	.74	.55

CAL YR 1982 TOTAL 67108 MEAN 184 MAX 2930 MIN 27 CFSM 1.51 IN 20.46
WTR YR 1983 TOTAL 77445 MEAN 212 MAX 1190 MIN 33 CFSM 1.74 IN 23.61

04296000 BLACK RIVER AT COVENTRY, VT.--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1977 to September 1981.
WATER TEMPERATURES: November 1977 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	BARO-METRIC PRES-SURE (MM OF HG)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
06...	1305	44	180	--	--	11.5	--	--	--	--	--
NOV											
19...	1120	91	135	--	--	0.5	--	--	--	--	--
30...	1045	223	162	746	7.9	0.5	--	14.2	101	970	95
JAN											
03...	1310	106	150	--	--	0.0	--	--	--	--	--
FEB											
02...	1030	85	190	747	8.0	0.0	1.2	12.7	89	90	92
10...	0840	115	140	--	--	0.0	--	--	--	--	--
MAR											
18...	0945	302	60	--	--	0.5	--	--	--	--	--
30...	1345	146	175	745	7.3	2.0	1.9	13.4	99	110	65
APR											
27...	0815	985	62	--	--	4.0	--	--	--	--	--
JUN											
01...	1030	586	128	738	7.3	11.5	5.4	10.6	100	1900	3500
10...	1110	229	140	--	--	14.0	--	--	--	--	--
JUL											
29...	1000	42	232	746	7.6	19.5	1.3	7.8	87	580	1200
AUG											
03...	0930	104	105	--	--	19.0	--	--	--	--	--
SEP											
02...	1640	67	170	--	--	22.5	--	--	--	--	--
21...	0930	36	265	739	7.5	17.0	1.1	9.8	104	150	820

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)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	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											
06...	--	--	--	--	--	--	--	--	--	--	--
NOV											
19...	--	--	--	--	--	--	--	--	--	--	--
30...	70	1.4	22	3.6	3.7	10	0.2	0.9	58	12	5.4
JAN											
03...	--	--	--	--	--	--	--	--	--	--	--
FEB											
02...	82	1.6	26	4.1	3.4	8	0.2	0.7	74	12	5.0
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
18...	--	--	--	--	--	--	--	--	--	--	--
30...	74	1.5	24	3.3	3.2	9	0.2	1.0	65	11	5.0
APR											
27...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	55	1.1	18	2.5	2.3	8	0.1	0.8	45	14	2.8
10...	--	--	--	--	--	--	--	--	--	--	--
JUL											
29...	110	2.2	36	5.0	3.2	6	0.1	1.1	99	13	7.4
AUG											
03...	--	--	--	--	--	--	--	--	--	--	--
SEP											
02...	--	--	--	--	--	--	--	--	--	--	--
21...	110	2.3	36	5.7	3.6	6	0.2	1.1	110	13	7.0

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)
OCT										
06...	--	--	--	--	--	--	--	--	--	--
NOV										
19...	--	--	--	--	--	--	--	--	--	--
30...	<0.1	6.2	103	89	0.38	0.12	0.15	0.4	0.05	0.15
JAN										
03...	--	--	--	--	--	--	--	--	--	--
FEB										
02...	<0.1	6.4	102	102	0.47	0.09	0.12	<0.1	0.01	0.03
10...	--	--	--	--	--	--	--	--	--	--
MAR										
18...	--	--	--	--	--	--	--	--	--	--
30...	<0.1	5.5	109	93	0.37	0.06	0.08	0.3	0.03	0.09
APR										
27...	--	--	--	--	--	--	--	--	--	--
JUN										
01...	<0.1	4.5	81	72	0.16	0.08	0.1	0.6	0.04	0.12
10...	--	--	--	--	--	--	--	--	--	--
JUL										
29...	0.1	4.6	153	130	0.13	0.02	0.03	0.4	0.03	0.09
AUG										
03...	--	--	--	--	--	--	--	--	--	--
SEP										
02...	--	--	--	--	--	--	--	--	--	--
21...	<0.1	4.5	145	136	<0.1	0.04	0.05	0.7	0.02	0.06

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT										
06...	--	--	--	--	--	--	--	--	--	--
NOV										
19...	--	--	--	--	--	--	--	--	--	--
30...	0.03	0.03	0.09	52	31	38	1	11.00	<1	<1
JAN										
03...	--	--	--	--	--	--	--	--	--	--
FEB										
02...	<0.01	<0.01	0.03	7	1.6	84	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
MAR										
18...	--	--	--	--	--	--	--	--	--	--
30...	0.02	0.00	--	15	5.9	87	1	37.00	<1	<1
APR										
27...	--	--	--	--	--	--	--	--	--	--
JUN										
01...	0.03	0.00	--	43	68	82	1	25.00	<1	<1
10...	--	--	--	--	--	--	--	--	--	--
JUL										
29...	0.04	<0.00	--	4	0.45	100	--	--	--	--
AUG										
03...	--	--	--	--	--	--	--	--	--	--
SEP										
02...	--	--	--	--	--	--	--	--	--	--
21...	0.00	<0.00	--	1	0.1	100	2	12.00	<1	<1

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	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)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
06...	--	--	--	--	--	--	--	--	--	--
NOV										
19...	--	--	--	--	--	--	--	--	--	--
30...	<3.00	4	160	4	35	<0.1	4	<1	1	4.00
JAN										
03...	--	--	--	--	--	--	--	--	--	--
FEB										
02...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
MAR										
18...	--	--	--	--	--	--	--	--	--	--
30...	<3.00	1	110	5	45	<0.1	1	<1	<1	6.00
APR										
27...	--	--	--	--	--	--	--	--	--	--
JUN										
01...	<3.00	4	100	<1	22	<0.1	1	<1	<1	5.00
10...	--	--	--	--	--	--	--	--	--	--
JUL										
29...	--	--	--	--	--	--	--	--	--	--
AUG										
03...	--	--	--	--	--	--	--	--	--	--
SEP										
02...	--	--	--	--	--	--	--	--	--	--
21...	<3.00	<1	120	3	56	<0.1	<1	<1	<1	<3.00

04296500 CLYDE RIVER AT NEWPORT, VT

LOCATION.--Lat 44°56'22", long 72°11'23", Orleans County, Hydrologic Unit 01110000, on right bank in Newport, just downstream from small right-bank tributary, and 1 mi upstream from mouth.

DRAINAGE AREA.--142 mi^2.

PERIOD OF RECORD.--Discharge: May 1909 to September 1919; May 1920 to August 1922, October 1922 to September 1924, November 1928 to May 1936, September 1938 to current year. Prior to November 1928, published as "at West Derby."
Water-quality records: Water years 1975-77.

REVISED RECORDS.--WSP 744: 1913(M), drainage area. WSP 924: 1940. WSP 1307: 1913-15(M).

GAGE.--Water-stage recorder and since Mar. 6, 1957, records of power generation. Datum of gage is 682.36 ft National Geodetic Vertical Datum of 1929. May 25, 1909, to Sept. 20, 1915, nonrecording gage, and Sept. 21, 1915, to Sept. 30, 1924, Nov. 16, 1928, to May 4, 1936, water-stage recorder, at site 0.65 mi upstream at different datum.

REMARKS.--Records fair. Flow regulated by powerplant and reservoirs upstream and, since Mar. 6, 1957, by diversion around station through canal and penstock of Newport No. 11 powerplant. Diversion computed from relation of kilowatt-hour output and measured discharge, discharge computed by adding flow over control to flow diverted through powerplant. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--64 years (water years 1910-19, 1921, 1923-24, 1929-35, 1939-83), 259 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft^3/s Mar. 20, 1936, gage height, 5.76 ft, site and datum then in use, from rating curve extended above 2,800 ft^3/s on basis of computation of peak flow over dam; maximum daily, 2,680 ft^3/s May 4, 1940; minimum daily, 2.6 ft^3/s June 18, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,010 ft^3/s Apr. 27; minimum daily, 23 ft^3/s Oct. 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	115	104	299	319	207	154	178	1220	481	143	160	118
2	23	91	331	348	204	172	169	1250	511	127	139	136
3	24	114	194	258	342	180	307	1300	539	144	110	105
4	99	129	378	262	419	179	428	1360	550	141	141	83
5	154	262	320	199	318	131	293	1360	548	141	117	92
6	182	186	328	147	350	167	317	1270	539	136	95	76
7	104	322	268	207	351	256	362	1110	553	148	62	112
8	114	330	281	219	334	192	383	932	575	147	139	94
9	80	420	275	133	327	194	475	941	575	142	126	106
10	48	356	288	164	332	320	474	956	569	151	163	79
11	120	342	208	213	345	308	483	974	554	165	150	71
12	106	264	88	305	303	185	487	971	534	163	282	84
13	174	198	282	324	233	298	491	879	500	152	133	82
14	157	222	230	394	275	372	536	789	455	152	124	75
15	138	290	149	298	192	260	600	736	409	135	179	62
16	139	274	180	340	203	267	652	727	414	121	207	76
17	127	233	306	282	183	318	670	694	269	118	224	72
18	150	306	255	312	260	329	669	658	295	140	269	70
19	135	236	246	294	169	341	689	628	272	138	174	44
20	125	176	223	241	167	472	676	600	264	119	117	67
21	179	160	229	233	176	489	678	567	268	129	146	54
22	142	276	221	230	159	529	682	533	275	112	132	77
23	126	223	224	337	183	627	708	494	269	119	133	125
24	92	254	236	373	152	600	736	484	252	91	125	102
25	120	137	210	278	182	564	844	456	198	149	110	88
26	99	272	160	264	155	514	1090	414	192	160	105	147
27	127	168	291	278	141	490	1270	415	216	163	70	154
28	125	258	304	280	173	487	1280	414	184	155	74	137
29	121	312	329	301	---	478	1220	413	142	144	123	156
30	92	307	414	195	---	441	1170	416	125	123	131	98
31	87	---	276	230	---	307	---	442	---	128	158	---
TOTAL	3624	7222	8023	8258	6835	10621	19017	24403	11527	4296	4418	2842
MEAN	117	241	259	266	244	343	634	787	384	139	143	94.7
MAX	182	420	414	394	419	627	1280	1360	575	165	282	156
MIN	23	91	88	133	141	131	169	413	125	91	62	44

CAL YR 1982 TOTAL 99079 MEAN 271 MAX 1740 MIN 13
WTR YR 1983 TOTAL 111086 MEAN 304 MAX 1360 MIN 23

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.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1983

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Merrimack River basin					
‡01081500	Merrimack River at Franklin Junction, NH	Lat 43°25'26", long 71°50'12", Merrimack County at Franklin Junction, NH. 1 mi downstream from confluence of Pemigewasset and Winnipesaukee Rivers.	1,507	1903-78†	3-22-83	12.92	15900
‡01082000	Contoocook River at Peterborough, NH	Lat 42°51'45", long 71°57'55", Hillsborough County, 1 mi south of Peterborough, and 1.5 mi upstream from Nubanusit Brook.	68.1	1964-77†, 1978-82	3-21-83	4.72	1340
‡01091500	Piscataquog River near Goffstown, NH	Lat 43°00'58", long 71°33'03", Hillsborough County, 0.2 mi upstream from Harry Brook, 0.9 mi downstream from Glen Lake, and 2,5 mi east of Goffstown, NH.	202	1939-78†	3-22-83	9.04	4160
‡01094000	Souhegan River at Merrimack, NH	Lat 42°51'27", long 71°30'24", Hillsborough County, at head of Wildcat Falls, 1.5 mi upstream from mouth.	171	1909-76‡ 1979-82	3-22-83	8.74	4700

† Operated as a continuous-record gaging station.
‡ Also a miscellaneous site.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by the letter a.

Discharge measurements made at miscellaneous sites during water year 1983

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Merrimack River basin						
01075000 Pemigewasset River	Merrimack River	Lat 43°58'34", long 71°40'48", Grafton County, 0.2 mi east of Woodstock, NH, and 0.7 mi upstream from Eastman Brook.	193	1940-77‡, 1978-82	5-13-83 7- 1-83	885 135
01076000 Baker River	Pemigewasset River	Lat 43°47'46", long 71°50'42", Grafton County, 0.3 mi upstream from Halls Brook, and 1.8 mi southwest of Rumney NH.	143	1929-77‡, 1978-82	5-16-83	476
01077510 Newfound River	do	Lat 43°37'05", long 71°44'25", Grafton County, at outlet of Newfound Lake, near State Highway 3A, 2.3 mi north of Bristol, NH.	96.4	1974-76	6-27-83 7- 6-83	55.8 45.9
*01081500 Merrimack River	Atlantic Ocean	Lat 43°25'26", long 71°39'12", Merrimack County, at Franklin Junction, NH, 1 mi downstream from confluence of Pemigewasset and Winnipesaukee Rivers.	-	1906-78‡, 1979-82	3-31-83 8- 8-83	3550 685
*01082000 Contoocook River	Merrimack River	Lat 42°51'45", long 71°57'35", Hillsborough County, 1,100 ft downstream from milldam, 1 mi south of Peterborough, NH, and 1.5 mi upstream from Nubanusit Brook.	68.1	1945-77‡, 1978-82	11-12-82 3-23-83	47.7 616
01088000 Contoocook River	do	Lat 43°17'12", long 71°35'56", Merrimack County, at Penacook, NH, 0.5 mi upstream from mouth.	766	1929-77‡, 1978-82	4- 1-83 8- 9-83	3180 115
*01089100 Soucook River	do	Lat 43°12'47", long 71°28'49", Merrimack County, at bridge on Pembroke Road 1.1 mi northeast of Concord Municipal Airport.	-	-	8-10-83 9-22-83	a9.53 a4.94
*01089200 Soucook River	do	Lat 43°10'56", long 71°29'36", Merrimack County, at bridge on State Highway 3, 1.7 mi southeast of Concord Municipal Airport.	-	-	8-10-83 9-22-83	a13.3 a8.81
*01091500 Piscataquog River	do	Lat 43°00'58", long 71°33'03", Hillsborough County, 0.2 mi upstream from Harry Brook, 0.9 mi downstream from Glen Lake, and 2.5 mi east of Goffstown, NH.	202	1939-78‡, 1979-82	10- 5-82 1- 3-83 6-13-83 9-12-83	38.0 130 201 19.1
*01094000 Souhegan River	do	Lat 42°51'27", long 71°30'24", Hillsborough County, at head of Wildcat Falls at Merrimack, NH, 1.5 mi upstream from mouth.	171	1909-76‡, 1979-82	10- 5-82 3-22-83 6-16-83	44.8 2430 261
Connecticut River basin						
01145000 Mascoma River	Connecticut River	Lat 43°39'00", long 72°04'50", Grafton County, on right bank 45 ft downstream from Boston and Maine Railroad bridge, 0.9 mi east of West Canaan, 1.2 mi downstream from Indian River, 3.5 mi west of Canaan and at mile 19.3.	80.5	1939-78‡, 1979-82	5-16-83	186
01152010 Sugar River	do	Lat 43°23'10", long 72°23'16", Sullivan County, 1 mi below dam at outlet of Sunapee Lake at Sunapee, NH.	45.5	1976, 1979-82	11-16-82 1- 6-83 6-11-83 8- 9-83	7.14 8.53 6.26 42.4

‡ Operated as a continuous-record gaging station.
* Also a crest-stage partial record station.

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
ANDROSCOGGIN RIVER BASIN									
01052500 DIAMOND RIVER NEAR WENTWORTH LOCATION, NH ((LAT 44 52 40 LONG 071 03 25)									
OCT 1982					APR 1983				
04...	1000	62.8	11.0	40	29...	0945	2670	3.0	22
DEC					JUN				
07...	1115	450	3.5	30	28...	1230	87.8	17.0	38
FEB 1983					AUG				
07...	0930	515	0.0	45	17...	0930	69.9	18.0	41
01053500 ANDROSCOGGIN RIVER AT ERROL, NH (LAT 44 46 57 LONG 071 07 46)									
OCT 1982					APR 1983				
04...	1230	1670	14.0	28	29...	1230	3940	0.5	24
DEC					JUN				
07...	0840	1320	3.0	28	28...	0920	2010	20.0	29
FEB					AUG				
07...	1120	1630	0.5	32	17...	1130	1680	21.0	31
01054000 ANDROSCOGGIN RIVER NEAR GORHAM, NH (LAT 44 26 10 LONG 071 11 27)									
OCT 1982					APR 1983				
04...	1420	1930	13.0	66	29...	1515	7010	8.0	147
DEC					JUN				
06...	1600	1690	5.5	90	28...	0700	2190	21.0	71
FEB					AUG				
07...	1245	2230	0.5	80	17...	1430	1790	21.5	66
SACO RIVER BASIN									
01064300 ELLIS RIVER NEAR JACKSON, NH (LAT 44 13 12 LONG 071 15 00)									
OCT 1982					MAY 1983				
12...	1350	18	6.0	15	13...	0850	42	5.0	32
JAN 1983					JUN				
10...	1500	27	0.0	15	20...	1515	22	14.0	30
FEB					SEP				
22...	1620	12	0.0	16	19...	1630	7.0	9.0	31
APR									
07...	0900	24	0.0	26					
01064400 LUCY BROOK NEAR NORTH CONWAY, NH (LAT 44 04 10 LONG 071 10 30)									
OCT 1982					MAY 1983				
12...	1600	2.0	6.0	15	31...	1035	13	4.0	18
NOV					JUN				
22...	1600	4.0	1.0	18	21...	0910	4.0	14.0	21
FEB 1983					AUG				
23...	1040	4.0	0.0	14	17...	1155	2.0	12.0	23
APR					SEP				
07...	1050	15	0.0	19	20...	1100	1.0	14.0	25
01064500 SACO RIVER NEAR CONWAY, NH (LAT 43 59 27 LONG 071 05 29)									
OCT 1982					JUN 1983				
12...	1100	379	7.0	36	20...	1200	631	14.0	38
FEB					AUG				
22...	1300	560	0.0	27	12...	1500	256	17.5	38
APR					SEP				
06...	1200	1370	2.0	36	19...	1400	153	16.0	50
MAY									
12...	1400	1840	9.0	32					
01065000 OSSIPEE RIVER AT EFFINGHAM FALLS, NH (LAT 43 47 44 LONG 071 03 36)									
FEB 1983					AUG 1983				
22...	1210	494	0.0	42	11...	1240	204	23.5	38
MAY					SEP				
12...	1205	1280	16.0	30	19...	1230	182	19.0	37
JUN									
20...	1135	488	23.0	31					
PISCATAQUA RIVER BASIN									
01072100 SALMON FALLS RIVER AT MILTON, NH (LAT 43 24 50 LONG 070 59 15)									
FEB 1983					JUN 1983				
16...	1400	191	0.0	15	14...	1410	173	20.0	46
MAY									
04...	1600	656	14.0	41					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
PISCATAQUA RIVER BASIN--Continued									
01073000 OYSTER RIVER NEAR DURHAM, NH (LAT 43 08 55 LONG 070 57 56)									
NOV 1982					MAY 1983				
18...	1530	9.0	3.0	--	04...	1255	49	15.0	87
JAN 1983					JUN				
05...	1042	4.0	0.0	148	14...	1100	2.0	18.0	111
FEB					AUG				
16...	1200	16	0.0	135	01...	1445	2.0	22.5	270
MAR									
28...	1530	111	1.0	65					
01073500 LAMPREY RIVER NEAR NEWMARKET, NH (LAT 43 06 09 LONG 070 57 11)									
FEB 1983					JUN 1983				
24...	1032	277	0.0	48	27...	1117	63	21.0	97
MAR					AUG				
21...	1410	4270	4.0	39	29...	1120	8.0	21.0	113
01073600 DUDLEY BROOK NEAR EXETER, NH (LAT 42 59 37 LONG 071 01 24)									
JAN 1983					APR 1983				
05...	1245	0.66	0.0	162	25...	1104	135	8.0	70
FEB					MAY				
24...	1345	11	0.0	150	25...	1205	12	14.0	108
MAR					AUG				
30...	1020	16	0.0	106	01...	1630	0.16	22.0	185
MERRIMACK RIVER BASIN									
01075800 STEVENS BROOK NEAR WENTWORTH, NH (LAT 43 50 12 LONG 071 53 07)									
JUN 1983									
30...	1320	--	16.0	43					
01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH (LAT 43 45 33 LONG 071 41 10)									
JUN 1983									
27...	1250	89	19.5	62					
01077000 SQUAM RIVER AT ASHLAND, NH (LAT 43 42 19 LONG 071 37 49)									
JUN 1983									
22...	1420	132	14.5	46					
01078000 SMITH RIVER NEAR BRISTOL, NH (LAT 43 34 04 LONG 071 44 54)									
JUL 1983									
11...	1120	21	14.0	76					
01081000 WINNIPESAUKEE RIVER AT TILTON, NH (LAT 43 26 31 LONG 071 35 20)									
OCT 1982					MAY 1983				
07...	1500	270	15.0	71	05...	1515	2770	13.0	56
MAR 1983					AUG				
15...	1205	2490	2.0	62	02...	1515	285	23.5	64
01083000 NUBANUSIT BROOK NEAR PETERBOROUGH, NH (LAT 42 53 10 LONG 071 58 24)									
OCT 1982					AUG 1983				
01...	1245	21	16.0	34	04...	1115	3.0	22.0	58
NOV									
12...	1140	40	8.0	55					
01085500 CONTOOCOOK R BL HOPKINTON DAM AT W HOPKINTON, NH (LAT 43 11 31 LONG 071 44 51)									
OCT 1982					MAY 1983				
04...	1430	37	14.0	64	03...	0920	2930	13.0	42
DEC					JUN				
07...	1203	342	2.0	51	13...	1050	520	16.0	66
JAN 1983					JUL				
03...	1515	357	0.0	58	28...	1530	62	19.0	75
FEB					SEP				
14...	1300	454	1.0	69	09...	1340	30	21.0	100
MAR									
25...	1220	4470	0.0	45					
01085800 WEST BRANCH WARNER RIVER NEAR BRADFORD, NH (LAT 43 15 33 LONG 072 01 35)									
NOV 1982					AUG 1983				
10...	1330	3.0	6.5	31	03...	1430	1.0	20.0	41

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
MERRIMACK RIVER BASIN--Continued				
01087000 BLACKWATER RIVER NEAR WEBSTER, NH (LAT 43 17 45 LONG 071 41 46)				
JAN 1983				
03...	1130	88	0.0	13
FEB				
14...	1100	155	0.0	50
MAY 1983				
02...	1300	739	11.0	39
JUL				
28...	1225	20	20.0	63
01089000 SOUCOOK RIVER NEAR CONCORD, NH (LAT 43 14 22 LONG 071 27 44)				
OCT 1982				
06...	1620	33	15.0	56
JAN 1983				
05...	1615	67	0.0	45
FEB				
15...	1045	143	0.0	14
MAR 1983				
21...	1030	785	2.0	39
JUN				
15...	0945	76	18.0	63
AUG				
09...	1230	9.0	21.5	82
01090800 PISCATAQUOG RIVER BL EVERETT DAM, NR E WEARE, NH (LAT 43 05 29 LONG 071 39 36)				
JUN 1983				
27...	--	27	--	39
SEP 1983				
16...	1115	3.0	--	47
01091500 PISCATAQUOG RIVER NEAR GOFFSTOWN, NH (LAT 43 00 58 LONG 071 33 03)				
OCT 1982				
05...	0915	38	13.0	68
JAN 1983				
03...	1015	133	0.0	32
JUN 1983				
13...	1335	212	22.0	53
SEP				
12...	1315	20	19.0	72
01092000 MERRIMACK R NR GOFFS FALLS, BELOW MANCHESTER, NH (LAT 42 56 54 LONG 071 27 52)				
JAN 1983				
13...	1200	12000	0.0	51
MAR 1983				
22...	1200	26100	3.0	44
01093800 STONY BROOK TRIBUTARY NEAR TEMPLE, NH (LAT 42 51 36 LONG 071 50 00)				
OCT 1982				
01...	1000	2.0	13.0	17
NOV				
07...	0930	5.0	3.5	20
AUG 1983				
04...	0910	1.0	20.0	27
01094000 SOUHEGAN RIVER AT MERRIMACK, NH (LAT 42 51 27 LONG 071 30 24)				
MAR 1983				
22...	1530	2360	3.0	59
JUN 1983				
12...	1345	254	20.0	87
CONNECTICUT RIVER BASIN				
01127880 BIG BROOK NEAR PITTSBURG, NH (LAT 45 08 06 LONG 071 12 23)				
NOV 1982				
15...	1340	18	2.0	36
FEB 1983				
14...	1430	4.0	1.0	50
15...	0830	4.0	0.0	49
JUN 1983				
20...	1630	5.0	14.0	51
01128500 CONNECTICUT R AT FIRST CONN LK NR PITTSBURG, NH (LAT 45 05 14 LONG 071 17 34)				
JUN 1983				
20...	1415	142	19.0	35
01129200 CONNECTICUT R BL INDIAN STREAM NR PITTSBURG, NH (LAT 45 02 25 LONG 071 26 37)				
JUN 1983				
20...	1315	553	13.5	43
01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH (LAT 44 44 56 LONG 071 37 50)				
JUN 1983				
22...	0830	1560	14.5	63
01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH (LAT 44 37 30 LONG 071 28 10)				
JUN 1983				
22...	1020	188	19.5	44
01131500 CONNECTICUT RIVER NEAR DALTON, NH (LAT 44 24 36 LONG 071 43 16)				
JUN 1983				
28...	1100	1170	19.0	78

CONNECTICUT RIVER BASIN--Continued

01134500 MOOSE RIVER AT VICTORY, VT (LAT 44 30 42 LONG 071 50 13)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1982					APR 1983				
05...	1500	33	14.0	38	22...	1025	270	3.0	22
06...	0835	30	9.0	20	MAY				
NOV					04...	1420	1830	8.5	28
23...	1340	210	3.5	40	JUN				
DEC					08...	1145	300	13.0	22
30...	0920	--	0.0	42	JUL				
FEB 1983					18...	1135	20	22.0	40
10...	1445	70	0.0	130	SEP				
MAR					07...	1210	19	21.0	38
16...	0930	130	0.5	55					

01135000 MOOSE RIVER AT ST. JOHNSBURY, VT (LAT 44 25 22 LONG 072 00 02)

OCT 1982					MAY 1983				
05...	1145	44	11.0	70	04...	1135	1740	10.0	43
NOV					JUN				
22...	1510	260	9.5	60	14...	0925	130	20.5	55
23...	0925	330	4.5	45	JUL				
DEC					18...	1405	350	24.5	75
30...	1400	300	0.0	42	SEP				
MAR 1983					06...	1535	460	24.5	75
16...	1130	240	0.5	74					
APR									
22...	1250	450	5.5	38					

01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT (LAT 44 21 56 LONG 072 02 23)

OCT 1982					APR 1983				
05...	1340	240	14.0	190	22...	1400	1390	5.0	87
NOV					28...	1000	2770	5.0	95
22...	0935	600	4.5	135	JUN				
23...	1115	820	5.5	115	14...	1030	560	20.5	105
DEC					JUL				
30...	1200	870	0.0	108	19...	1100	226	22.0	122
MAR 1983					SEP				
21...	0800	2680	5.0	85	07...	1545	180	24.0	80

01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH (LAT 44 16 08 LONG 071 37 52)

FEB 1983					JUN 1983				
17...	1255	100	0.0	41	28...	1230	87	14.5	45

01139000 WELLS RIVER AT WELLS RIVER, VT (LAT 44 09 03 LONG 072 03 55)

OCT 1982					APR 1983				
25...	1000	30	4.5	125	01...	0945	128	1.0	100
DEC					MAY				
01...	1330	120	3.5	78	16...	1015	507	9.0	75
JAN 1983					JUN				
11...	0900	--	0.0	110	28...	1100	98	16.5	125
FEB					AUG				
28...	1100	67	0.0	105	09...	1000	245	22.0	98

01139800 EAST ORANGE BRANCH AT EAST ORANGE, VT (LAT 44 05 34 LONG 072 20 10)

OCT 1982					APR 1983				
25...	1300	2.0	4.5	195	01...	1230	17	1.5	175
DEC					MAY				
06...	1430	4.0	7.5	190	16...	1335	45	8.0	125
JAN 1983					JUN				
11...	1115	44	0.0	115	28...	1330	11	14.5	185
FEB					AUG				
22...	0920	7.0	0.0	180	08...	1015	2.0	17.5	180

01141500 OMPOMPANOOSUC RIVER AT UNION VILLAGE, VT (LAT 43 47 23 LONG 072 15 19)

OCT 1982					APR 1983				
29...	0945	21	6.0	105	06...	1315	398	4.0	125
DEC					MAY				
06...	0945	63	6.0	158	20...	1230	346	10.0	125
JAN 1983					JUL				
13...	1315	90	0.0	132	07...	1400	78	20.5	190
FEB					AUG				
25...	1345	99	0.0	155	26...	1300	16	22.0	190

01141800 MINK BROOK NEAR ETNA, NH (LAT 43 42 08 LONG 072 11 15)

JUN 1983									
23...	1430	1.0	18.0	87					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
CONNECTICUT RIVER BASIN--Continued									
01142500 AYERS BROOK AT RANDOLPH, VT (LAT 43 56 04 LONG 072 39 30)									
OCT 1982					APR 1983				
28...	1445	8.0	7.0	220	04...	1435	92	2.0	162
NOV					MAY				
30...	0945	23	2.5	175	17...	1135	97	7.0	155
JAN 1983					JUN				
10...	1345	12	0.0	195	27...	0850	30	15.5	195
FEB					AUG				
22...	1500	25	0.0	145	10...	0920	9.0	17.0	125
01144000 WHITE RIVER AT WEST HARTFORD, VT (LAT 43 42 51 LONG 072 25 07)									
OCT 1982					APR 1983				
27...	1245	2000	7.5	155	06...	1045	2180	3.0	98
DEC					MAY				
03...	1300	630	6.0	108	19...	1230	1690	10.5	125
JAN 1983					JUL				
13...	1115	930	0.0	--	06...	1330	450	22.5	175
FEB					AUG				
25...	1100	530	0.0	130	26...	1030	200	20.0	180
01144500 CONNECTICUT RIVER AT WEST LEBANON, NH (LAT 43 38 47 LONG 072 18 46)									
OCT 1982					APR 1983				
14...	1245	4410	14.0	88	06...	1000	8080	3.5	95
DEC					MAY				
03...	1200	10100	4.5	80	19...	0930	14300	10.5	58
JAN 1983					JUL				
13...	1030	--	0.0	78	06...	1130	4640	22.5	95
FEB									
25...	0830	6430	0.0	85					
01150500 MASCOMA RIVER AT MASCOMA, NH (LAT 43 39 01 LONG 072 11 05)									
FEB 1983					JUN 1983				
18...	1015	87	2.0	62	23...	1045	108	24.5	54
01151500 OTTAUQUECHEE RIVER AT NORTH HARTLAND, VT (LAT 43 36 09 LONG 072 21 17)									
OCT 1982					APR 1983				
27...	0945	35	6.5	128	07...	0930	1110	4.0	100
DEC					MAY				
03...	0945	160	3.0	76	19...	1000	513	10.0	104
JAN 1983					JUL				
14...	0915	151	0.0	38	06...	1030	162	23.5	175
MAR					AUG				
01...	0915	164	0.5	130	24...	1100	32	19.5	192
01152500 SUGAR RIVER AT WEST CLAREMONT, NH (LAT 43 23 15 LONG 072 21 45)									
OCT 1982					DEC 1982				
06...	1400	60	15.0	148	28...	1300	220	1.0	83
NOV									
10...	1140	100	7.0	162					
01153000 BLACK RIVER AT NORTH SPRINGFIELD, VT (LAT 43 20 00 LONG 072 30 55)									
NOV 1982					DEC 1982				
10...	0900	63	7.0	134	28...	1115	190	1.5	81
01153500 WILLIAMS RIVER AT BROCKWAYS MILLS, VT (LAT 43 12 31 LONG 072 31 05)									
NOV 1982					DEC 1982				
16...	1220	60	3.0	125	30...	1015	80	2.0	111
01155500 WEST RIVER AT JAMAICA, VT (LAT 43 06 32 LONG 072 46 33)									
OCT 1982					AUG 1983				
05...	0945	32	13.0	71	02...	0845	90	21.0	73
NOV									
09...	0940	110	7.0	58					
01156000 WEST RIVER AT NEWFANE, VT (LAT 42 59 43 LONG 072 38 13)									
OCT 1982					MAR 1983				
05...	1145	60	20.0	66	17...	1230	960	5.0	59
NOV					AUG				
09...	1130	140	9.0	65	02...	1045	60	25.0	82

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
CONNECTICUT RIVER BASIN--Continued									
01158000 ASHUELOT RIVER BL SURRY MT DAM, NR KEENE, NH (LAT 42 59 40 LONG 072 18 40)									
OCT 1982					AUG 1983				
08...	1025	74	16.0	27	02...	1415	8.2	28.0	53
NOV									
09...	1345	16	10.0	43					
01158600 OTTER BROOK BELOW OTTER BROOK DAM, NR KEENE, NH (LAT 42 56 45 LONG 072 14 14)									
OCT 1982					NOV 1982				
07...	1335	6.0	17.5	38	12...	1010	16	9.0	49
01161000 ASHUELOT RIVER AT HINSDALE, NH (LAT 42 47 07 LONG 072 29 12)									
OCT 1982					AUG 1983				
05...	1335	215	17.0	149	02...	1245	70	27.0	262
05...	1410	220	17.0	150					
HUDSON RIVER BASIN									
01329000 BATTEN KILL AT ARLINGTON, VT (LAT 43 04 38 LONG 073 09 26)									
NOV 1982					MAR 1983				
08...	1145	140	8.0	216	16...	1210	320	5.0	234
JAN 1983					AUG				
03...	1200	200	2.5	144	01...	1200	80	22.0	282
01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT (LAT 42 54 47 LONG 073 15 25)									
OCT 1982					MAR 1983				
04...	1300	40	16.0	255	16...	1335	200	5.0	216
NOV					AUG				
08...	1315	80	8.5	245	01...	1330	50	24.0	261
ST. LAWRENCE RIVER BASIN									
04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT (LAT 43 37 40 LONG 073 18 50)									
NOV 1982					APR 1983				
01...	1310	205	12.5	152	08...	1200	445	6.5	118
DEC					JUN				
02...	1400	8.0	6.0	205	30...	1250	4.0	19.5	115
JAN 1983					AUG				
12...	1315	253	1.0	110	15...	1415	110	22.0	145
FEB									
24...	1320	159	1.0	180					
04282000 OTTER CREEK AT CENTER RUTLAND, VT (LAT 43 36 13 LONG 073 00 49)									
OCT 1982					APR 1983				
29...	1345	113	7.5	195	08...	1415	1150	5.5	110
DEC					MAY				
02...	1610	393	6.0	120	18...	1510	817	10.5	160
JAN 1983					JUN				
12...	1535	708	1.0	94	30...	1450	200	19.0	180
FEB					AUG				
24...	1515	379	1.0	195	16...	1215	236	18.5	200
04282500 OTTER CREEK AT MIDDLEBURY, VT (LAT 44 00 47 LONG 073 10 06)									
NOV 1982					APR 1983				
01...	0930	127	9.0	158	08...	0900	1510	5.0	75
DEC					MAY				
02...	1100	781	6.5	164	18...	1000	3060	11.5	125
JAN 1983					JUN				
12...	1000	1180	0.5	150	29...	1315	433	18.5	200
FEB					AUG				
24...	1020	666	0.0	190	17...	1230	412	19.5	168
04284000 JAIL BRANCH AT EAST BARRE, VT (LAT 44 09 30 LONG 072 26 44)									
OCT 1982					APR 1983				
26...	1415	6.0	7.5	240	07...	1340	120	1.5	95
DEC					MAY				
06...	1315	12	7.5	200	17...	0850	140	6.5	125
JAN 1983					JUN				
11...	1340	206	0.0	96	27...	1430	40	20.0	140
FEB					AUG				
22...	1200	21	0.0	185	08...	1450	6.0	26.0	120

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

ST. LAWRENCE RIVER BASIN--Continued

04285500 NORTH BRANCH WINOOSKI RIVER AT WRIGHTSVILLE, VT (LAT 44 17 58 LONG 072 34 45)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1982				
13...	1445	30	9.5	--
NOV				
24...	1535	161	5.0	40
26...	1340	100	3.5	45
DEC				
28...	1340	150	5.0	30
FEB 1983				
11...	1440	--	0.0	100
14...	1440	520	0.0	40
MAR				
16...	1535	170	1.5	47
17...	0930	170	3.0	44
APR 1983				
28...	1520	680	5.0	28
29...	0825	710	5.0	28
JUN				
06...	1510	150	13.5	32
07...	0905	320	11.5	35
JUL				
20...	1125	40	24.0	52
26...	1420	20	24.5	60
AUG				
30...	1025	8.0	21.5	85

04286000 WINOOSKI RIVER AT MONTPELIER, VT (LAT 44 15 23 LONG 072 35 36)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1982				
21...	1300	135	12.0	195
NOV				
29...	1115	280	1.0	185
JAN 1983				
10...	1020	286	0.0	160
FEB				
23...	1130	250	0.0	195
APR 1983				
04...	1155	932	1.5	115
MAY				
17...	1415	1360	10.0	106
JUN				
24...	1410	190	25.5	200
AUG				
18...	1020	218	20.0	183

04287000 DOG RIVER AT NORTHFIELD FALLS, VT (LAT 44 10 58 LONG 072 38 27)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1982				
28...	0900	17	5.0	165
NOV				
29...	1315	56	1.0	--
JAN 1983				
27...	0745	74	0.0	--
FEB				
23...	1330	68	0.0	120
JUN 1983				
27...	1100	60	17.5	145
JUL				
26...	0815	16	16.0	90
AUG				
29...	0800	50	18.0	60

04288000 MAD RIVER NEAR MORETOWN, VT (LAT 44 16 42 LONG 072 44 37)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1982				
21...	0915	101	10.5	58
NOV				
29...	0915	197	0.5	65
JAN 1983				
10...	0830	65	0.0	38
FEB				
23...	0930	143	0.0	72
APR 1983				
04...	0920	319	1.0	72
MAY				
13...	1320	538	8.0	48
JUN				
24...	1135	57	23.0	88
AUG				
11...	1015	86	17.0	85

04289000 LITTLE RIVER NEAR WATERBURY, VT (LAT 44 22 12 LONG 072 46 11)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1982				
14...	1005	450	9.0	--
NOV				
17...	1535	480	6.0	65
DEC				
27...	1410	450	1.0	49
FEB 1983				
08...	1510	470	0.0	47
MAR				
14...	0835	480	0.5	60
APR 1983				
28...	1250	560	7.0	38
JUN				
06...	1045	560	11.0	40
JUL				
21...	0930	7.0	18.0	75
AUG				
30...	1425	420	21.5	85

04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT (LAT 44 28 44 LONG 073 08 21)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1982				
04...	1155	458	16.5	175
NOV				
17...	1350	822	8.5	120
DEC				
27...	1135	1870	0.5	50
FEB 1983				
07...	1120	--	0.0	80
MAR				
15...	0820	1700	0.5	75
APR 1983				
25...	1605	16600	4.0	40
JUN				
03...	0955	3090	14.5	73
JUL				
13...	1320	700	24.5	--
25...	1340	1480	24.0	210
AUG				
31...	1140	1720	23.0	135

ST. LAWRENCE RIVER BASIN--Continued

04292000 LAMOILLE RIVER AT JOHNSON, VT (LAT 44 37 22 LONG 072 40 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1982					APR 1983				
05...	0800	144	11.5	80	25...	1010	400	3.0	40
NOV					JUN				
18...	1035	240	1.5	115	09...	1045	800	12.5	90
DEC					JUL				
28...	1015	620	0.5	85	15...	1115	160	24.0	--
FEB 1983					29...	1435	130	22.5	110
08...	0900	--	0.0	93	SEP				
14...	1305	280	0.0	60	01...	1035	330	20.0	126
MAR									
15...	1255	390	0.5	115					

04292500 LAMOILLE RIVER AT EAST GEORGIA, VT (LAT 44 40 45 LONG 073 04 23)

OCT 1982					APR 1983				
14...	1135	480	9.0	--	26...	0825	10200	4.5	60
NOV					JUN				
24...	1330	1710	7.0	80	09...	1420	1490	16.5	85
DEC					JUL				
29...	1025	1790	2.0	87	15...	0945	215	24.0	--
FEB 1983					27...	1315	500	23.5	125
08...	1145	1300	0.0	--	AUG				
MAR					31...	1510	560	24.5	165
15...	1010	1050	0.5	110					

04293000 MISSISQUOI RIVER NEAR NORTH TROY, VT (LAT 44 58 22 LONG 072 23 15)

OCT 1982					APR 1983				
12...	1405	95	9.5	80	26...	1530	165	4.0	45
NOV					JUN				
18...	1540	141	2.5	70	13...	1210	70	22.5	72
19...	0815	125	0.5	80	AUG				
DEC					01...	1240	--	22.0	107
29...	1610	434	0.5	71	02...	1105	--	21.0	54
FEB 1983					SEP				
09...	1530	170	0.0	110	02...	1325	50	20.0	105
MAR									
17...	1325	310	0.5	60					

04293500 MISSISQUOI RIVER NEAR EAST BERKSHIRE, VT (LAT 44 57 30 LONG 072 41 55)

OCT 1982					APR 1983				
12...	1145	329	10.5	85	26...	1155	5730	5.0	48
14...	1245	267	9.0	--	MAY				
NOV					05...	1045	3450	9.5	26
18...	1225	544	2.5	85	JUN				
DEC					13...	1015	405	19.0	48
29...	1415	1610	1.5	65	AUG				
FEB 1983					01...	1105	445	23.0	117
09...	1155	851	0.0	68	SEP				
MAR					01...	1520	158	22.5	120
17...	1140	--	0.5	65					

04296500 CLYDE RIVER AT NEWPORT, VT (LAT 44 56 22 LONG 072 11 23)

NOV 1982					JAN 1983				
24...	1025	8.6	6.5	165	03...	0845	6.0	0.0	170
26...	0950	6.3	3.0	--					

CHESHIRE COUNTY

425543072175801. Local number, KEW 2.
LOCATION.--Lat 42°55'43", long 72°17'58", Hydrologic Unit 01080201, east side of State Highway 12, about 0.5 mi north of State Highway 9, and 1.1 mi southwest of the center of Keene.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in, depth 18 ft.
DATUM.--Altitude of land-surface datum is 475 ft. Measuring point: Top of casing, 4.5 ft above land-surface datum.
PERIOD OF RECORD.--August 1963 to current year. Prior to January 1973, published in New Hampshire Hydrologic-Data Report No. 3.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.5 ft below land-surface datum, Nov. 28, 1963; lowest measured, 6.23 ft below land-surface datum, Sept. 27, 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 20, 1982	4.27	JAN 20, 1983	3.47	APR 21, 1983	1.40	JUL 21, 1983	4.98
NOV 22	3.50	FEB 24	3.28	MAY 21	2.91	AUG 22	5.49
DEC 21	3.41	MAR 22	1.34	JUN 23	4.16	SEP 22	5.48

COOS COUNTY

444733071094901. Local number, ETW 1.
LOCATION.--Lat 44°47'33", long 71°09'49", Hydrologic Unit 01040001, southwest side of State Highway 26, 1.8 mi northwest of the center of Errol.
Owner: U.S. Geological Survey.
AQUIFER.--Very fine sand and silt of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 1.25 in, depth 30 ft.
DATUM.--Altitude of land-surface datum is 1,245 ft. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.4 ft below land-surface datum, May 22, 1969; lowest measured, 14.1 ft below land-surface datum, Feb. 22, 1975.

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 23, 1982	12.7	JAN 26, 1983	13.2	APR 21, 1983	12.0	JUL 23, 1983	12.6
NOV 21	12.7	FEB 20	13.6	MAY 24	11.8	AUG 23	12.8
DEC 21	13.1	MAR 19	13.3	JUN 23	12.0	SEP 24	12.9

442830071321001. Local number, LCW 1.
LOCATION.--Lat 44°28'30", long 71°32'10", Hydrologic Unit 01080101, in gravel pit about 1,100 ft southwest of Middle Street, 2.2 mi southeast of U.S. Highway 3, and 2.0 mi southeast of the center of Lancaster.
Owner: Town of Lancaster.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2.5 in, depth 30 ft.
DATUM.--Altitude of land-surface datum is 940 ft. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--November 1966 to May 1980, April 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing at 1.0 ft above land-surface datum, April 1970, Apr. 28, 1972, Dec. 21, 1982; lowest measured, 6.93 ft below land-surface datum, July 24, 1970.

WATER LEVEL, IN FEET ABOVE OR BELOW (-) LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1982	-2.15	JAN 21, 1983	0.34	APR 24, 1983	-0.73	JUL 22, 1983	-2.16
NOV 22	-1.58	FEB 23	-0.04	MAY 24	-0.89	AUG 24	-2.29
DEC 21	1.00F	MAR 24	0.31	JUN 24	-1.99	SEP 24	-2.16

F flowing.

HILLSBOROUGH COUNTY

425303071283701. Local number, MKW 22.
LOCATION.--Lat 42°53'03", long 71°28'37", Hydrologic Unit 01070002, north side of Damon Clinic on west side of U.S. Highway 3, about 400 ft south of Bedford Road, in Reeds Ferry in Merrimack.
Owner: H. A. Damon.
AQUIFER.--Gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug, unused water-table well, diameter 36 in, depth 16.9 ft.
DATUM.--Altitude of land-surface datum is about 195 ft. Measuring point: Bottom rim of hand pump, 0.80 ft above land-surface datum.
PERIOD OF RECORD.--November 1958 to current year. Prior to May 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.96 ft below land-surface datum, Mar. 30, 1962; lowest measured, 12.57 ft below land-surface datum, Nov. 20, 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 25, 1982	10.15	JAN 25, 1983	6.71	APR 26, 1983	4.87	JUL 25, 1983	8.39
NOV 22	8.35	FEB 23	6.62	MAY 23	6.05	AUG 22	11.09
DEC 21	8.57	MAR 22	4.26	JUN 21	6.67	SEP 26	12.20

425024071413001. Local number, MOW 36.
LOCATION.--Lat 42°50'24", long 71°41'30", Hydrologic Unit 01070002, 85 ft from north side of Old Wilton Road, about 550 ft west of the intersection of State Highway 101, and 2.2 mi west of the center of Milford.
Owner: Leonard Cushing.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Dug, unused water-table well, diameter 36 in, depth 14.6 ft, lined with concrete.
DATUM.--Altitude of land-surface datum is about 265 ft. Measuring point: Top of concrete casing on south side of well, 1.60 ft above land-surface datum.
PERIOD OF RECORD.--January 1962 to current year. Prior to May 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.68 ft below land-surface datum, Mar. 29, 1963; lowest measured, 12.30 ft below land-surface datum, Nov. 18, 1978.

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 21, 1982	8.60	JAN 21, 1983	7.80	APR 23, 1983	6.80	JUL 28, 1983	8.75
NOV 21	8.19	FEB 22	7.62	MAY 24	7.13	AUG 24	9.58
DEC 22	8.25	MAR 22	5.98	JUN 24	7.78	SEP 24	9.63

424752071315202. Local number, NAW 143. (42475207131201) Formerly published as this number.
LOCATION.--Lat 42°47'52", long 71°31'52", Hydrologic Unit 01070002, north side of State Highway 101-A, about 3.0 mi west of U.S. Highway 3 opposite Round Pond, and 3.9 mi west-northwest of the center of Nashua.
Owner: Roland Cadorette.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 1.25 in, depth 13.0 ft.
DATUM.--Altitude of land-surface datum is 200 ft. Measuring point: Top of casing, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--December 1958 to August 1959; Janury 1962 to current year. Prior to May 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.11 ft below land-surface datum, Apr. 26, 1983; lowest measured, 11.65 ft below land-surface datum, June 25, 1975.

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 25, 1982	8.51	JAN 25, 1983	8.24	APR 26, 1983	6.11	JUL 25, 1983	7.57
NOV 22	8.52	FEB 23	7.96	MAY 23	6.53	AUG 22	8.22
DEC 21	8.81	MAR 22	6.18	JUN 21	6.88	SEP 26	8.77

HILLSBOROUGH COUNTY--Continued

424800071295301. Local number, NAW 218.
LOCATION.--Lat 42°48'00", long 71°29'53", Hydrologic Unit 01070002, 57 ft east of edge of pavement of northbound lane of Everett Turnpike, about 0.63 mi north of Tinker Road overpass, and 2.8 mi northwest of the center of Nashua.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in, depth 42.5 ft.
DATUM.--Altitude of land-surface datum is 205 ft. Measuring point: Top of casing, 3.1 ft above land-surface datum.
PERIOD OF RECORD.--October 1964 to current year. Prior to June 1966, published in New Hampshire Basic-Data Report No. 2, Ground-Water Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.39 ft below land-surface datum, July 17, 1978; lowest measured, 33.10 ft below land-surface datum, Nov. 25, 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 25, 1982	29.01	JAN 25, 1983	28.37	APR 26, 1983	26.44	JUL 25, 1983	27.93
NOV 22	29.17	FEB 23	27.96	MAY 23	26.90	AUG 22	28.52
DEC 21	29.02	MAR 22	26.47	JUN 21	26.90	SEP 26	29.72

MERRIMACK COUNTY

431224071303601. Local number, CVW 2.
LOCATION.--Lat 43°12'24", long 71°30'36", Hydrologic Unit 01070002, about 100 ft north of the Federal Aeronautics Administration Building at Concord Municipal Airport.
Owner: U.S. Geological Survey.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 2 in, depth 60 ft.
DATUM.--Altitude of land-surface datum is 340 ft. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--August 1963 to May 1965, August 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.85 ft below land-surface datum, Aug. 27, 1973; lowest measured, 44.62 ft below land-surface datum, Aug. 1, 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 25, 1982	39.97	JAN 25, 1983	40.70	APR 26, 1983	40.19	JUL 25, 1983	38.93
NOV 22	40.20	FEB 23	40.79	MAY 23	39.68	AUG 22	38.96
DEC 21	40.43	MAR 22	40.60	JUN 21	39.23	SEP 26	39.36

431248071290201. Local number, CVW 3.
LOCATION.--Lat 43°12'48", long 71°29'02", Hydrologic Unit 01070002, at northwest corner of intersection of State Highway 106 and Pembroke Road, and 2.8 mi east of the State House in Concord.
Owner: U.S. Geological Survey.
AQUIFER.--Very fine sand of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 1.25 in, depth 72.7 ft.
DATUM.--Altitude of land-surface datum is 350 ft. Measuring point: Top of casing, 2.30 ft above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 55.56 ft below land-surface datum, Sept. 27, 1973; lowest measured, 59.96 ft below land-surface datum, Jan. 30, 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 25, 1982	56.43	JAN 25, 1983	57.12	APR 26, 1983	57.17	JUL 25, 1983	56.28
NOV 22	56.60	FEB 23	56.96	MAY 23	56.62	AUG 22	56.20
DEC 21	56.93	MAR 22	57.27	JUN 21	56.62	SEP 26	56.35

MERRIMACK COUNTY--Continued

431049071324301. Local number, CVW 4.
LOCATION.--Lat 43°10'49", long 71°32'43", Hydrologic Unit 01070002, north side of Iron Works Road, about 700 ft west of South Street, and 1.8 mi southwest of the State House in Concord.
Owner: U.S. Geological Survey.
AQUIFER.--Lacustrine silty fine sands and clays of Pleistocene age.
WELL CHARACTERISTICS.--Bored, unused water-table well, diameter 1.25 in, depth 40.71 ft.
DATUM.--Altitude of land-surface datum is 285 ft. Measuring point: Top of casing, 3.8 ft above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.93 ft below land-surface datum, Apr. 23, 1969; lowest measured, 19.80 ft below land-surface datum, Dec. 26, 1978.

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 25, 1982	17.64	JAN 25, 1983	18.83	APR 26, 1983	15.30	JUL 25, 1983	16.79
NOV 22	18.33	FEB 23	18.17	MAY 23	15.08	AUG 22	17.63
DEC 21	18.73	MAR 22	16.79	JUN 21	15.37	SEP 26	18.36

432428071390701. Local number, FKW 1.
LOCATION.--Lat 43°24'28", long 71°39'07", Hydrologic Unit 01070002, about 1,500 ft northeast of U.S. Highway 3, north of Holy Cross Convent, and 2.6 mi south of Franklin.
Owner: Holy Cross Convent.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Unused water-table well, diameter 2.5 in, depth 52.3 ft.
DATUM.--Altitude of land-surface datum is 290 ft. Measuring point: Top of casing, 1.80 ft above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.98 ft below land-surface datum, Apr. 24, 1973; lowest measured, 15.75 ft below land-surface datum, Oct. 27, 1966.

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 25, 1982	12.39	JAN 25, 1983	13.49	APR 26, 1983	9.85	JUL 25, 1983	10.49
NOV 22	13.02	FEB 23	13.20	MAY 23	8.89	AUG 22	11.59
DEC 21	13.60	MAR 22	11.45	JUN 21	9.04	SEP 26	12.83

430235071275501. Local number, HTW 5.
LOCATION.--Lat 43°02'35", long 71°27'55", Hydrologic Unit 01070002, within southeastern cloverleaf of intersection of U.S. Highway 3A and Interstate Highway 93, 3.7 mi south of the center of Hooksett.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Crystalline rock of Devonian age.
WELL CHARACTERISTICS.--Drilled, unused bedrock well, diameter 6 in, depth 102.73 ft.
DATUM.--Land-surface datum is 258.93 ft National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--April 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.69 ft below land-surface datum, Apr. 28, 1967; lowest measured, 51.96 ft below land-surface datum, Feb. 10, 1966.

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 25, 1982	49.45	JAN 25, 1983	48.65	APR 26, 1983	45.06	JUL 25, 1983	47.65
NOV 22	49.89	FEB 23	47.64	MAY 23	45.50	AUG 22	48.84
DEC 21	49.53	MAR 22	45.83	JUN 21	46.09	SEP 26	49.98

MERRIMACK COUNTY--Continued

432343071570901. Local number, NLW 1.
LOCATION.--Lat 43°23'43", long 71°57'09", Hydrologic Unit 01070003, at north side of Golf Course Road, about 500 ft east of intersection of State Highway 114 and Golf Course Road, and 2.1 mi southeast of New London.
Owner: W. S. Mariner.
AQUIFER.--Sandy till of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in, depth 21 ft, lined with stone to 21 ft, open end.
DATUM.--Altitude of land-surface datum is 1,020 ft. Measuring point: Top of 2-in casing, 4.00 ft above land-surface datum.
PERIOD OF RECORD.--October 1947 to current year. Prior to January 1956, published in Water Levels and Artesian Pressures in Observation Wells in the United States: Part 1. Northeastern States; Geological Survey Water-Supply Paper Series. January 1956 to November 1972, published in Ground-Water Levels in the United States, Northeastern States; Geological Survey Water-Supply Paper Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.80 ft below land-surface datum, Apr. 2, 1963; lowest measured, 16.90 ft below land-surface datum, Dec. 28, 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 25, 1982	14.73	JAN 25, 1983	13.66	APR 26, 1983	2.43	JUL 25, 1983	10.99
NOV 22	15.34	FEB 23	9.66	MAY 23	5.45	AUG 22	12.85
DEC 21	15.56	MAR 22	2.33	JUN 21	7.16	SEP 26	14.44

431540071452801. Local number, WCW 1.
LOCATION.--Lat 43°15'40", long 71°45'28", Hydrologic Unit 01070003, 44 ft northeast of edge of pavement of northbound lane of Interstate Highway 89, about 2 mi southeast of State Highway 103 overpass in Warner.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Sand and fine gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2 in, depth 42.8 ft.
DATUM.--Altitude of land-surface datum is 424 ft. Measuring point: Top of casing, 3.2 ft above land-surface datum.
PERIOD OF RECORD.--December 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.94 ft below land-surface datum, May 5, 1969; lowest measured, 33.82 ft below land-surface datum, Dec. 17, 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 25, 1982	31.56	JAN 25, 1983	32.02	APR 26, 1983	27.92	JUL 25, 1983	29.21
NOV 22	31.95	FEB 23	31.56	MAY 23	27.04	AUG 22	30.47
DEC 21	32.22	MAR 22	30.32	JUN 21	27.75	SEP 26	31.72

STRAFFORD COUNTY

430721071005001. Local number, LIW 1.
LOCATION.--Lat 43°07'21", long 71°00'50", Hydrologic Unit 01060003, southwest side of Bennett Road about 200 ft from the west corner of the Lee Town Green.
Owner: Mildred Carlson.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 40 in, depth 32.8 ft, lined with stone to 32.8 ft.
DATUM.--Altitude of land-surface datum is 190 ft. Measuring point: Top edge of board across well opening, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--November 1953 to current year. Prior to January 1958, published in New Hampshire Basic-Data Report No. 1, Ground-Water Series. Prior to January 1956, published in Water Levels and Artesian Pressures in Observation Wells in the United States: Part 1. Northeastern States; Geological Survey Water-Supply Paper Series. January 1956 to December 1972, published in Ground-Water Levels in the United States, Northeastern States; Geological Survey Water-Supply Paper Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.66 ft below land-surface datum, Mar. 22, 1983; lowest measured, 32.35 ft below land-surface datum, Nov. 1, 27, 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 25, 1982	31.64	JAN 25, 1983	31.20	APR 26, 1983	29.02	JUL 25, 1983	31.09
NOV 22	31.29	FEB 23	31.13	MAY 23	30.44	AUG 22	31.45
DEC 21	31.56	MAR 22	27.66	JUN 21	30.63	SEP 26	31.76

BENNINGTON COUNTY

424810073160401. Local number, PQW 1.
LOCATION.--Lat 42°48'10", long 73°16'04", Hydrologic Unit 02020003, in front of residence on west side of State Highway 346 and 0.15 mi south of post office at North Pownal.
Owner: Robert Rudd, Sr.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 18 ft, cased with stone to 18 ft, open end.
DATUM.--Altitude of land-surface datum is 515 ft. Measuring point: Top of 0.75-in diameter hole drilled in center of 0.38-in thick steel cover at land-surface datum.
PERIOD OF RECORD.--October 1964 to current year. Prior to October 1977, published as Pownal 1.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.20 ft below land-surface datum, Apr. 22, 1983; lowest measured, 16.59 ft below land-surface datum, Oct. 19, 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 21, 1982	15.27	JAN 23, 1983	13.76	APR 22, 1983	10.20	JUL 23, 1983	13.75
NOV 21	14.09	FEB 19	13.36	MAY 24	12.14	AUG 23	14.52
DEC 21	13.79	MAR 19	13.28	JUN 22	13.31	SEP 23	14.52

CHITTENDEN COUNTY

443646073124901. Local number, MJW 3.
LOCATION.--Lat 44°36'46", long 73°12'49", Hydrologic Unit 02010005, about 600 ft south of manager's residence at Vermont Sandbar Waterfowl Development Area, about 400 ft west of former U.S. Highway 2, and 0.9 mi northwest of Lamoille River bridge at Milton.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in, depth 40 ft, screened 38 to 40 ft.
DATUM.--Altitude of land-surface datum is 160 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.
PERIOD OF RECORD.--November 1956 to current year. Prior to October 1977, published as Milton 3.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.97 ft below land-surface datum, May 29, 1974; lowest measured, 37.82 ft below land-surface datum, Feb. 26, 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 22, 1982	32.36	JAN 25, 1983	35.09	APR 22, 1983	29.94	JUL 22, 1983	24.17
NOV 23	33.49	FEB 24	34.96	MAY 23	23.02	AUG 24	26.08
DEC 23	34.35	MAR 23	33.52	JUN 20	22.65	SEP 22	27.78

ESSEX COUNTY

444731071514701. Local number, BIW 1.
LOCATION.--Lat 44°47'31", long 71°51'47", Hydrologic Unit 01110000, south of road and just west of parking lot for Brighton State Park Beach at Brighton.
Owner: U.S. Geological Survey.
AQUIFER.--Medium and coarse sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 35 ft, screened 33 to 35 ft.
DATUM.--Altitude of land-surface datum is 1,180 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Brighton 1.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.94 ft below land-surface datum, Apr. 25, 1974; lowest measured, 4.94 ft below land-surface datum, July 27, 1975, June 24, 1977, September 23, 1980.

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 23, 1982	4.18	JAN 28, 1983	3.96	APR 23, 1983	3.24	JUL 20, 1983	4.22
NOV 21	3.87	FEB 23	4.25	MAY 26	3.33	AUG 23	4.39
DEC 22	3.93	MAR 23	3.47	JUN 20	3.75	SEP 24	4.49

FRANKLIN COUNTY

445603072422901. Local number, BKW 1.
LOCATION.--Lat 44°56'03", long 72°42'29", Hydrologic Unit 02010007, at southeast end of State Highway 118 bridge on Missisquoi River at East Berkshire.
Owner: U.S. Geological Survey.
AQUIFER.--Fine sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 51 ft, screened 49 to 51 ft.
DATUM.--Altitude of land-surface datum is 425 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Berkshire 1.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.78 ft below land-surface datum, Apr. 25, 1978; lowest measured, 16.43 ft below land-surface datum, Aug. 26, 1975.

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 22, 1982	14.99	JAN 25, 1983	12.51	APR 22, 1983	11.85	JUL 22, 1983	15.33
NOV 23	14.31	FEB 24	12.86	MAY 23	13.02	AUG 24	15.19
DEC 23	13.89	MAR 23	11.19	JUN 20	14.35	SEP 22	15.28

LAMOILLE COUNTY

443405072323501. Local number, MPW 1.
LOCATION.--Lat 44°34'05", long 72°32'35", Hydrologic Unit 02010005, Vermont Highway Department right-of-way off State Highway 15 and 3 mi east of Morrisville.
Owner: U.S. Geological Survey.
AQUIFER.--Silty, fine to medium sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 50 ft, screened 48 to 50 ft.
DATUM.--Altitude of land-surface datum is 660 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year. Prior to October 1977, published as Morristown 1.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.87 ft below land-surface datum, Jan. 27, 1978; lowest measured, 20.40 ft below land-surface datum, Nov. 27, 1978.

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 22, 1982	20.12	JAN 25, 1983	18.26	APR 22, 1983	17.22	JUL 22, 1983	19.19
NOV 23	19.75	FEB 24	18.70	MAY 23	17.29	AUG 24	19.53
DEC 23	19.43	MAR 23	18.24	JUN 20	18.02	SEP 22	19.57

ORANGE COUNTY

435343072151801. Local number, WOW 1.
LOCATION.--Lat 43°53'43", long 72°15'18", Hydrologic Unit 01080103, 60 ft west of salt shed and 1.3 mi south-southeast of West Fairlee Village.
Owner: U.S. Geological Survey.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 54 ft, screened 52 to 54 ft.
DATUM.--Altitude of land-surface datum is 700 ft. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as West Fairlee 1.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.71 ft below land-surface datum, Jan. 26, 1978; lowest measured, 5.48 ft below land-surface datum, Sept. 8, 23, 1980.

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 21, 1982	4.94	JAN 21, 1983	4.39	APR 21, 1983	1.87	JUL 21, 1983	4.43
NOV 22	4.70	FEB 22	3.68	MAY 24	2.34	AUG 22	4.69
DEC 21	4.51	MAR 24	1.03	JUN 21	3.15	SEP 23	5.02

ORLEANS COUNTY

443952072114001. Local number, GLW 1.
LOCATION.--Lat 44°39'52", long 72°11'40", Hydrologic Unit 01110000, at Vermont Highway Department salt shed west of State Highway 16 and 3 mi south of Glover Village.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 82 ft, screened 80 to 82 ft.
DATUM.--Altitude of land-surface datum is 1,200 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Glover 1.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.11 ft below land-surface datum, May 23, 1969; lowest measured, 18.95 ft below land-surface datum, Mar. 28, 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 22, 1982	17.53	JAN 25, 1983	16.81	APR 22, 1983	15.57	JUL 22, 1983	15.84
NOV 23	17.30	FEB 24	17.29	MAY 23	14.53	AUG 24	16.02
DEC 23	17.19	MAR 23	16.76	JUN 20	14.98	SEP 22	16.11

RUTLAND COUNTY

434217073010601. Local number, PFW 8.
LOCATION.--Lat 43°42'17", long 73°01'06", Hydrologic Unit 02010002, 12 ft west of storage building at St. Alphonsus Cemetery at Pittsford.
Owner: U.S. Geological Survey.
AQUIFER.--Medium to fine sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 42 ft, screened 40 to 42 ft.
DATUM.--Altitude of land-surface datum is 490 ft. Measuring point: Top of casing, 2.00 ft above land-surface datum.
REMARKS.--Well pulled Nov. 8, 1968, point replaced, depth changed from 43 ft to 42 ft, old 3-ft point was completely encrusted.
PERIOD OF RECORD.--October 1957 to current year. Prior to October 1977, published as Pittsford 8.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.17 ft below land-surface datum, May 26, 1976; lowest measured, 39.59 ft below land-surface datum, Oct. 18, 1957.

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 21, 1982	36.24	JAN 21, 1983	36.58	APR 21, 1983	36.13	JUL 21, 1983	35.28
NOV 22	36.37	FEB 22	36.50	MAY 24	35.35	AUG 22	35.20
DEC 21	36.44	MAR 24	36.35	JUN 21	35.04	SEP 23	35.41

WASHINGTON COUNTY

441829072413901. Local number, MHW 3.
LOCATION.--Lat 44°18'29", long 72°41'39", Hydrologic Unit 02010003, adjacent to salt shed at Vermont Highway Department garage off U.S. Highway 2 and 1.25 mi west of Middlesex Village.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 50 ft, screened 48 to 50 ft.
DATUM.--Land-surface datum is 453.72 ft National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year. Prior to October 1977, published as Middlesex 3.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.99 ft below land-surface datum, Feb. 24, 1976; lowest measured, 23.74 ft below land-surface datum, Sept. 25, 1978.

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 22, 1982	23.43	JAN 25, 1983	19.35	APR 21, 1983	19.59	JUL 22, 1983	23.59
NOV 23	22.91	FEB 24	22.44	MAY 23	21.49	AUG 24	23.26
DEC 23	22.22	MAR 23	19.90	JUN 20	22.26	SEP 22	23.19

WASHINGTON COUNTY--Continued

441552072341901. Local number, MMW 2.
LOCATION.--Lat 44°15'52", long 72°34'19", Hydrologic Unit 02010003, at southeast corner of garage at Nine Winter Street in Montpelier.
Owner: U.S. Geological Survey.
AQUIFER.--Medium to coarse sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 26 ft, screened 24 to 26 ft.
DATUM.--Altitude of land-surface datum is 520 ft. Measuring point: Top of casing, 0.10 ft above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year. Prior to October 1977, published as Montpelier 2.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.09 ft below land-surface datum, Apr. 24, 1969; lowest measured, 16.84 ft below land-surface datum, Sept. 25, 1978.

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 22, 1982	16.73	JAN 25, 1983	15.90	APR 25, 1983	13.10	JUL 22, 1983	16.46
NOV 23	16.50	FEB 24	16.18	MAY 24	13.46	AUG 24	16.11
DEC 23	16.18	MAR 24	14.89	JUN 20	14.94	SEP 22	16.74

441215072483101. Local number, WAW 2.
LOCATION.--Lat 44°12'15", long 72°48'31", Hydrologic Unit 02010003, at rest area on east side of State Highway 100 and 1.3 mi northeast of Waitsfield Village.
Owner: U.S. Geological Survey.
AQUIFER.--Silty gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drive and wash observation water-level well, diameter 1.25 in, depth 45.5 ft, screened 43.5 to 45.5 ft.
DATUM.--Altitude of land-surface datum is 685 ft. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--June 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.54 ft below land-surface datum, Apr. 11, 1980; lowest measured, 7.62 ft below land-surface datum, July 26, 1979.

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 21, 1982	6.90	JAN 21, 1983	6.54	APR 21, 1983	5.27	JUL 21, 1983	7.34
NOV 24	6.67	FEB 22	7.01	MAY 24	6.04	AUG 22	6.97
DEC 22	6.53	MAR 24	5.92	JUN 21	6.71	SEP 23	7.01

441033072500201. Local number, WAW 3.
LOCATION.--Lat 44°10'33", long 72°50'02", Hydrologic Unit 02010003, town of Waitsfield, northwest of Vermont Highway Department salt shed on State Highway 100 and 0.5 mi southeast of Irasville Village.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drive and wash observation water-level well, diameter 1.25 in, depth 53 ft, screened 51 to 53 ft.
DATUM.--Altitude of land-surface datum is 715 ft. Measuring point: Top of casing, 3.25 ft above land-surface datum.
PERIOD OF RECORD.--June 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.34 ft below land-surface datum, Feb. 24, 1976; lowest measured, 8.00 ft below land-surface datum, Sept. 25, 1978.

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 21, 1982	7.32	JAN 21, 1983	6.40	APR 21, 1983	5.11	JUL 21, 1983	7.51
NOV 22	7.23	FEB 22	6.69	MAY 24	5.76	AUG 22	7.02
DEC 22	6.73	MAR 24	5.52	JUN 21	6.59	SEP 23	7.31

WINDSOR COUNTY

431551072350601. Local number, CKW 1.
LOCATION.--Lat 43°15'51", long 72°35'06", Hydrologic Unit 01080107, at Vermont Highway Department salt shed on Elm Street in Chester.
Owner: U.S. Geological Survey.
AQUIFER.--Boulders, coarse gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 22 ft, screened 20 to 22 ft.
DATUM.--Altitude of land-surface datum is 580 ft. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--November 1966 to current year. Prior to October 1977, published as Chester 1.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.81 ft below land-surface datum, Mar. 28, 1978; lowest measured, 6.31 ft below land-surface datum, Sept. 28, 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 22, 1982	5.83	JAN 21, 1983	5.18	APR 20, 1983	2.79	JUL 21, 1983	6.04
NOV 23	5.45	FEB 22	5.16	MAY 24	4.13	AUG 24	5.89
DEC 22	5.57	MAR 22	2.24	JUN 20	5.28	SEP 20	6.09

433240072242901. Local number, HLW 54.
LOCATION.--Lat 43°32'40", long 72°24'29", Hydrologic Unit 01080104, at northeast corner of fire station in Hartland.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-level well, diameter 1.25 in, depth 51 ft, screened 49 to 51 ft.
DATUM.--Altitude of land-surface datum is 575 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.
PERIOD OF RECORD.--August 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.65 ft below land-surface datum, July 26, 1973; lowest measured, 9.94 ft below land-surface datum, Oct. 22, 1971.

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 21, 1982	9.79	JAN 21, 1983	9.42	APR 21, 1983	7.93	JUL 21, 1983	9.12
NOV 22	9.88	FEB 22	8.76	MAY 24	7.79	AUG 22	9.42
DEC 21	9.52	MAR 24	8.43	JUN 21	8.37	SEP 23	9.60

4351290724833O1. Local number, RJW 1.
LOCATION.--Lat 43°51'29", long 72°48'33", Hydrologic Unit 01080105, adjacent to salt shed at Vermont Highway Department garage 1.3 mi south of Rochester Village.
Owner: U.S. Geological Survey.
AQUIFER.--Sand of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 73 ft, screened 71 to 73 ft.
DATUM.--Altitude of land-surface datum is 800 ft. Measuring point: Top of casing, 4.00 ft above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year. Prior to 1977, published as Rochester 1.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.50 ft below land-surface datum, Mar. 26, 1968; lowest measured, 13.05 ft below land-surface datum, Aug. 25, 1975.

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 21, 1982	12.11	JAN 21, 1983	11.14	APR 21, 1983	6.19	JUL 21, 1983	12.28
NOV 22	11.88	FEB 22	11.09	MAY 24	7.94	AUG 22	11.83
DEC 22	10.66	MAR 24	8.92	JUN 21	10.33	SEP 23	12.37

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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