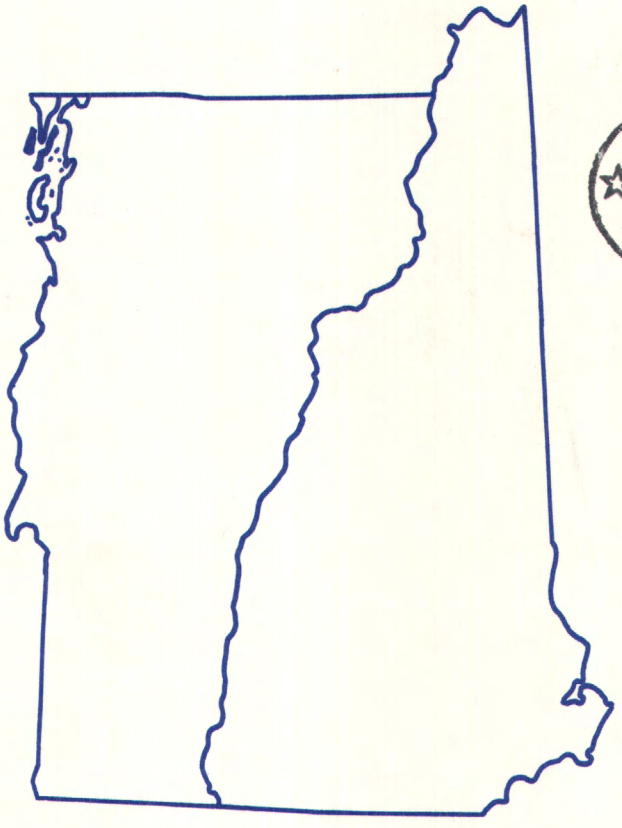
Water Resources Data New Hampshire and Vermont Water Year 1986



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NH-VT-86-1
Prepared in cooperation with the States of New Hampshire and Vermont and with other agencies

CALENDAR FOR WATER YEAR 1986

1985

OCTOBER

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1986

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Water Resources Data New Hampshire and Vermont Water Year 1986

by F.E. Blackey, J.E. Cotton, and J.C. Denner

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NH-VT-86-1
Prepared in cooperation with the States of New Hampshire and Vermont and with other agencies

DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, *Secretary*

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, *Director*

For additional information, write to:

U.S. Geological Survey
Water Resources Division
150 Causeway Street, Suite 1309
Boston, MA 02114-1384

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, and S. C. Shore.

Karen Rickard 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 D. J. Morrissey, Chief, New Hampshire-Vermont Office.

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15. Supplementary Notes

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 1986 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 groundwater levels. This report contains discharge records for 70 gaging stations, stage records for 4 lakes, monthend contents for 23 lakes and reservoirs, water-quality data for 7 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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CONTENTS

ILLUSTRATIONS

CONVERSION FACTORS AND ABBREVIATIONS

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 eqivalents in the station manuscript descriptions.

Multiply inch-pound unit	By	To obtain metric unit
	Length	
inch (in.)	2.54×10^{1}	millimeter (mm)
	2.54×10^{-2}	meters (m)
foot (ft)	3.048×10^{1}	meter (m)
mile (mi)	1.609×10^{0}	kilometer (km)
	Area	
acre	4.047×10^{3}	square meter (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square mile (mi^2)	2.590×10^{0}	square kilometer (km^2)
	Volume	
gallon (gal)	3.785×10^{0}	liter (L)
	3.785×10^{0}	cubic decimeter (dm^3)
	3.785×10^{-3}	cubic meter (m^3)
million gallons (Mgal)	3.785×10^{3}	cubic meter (m^3)
	3.785×10^{-3}	cubic hectometer (hm^3)
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter (dm^3)
	2.832×10^{-1}	cubic meter (m^3)
acre-foot	1.233×10^{3}	cubic meter (m^3)
	1.233×10^{-3}	cubic hectometer (hm^3)
	1.233×10^{-6}	cubic kilometer (km^3)
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second (L/s)
	2.832×10^{1}	cubic decimeter per second (dm^3/s)
	2.832×10^{-2}	cubic meter per second (m^3/s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-2}	cubic decimeter per second (dm^3/s)
	6.309×10^{-5}	cubic meter per second (m^3/s)
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second (dm^3/s)
	4.381×10^{-2}	cubic meter per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagram (Mg) or metric tons

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

NORTH ATLANTIC SLOPE BASINS--Continued
CONNECTICUT RIVER BASIN

HUDSON RIVER BASIN

ST. LAWRENCE RIVER BASIN

NORTH ATLANTIC SLOPE BASINS--Continued
ST. LAWRENCE RIVER BASIN--Continued

Water Resources Data for New Hampshire and Vermont, 1986

By F.E. Blackey, J.E. Cotton, and J.C. Denner

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of New Hampshire and Vermont each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the States. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data, New Hampshire and Vermont."

This report series includes records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 74 gaging stations; stage records for 4 lakes; monthend contents for 23 lakes and reservoirs; water quality at 3 gaging stations and water levels at 30 observation wells. Also included are data for 7 crest-stage partial-record stations. Locations of these sites are shown on figure 1. Additional water data were collected at various sites, not involved in the systematic data-collection program, such as, miscellaneous hydrologic data collected at 83 measuring sites. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Hampshire and Vermont.

This series of annual reports for New Hampshire and Vermont began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for New Hampshire and Vermont were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 1 and 4." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1939 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Bldg. 41, Box 25425, Denver, CO 80225.

Figure 1.--Location of data-collection sites

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NH-VT-85-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Additional information, including current prices, for ordering specific reports may be obtained from the Office Chief at the address given on the back of the title page or by telephone (617) 565-6860.

COOPERATION

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

Vermont: State Department of Water Resources and Environmental Engineering, J. Lash, 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."

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

The States of New Hampshire and Vermont are divided by the Connecticut River,which is the largest river in both States. The Connecticut River and the Merrimack River basins in New Hampshire are highly developed for hydroelectric-power generation, and many of their tributaries are regulated for flood control. All other streams in the two-state area are relatively small, with drainage areas of less than 1,400 square miles, and most have little, if any, regulation. The major unregulated rivers are the Pemigewasset and the Lamprey Rivers in New Hampshire and the White and the Missisquoi Rivers in Vermont.

The absence of any extreme hydrologic event was the most notable characteristic of the 1986 water year in New Hampshire and Vermont. Runoff was in the middle quartile of record at most locations and ranged from 19.32 inches at the Lamprey River near Newmarket (station 01073500) in southeastern New Hampshire to 46.80 inches at the Ellis River (station 01064300) in east-central New Hampshire (fig. 1). Monthly runoff varied geographically throughout the two-State area; runoff was consistently above normal (in the upper quartile of record) only during August and September at most stations. Runoff at the two index stations, Dog River at Northfield Falls, Vermont (station 04287000), and Pemigewasset River at Plymouth, New Hampshire (station 01076500), was 119 percent and 102 percent of normal, respectively. Mean monthly discharges at the index stations for the 1986 water year and the median discharges for the reference period 1951-80 are shown in figure 2.

In southeastern New Hampshire, streamflow in the Lamprey River near Newmarket (station 01073500) was in the normal range for the first 6 months of the water year. Streamflow was below normal (in the lower quartiles of record) in April and May and above normal in July and August. Total discharge was 89 percent of normal for the year. At the Pemigewasset River at Plymouth, New Hampshire (station 01076500), streamflow was in the normal range from October to December. Flow in January, March, August, and September was above normal. May was the only month in which runoff was below normal. Streamflow at two locations in central Vermont--the Dog River at Northfield Falls (station 04287000) and the White River at West Hartford (station 01144000)--was above normal in October and November and during the period June through September. April was the only month in which streamflow was below normal at both locations. Total discharge was above normal for the year at both locations.

In northern Vermont, streamflow in the Missisquoi River near North Troy (station 0429300) was below normal in December, April, and May,

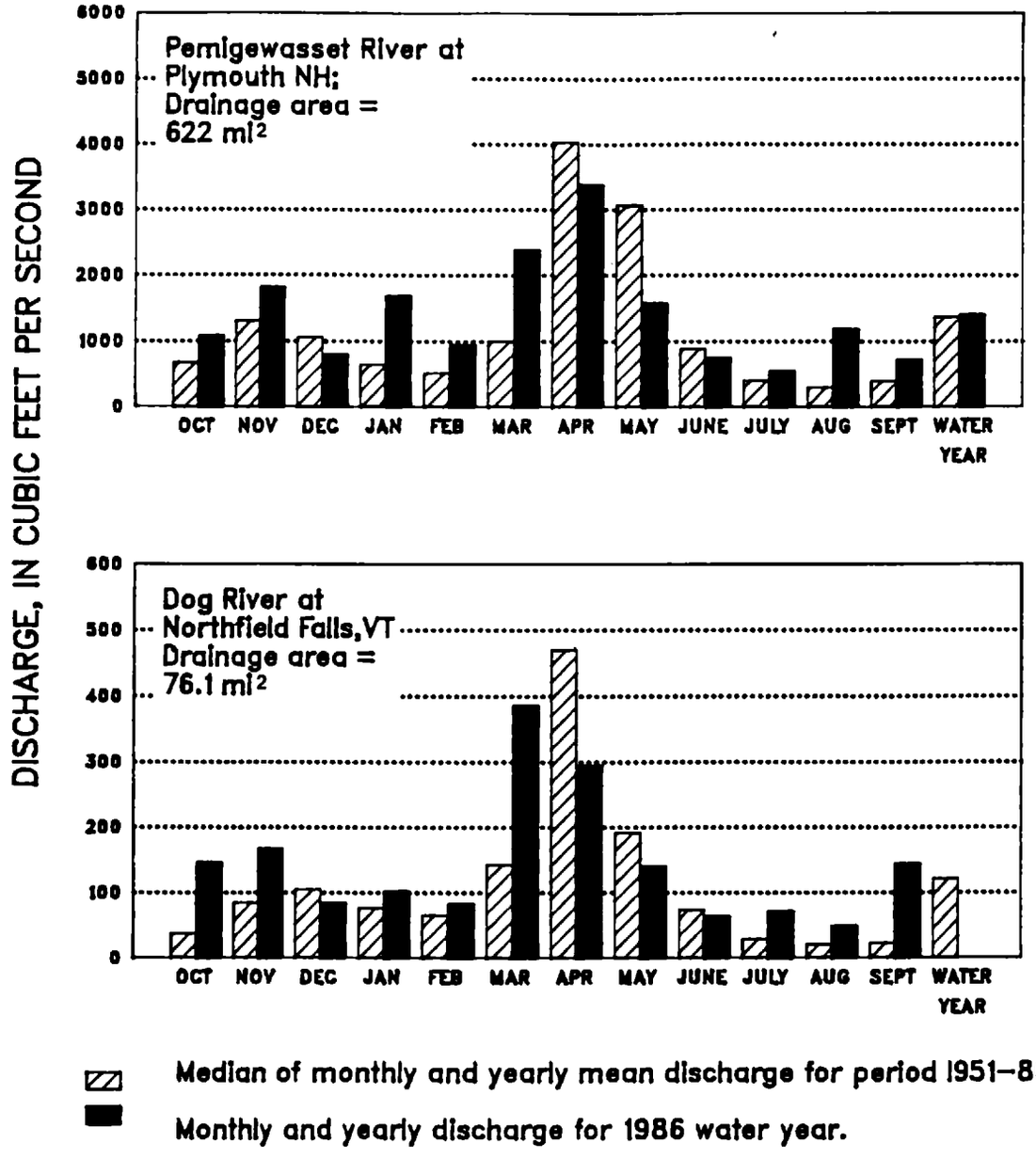

Figure 2.--Comparison of discharge at two long-term index gaging stations during 1986 water year with median discharge for period 1951–80.

and above normal during March, August, and September. Total discharge for the year was 95 percent of normal.

Storage in major reservoirs in the two-State area generally increased in October and declined in the period November through March. Most reservoirs gradually filled for the next 3 months, and at the end of June were over 75 percent full. Reservoir contents remained above 75 percent of capacity at the end of the year. Storage pattern in the following major reservoirs are probably indicative of the seasonal trends that occurred during the the 1986 water year in New Hampshire and Vermont. Usable storage in Lake Francis, in northern New Hampshire, increased from 78 percent of capacity at the beginning of October to 88 percent on November 30 and declined to 31 percent by February 28. By September 30, storage had increased to 77 percent of capacity. The usable capacity of Lake Winnipesaukee increased from 54 percent on October 1 to 88 percent on November 30 and declined slightly to 69 percent on February 28. The effects of spring runoff and regulation returned the Lake to full capacity on June 1; a slight decline occurred during the summer months to 80 percent of capacity on September 30. Harriman Reservoir, in southern Vermont, was 80 percent full at the beginning of the year and declined to 31 percent full on February 28. Seasonal runoff and regulation returned storage in the Lake to 91 percent of capacity on June 1 and reduced it to 72 percent of capacity on September 30.

Ground Water

Although fluctuation occurred from October to April, ground-water levels were in the normal or below-normal ranges at the beginning and end of the period. Recharge that occurred in the first 2 months of the water year caused water levels to remain at or rise to the normal range throughout both States by the end of October and to the above-normal range in theConnecticut River basin by the end of November. Water levels declined during December but were still in the normal range by the end of the month, except in northern Vermont where levels declined to below normal. Recharge during January in Vermont caused water levels to rise above normal in the Green Mountains. Above-normal recharge occurred during February in New Hampshire, but water levels remained in the normal range. Recharge during March throughout both States caused water levels to rise, but levels remained in the normal range, except in the Connecticut River basin where levels rose to above normal. Below-normal recharge in April caused water levels to remain at or return to normal, except in southern New Hampshire and southeastern Vermont where levels declined to below normal.

A seasonal decline in ground-water level in both States began in the second half of the water year, but, by September, levels were either normal or above normal throughout the two-State area. The decline began in the southern parts of New Hampshire in late April and elsewhere during May. At the end of May, water levels generally were normal in Vermont and below normal in New Hampshire. Some recharge during June in central Vermont and in southwestern New Hampshire caused water levels to rise to the above normal range. Water levels remained above normal in central Vermont through the end of the water year. Seasonal declines in water levels continued elsewhere during July. Recharge in the Connecticut River basin during August caused water levels to rise above normal by the end of the month; these levels remained above normal through September. Water levels in eastern and southern New Hampshire generally were in the normal range from June through September.

SPECIAL NETWORKS AND PROGRAMS

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

occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1986 water year that began October 1, 1985, and ended September 30, 1986. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figure 1. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station-Identification Numbers

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

Downstream-Order System

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

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between continuous-record stations and other types of stations; therefore, the station number for a continuous-record station indicates downstream-order position in a list made up of all types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each, such as 01076500, which is shown to the left of the station name, includes the two-digit Part number "01" plus the six-digit downstream-order number "076500"." The Part number designates the major river basin; for example, Part "01" is the North Atlantic Slope Basins.

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude is found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 3.)

A local well-numbering system is also used in this report. The local well number consists of a two-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.

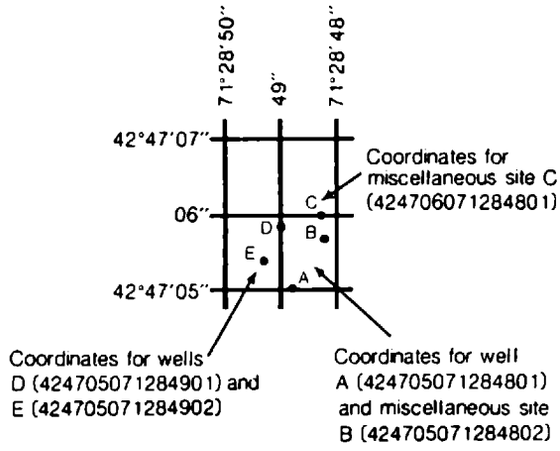

Figure 3.--System for numbering wells and miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

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

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. There were no low-flow or crest-stage partial-record stations this year. Location of all complete-record and for which data are given in this report are shown in figure 1.

Data Collection and Computation

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

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks; in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6; and in U.S. Geological Survey Water-Supply Paper 2175, "Measurement and Computation of Streamflow: Volume 1--Measurement of Stage and Discharge (p. 1-284); Volume 2--Computation of Discharge (p. 285-631)" by S. E. Rantz and others (1982).

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

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

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

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

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

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the

station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

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

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Secondary discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year seems to be below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other

factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

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

Records of Surface-Water Quality

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

Classification of Records

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

A careful distinction needs to be made between "continuing records," as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 1.

Arrangement of Records

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

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources

Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "Publications on Techniques of Water-Resources Investigations" which appears at the end of the introductory text. Detailed information on collecting, treating, and shipping samples may be obtained from the Office of the New England District.

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. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

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

Water Temperature

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

Sediment

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

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand, samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, Colorado, and Doraville, Georgia. Methods used in analyzing sediment samples and computing sediment records are given in Techniques of Water Resources Investigations, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in Techniques of Water Resources Investigations, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

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

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

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

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

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

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

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may be shown with the water-quality data in this report:

Printed Output	Remark
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Records of Ground-Water Levels

Ground-water-level data from a basic network of 30 observation wells are given in this report and are placed in computer storage. These data are intended to provide a sampling and historical record of water-level changes in selected aquifers. Locations of the observation wells are shown in figure 1.

In New Hampshire, short-term networks of observation wells are established during areal assesments of ground-water resources. Water levels measured in these wells are included in the project reports. In Vermont, the Ground Water Management Unit (Vermont Department of Water Resources and Environmental Engineering) monitors other wells in addition to the 15 wells that are in the basic network. Information about the availability of the data in the water-level file may be obtained from the District Chief, New England District (see address on back of title page).

Data Collection and Computation

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

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that is shown in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the municipality in which each well is located.

Water-level records are obtained from direct measurements with a steel tape. The water-level measurements in this report are given in feet with reference to land-surface datum. Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Data Presentation

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

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

AQUIFER.--This entry designates the type of aquifer and the geologic age of the aquifer open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of method of construction, diameter, depth, and casing depth and (or) screened interval.

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

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

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

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed at the end of the introductory text. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

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

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

General inquiries about WATSTORE may be directed to:

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

DEFINITION OF TERMS

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

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 ft^3 or about 326,000 gallons or 1,233 m^3.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

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

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

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

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. 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°. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35° plus or minus 1.0° on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5° plus or minus 0.2° on M-F° medium (nutrient medium for bacterial growth). Their con-

centrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35° plus or minus 1.0° on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

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

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

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

Bottom material: See "Bed material."

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters or liters.

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

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

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

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

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

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 ft^3 passing a given point during 1 second and is equivalent to 7.48 gal/s or 448.8 gal/min or 0.02832 m^3/s.

Cubic-foot-per second 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 ft^3,

approximately 1.9835 acre-ft, about 646,000 gal, or 2,445 m^3.

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

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

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

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

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

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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

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

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

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

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

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

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

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from rela-

tively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

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

Micrograms per gram (UG/G, µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

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

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

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

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

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

Organism is any living entity.

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

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter or liter. Numbers of planktonic organisms can be expressed in these terms.

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

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

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

Particle size is the diameter, in millimeters, of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the 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	0.004 – 0.062	Sedimentation
Sand	0.062 – 2.0	Sedimentation or sieve
Gravel	2.0 – 64.0	Sieve

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

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

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

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

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

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

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

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

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

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

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

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms

(chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

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

Milligrams of oxygen per area or volume per unit time [mg 0/(m^2.time)] for periphyton and macrophytes and [mg 0/(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

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

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

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

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.

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

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

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

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentra-

tion (milligrams per liter) x discharge (cubic foot per second) x 0.0027.

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

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

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

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

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

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

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

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

Substrate is the physical surface upon which an organism lives.

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

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 multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

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

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

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolu-

tion of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

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

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

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

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

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

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

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

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

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

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily

soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1985, is called the "1985 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Forty-eight 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 the Books and Open-File Reports Section, U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Check or money order is payable to the U.S. Geological Survey. Prices, effective December 1987, 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, Chap. D1. 1975. 65 p. $2.50.

1-D2 Guidelines for collection and field analysis of ground-water samples for selected unstable constituents, by W. W. Wood: Book 1, Chap. D2. 1976. 24 p. $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, Chap. D1. 1974. 116 p. $5.00.

2-E1 Application of borehole geophysics to water-resources investigations, by W. S. Keys and L. M. MacCary: Book 2, Chap. E1. 1971. 126 p. $4.75.

3-A1 General field and office procedures for indirect discharge measurements, by M. A. Benson and Tate Dalrymple: Book 3, Chap. A1. 1967. 30 p. $2.00.

3-A2 Measurement of peak discharge by the slope-area method, by Tate Dalrymple and M. A. Benson: Book 3, Chap. A2. 1967. 12 p. $1.75.

3-A3 Measurement of peak discharge at culverts by indirect methods, by G. L. Bodhaine: Book 3, Chap. A3. 1968. 60 p. $5.00.

3-A4 Measurement of peak discharge at width contractions by indirect methods, by H. F. Matthai: Book 3, Chap. A4. 1967. 44 p. $2.25.

3-A5 Measurement of peak discharge at dams by indirect methods, by Harry Hulsing: Book 3, Chap. A5. 1967. 29 p. $2.25.

3-A6 General procedure for gaging streams, by R. W. Carter and Jacob Davidian: Book 3, Chap. A6. 1968. 13 p. $1.75.

3-A7 Stage measurements at gaging stations, by T. J. Buchanan and W. P. Somers: Book 3, Chap. A7. 1968. 28 p. $4.50.

3-A8 Discharge measurements at gaging stations, by T. J. Buchanan and W. P. Somers: Book 3, Chap. A8. 1969. 65 p. $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, Chap. A9. 1982. 44 p. $5.00.

3-A10 Discharge ratings at gaging stations, by E. J. Kennedy: Book 3, Chap. A10. 1985. 59 p. $3.00.

3-A11 Measurement of discharge by moving-boat method, by G. F. Smoot and C. E. Novak: Book 3, Chap. A11. 1969. 22 p. $2.00.

3-A12 Fluorometric procedures for dye tracing, by J. F. Wilson, Jr., E. B. Cobb, and F. A. Kilpatrick: Book 3, Chap. A12. Rev. 1986. 34 p. $2.25

3-A13 Computation of continuous records of streamflow, by E. J. Kennedy: Book 3, Chap. A13. 1983. $4.50.

3-A14 The use of flumes in measuring discharge, by F. A. Kilpatrick and V. R. Schneider: Book 3, Chap. A14. 1983. 46 p. $4.50.

3-A15 Computation of water-surface profiles in open channels, by Jacob Davidian: Book 3, Chap. A15. 1984. 48 p. $2.50.

3-A16 Measurements of discharge using tracers, by F. A. Kilpatrick and E. D. Cobb: Book 3, Chap. A16. 1986. 52 p. $2.50.

3-A17 Acoustic velocity meter systems, by Antonius Laenen: Book 3, Chap. A17. 1985. 38 p. $1.75.

3-B1 Aquifer-test design, observation, and data analysis, by R.W. Stallman: Book 3, Chap. B1. 1971. 26 p. $3.50.

3-B2 Introduction to ground-water hydraulics, a programed text for self-instruction, by G. D. Bennett: Book 3, Chap. B2. 1976. 172 p. $7.00.

3-B3 Type curves for selected problems of flow to wells in confined aquifers, by J. E. Reed: Book 3, Chap. B3. 1980. 106 p. $6.00.

3-B5 Definition of Boundary and Initial Conditions in the Analysis of Saturated Ground-Water Flow Systems-An Introduction, by O. L. Franke, T. E. Reilly, and G. D. Bennett: Book 3, Chap. B5. 1987. 15 p.

3-B6 The Principle of Superposition and its Application in Ground-Water Hydraulics, by T. E. Rielly, O. L. Franke, and G. D. Bennett: Book 3, Chap. B6. 1987. 28 p.

3-C1 Fluvial sediment concepts, by H. P. Guy: Book 3, Chap. C1. 1970. 55 p. $3.75.

3-C2 Field methods for measurement of fluvial sediment, by H. P. Guy and V. W. Norman: Book 3, Chap. C2. 1970. 59 p. $5.50.

3-C3 Computation of fluvial-sediment discharge, by George Porterfield: Book 3, Chap. C3. 1972. 66 p. $3.25.

4-A1 Some statistical tools in hydrology, by H. C. Riggs: Book 4, Chap. A1. 1968. 39 p. $2.50.

4-A2 Frequency curves, by H. C. Riggs: Book 4, Chap. A2. 1968. 15 p. $2.00.

4-B1 Low-flow investigations, by H. C. Riggs: Book 4, Chap. B1. 1972. 18 p. $3.50.

4-B2 Storage analyses for water supply, by H. C. Riggs and C. H. Hardison: Book 4, Chap. B2. 1973. 20 p. $3.25.

4-B3 Regional analyses of streamflow characteristics, by H. C. Riggs: Book 4, Chap. B3. 1973. 15 p. $3.50.

4-D1 Computation of rate and volume of stream depletion by wells, by C. T. Jenkins: Book 4, Chap. D1. 1970. 17 p. $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, Chap. A1. 1979. 626 p. $11.00.

5-A2 Determination of minor elements in water by emission spectroscopy, by P. R. Barnett and E. C. Mallory, Jr.: Book 5, Chap. A2. 1971. 31 p. $2.75.

5-A3 Methods for analysis of organic substances in water, by D. F. Goerlitz and Eugene Brown: Book 5, Chap. A3. 1972. 40 p. $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, Chap. A4. 1977. 332 p. $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, Chap. A5. 1977. 95 p. $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, Chap. A6. 1982. 181 p. $6.50.

5-C1 Laboratory theory and methods for sediment analysis, by H. P. Guy: Book 5, Chap. C1. 1969. 58 p. $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, Chap. C1. 1976. 116 p. $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, Chap. C2. 1978. 90 p. $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, Chap. C3. 1981. 110 p. $7.50.

8-A1 Methods of measuring water levels in deep wells, by M. S. Garber and F. C. Koopman: Book 8, Chap. A1. 1968. 23 p. $2.00.

8-A2 Installation and service manual for U.S. Geological Survey manometers, by J. D. Craig: Book 8, Chap. A2. 1983. 57 p. $6.00.

8-B2 Calibration and maintenance of vertical-axis type current meters, by G. F. Smoot and C. E. Novak: Book 8, Chap. B2. 1968. 15 p. $1.75.

01052500 DIAMOND RIVER NEAR WENTWORTH LOCATION, N. H.

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. Elevation of gage is 1,275 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 4 to Jan. 20, Jan. 28 to Mar. 13, June 9-24, and July 15-29. Records good except for periods of ice effect, Dec. 4 to Jan. 20, Jan. 28 to Feb. 5, Feb. 8 to Mar. 13, and periods of once-a-day telemark readings, June 9-24 and July 15-29, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--45 years, 349 ft^3/s, 31.18 in/yr.

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 greater than base discharge 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)
Jan. 27	2300	*4,790	*8.27	Mar. 31	1700	4,690	8.20

Minimum discharge, 40 ft^3/s July 12, gage height, 1.37 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	199	107	180	88	490	105	3050	383	270	96	166	118
2	165	105	309	87	425	100	2990	388	504	78	519	104
3	157	102	318	84	355	98	2210	353	277	76	346	102
4	135	98	185	83	300	96	1460	303	205	72	219	102
5	143	144	170	82	260	95	1130	313	172	69	141	97
6	321	754	160	81	230	93	942	549	158	85	111	185
7	240	1030	155	78	210	91	725	652	136	76	113	128
8	178	627	150	77	195	90	625	751	160	60	404	98
9	150	425	145	76	190	89	591	544	302	50	1060	89
10	147	395	140	75	180	88	677	397	170	43	588	80
11	220	498	135	73	170	105	553	328	130	40	339	222
12	198	381	130	72	165	150	486	290	180	40	247	718
13	186	694	125	71	160	190	452	257	135	44	174	384
14	333	1040	125	70	155	265	549	226	115	73	138	259
15	352	607	120	69	150	465	865	203	110	250	115	188
16	721	388	120	68	145	743	1100	191	100	145	106	262
17	413	383	115	67	135	591	1280	211	160	105	107	326
18	285	379	115	66	135	480	1300	220	210	86	169	218
19	264	362	110	66	130	461	1180	195	130	75	292	176
20	266	635	110	190	125	1510	1040	414	100	68	162	161
21	215	699	105	1160	120	1870	1100	348	95	63	116	180
22	189	439	105	1080	120	1090	1150	418	70	59	97	165
23	173	354	105	676	115	618	815	421	65	55	87	222
24	160	309	105	700	115	387	644	460	85	52	172	688
25	158	259	100	913	110	317	726	479	90	49	643	462
26	163	206	98	1180	110	281	903	331	83	47	427	339
27	147	233	97	3010	105	783	851	259	93	90	301	257
28	135	211	96	1800	105	1130	682	223	375	115	421	212
29	122	194	94	1100	---	1210	555	213	208	145	245	195
30	114	189	92	820	---	2220	466	231	127	686	176	679
31	112	---	90	640	---	4120	---	197	---	302	141	---
TOTAL	6761	12247	4204	14702	5205	19931	31097	10748	5015	3294	8342	7416
MEAN	218	408	136	474	186	643	1037	347	167	106	269	247
MAX	721	1040	318	3010	490	4120	3050	751	504	686	1060	718
MIN	112	98	90	66	105	88	452	191	65	40	87	80
CFSM	1.43	2.69	.89	3.12	1.22	4.23	6.82	2.28	1.10	.70	1.77	1.63
IN.	1.65	3.00	1.03	3.60	1.27	4.88	7.61	2.63	1.23	.81	2.04	1.81

CAL YR 1985 TOTAL 122056 MEAN 334 MAX 3260 MIN 26 CFSM 2.20 IN. 29.87
WTR YR 1986 TOTAL 128962 MEAN 353 MAX 4120 MIN 40 CFSM 2.32 IN. 31.56

01053500 ANDROSCOGGIN RIVER AT ERROL, N. H.

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 above National Geodetic Vertical Datum of 1929. Prior to Dec. 8, 1943, nonrecording gage at Errol Dam at datum 5.0 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. 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.--81 years, 1,904 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft^3/s May 22, 1969, gage height, 9.40 ft; minimum daily, leakage only at various times when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,310 ft^3/s Apr. 3, gage height, 4.94 ft; minimum daily, 519 ft^3/s Apr. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1640	1720	1550	2080	1780	2380	2800	1580	1990	1800	1830	1730
2	1630	1720	1620	2150	1780	2290	4640	1570	1900	1800	1820	1750
3	1610	1720	1650	2140	1760	2410	5240	1560	1920	1790	1550	1740
4	1610	1720	1660	2130	1740	2390	4880	1550	1920	1790	1550	1740
5	1560	1720	1720	2110	2150	2730	3970	1550	1830	1790	1750	1800
6	1490	1700	1760	2120	2240	3370	3640	1490	1830	1780	1720	1810
7	1590	1290	1790	2140	2320	3080	2680	1440	1830	1780	1700	1810
8	1620	1050	1780	2240	2180	2470	2130	1580	1830	1810	1690	1810
9	1620	1150	1780	2310	2150	2460	2100	1690	1830	1840	1720	1690
10	1610	1220	1790	2130	2100	2480	1750	1700	1810	1850	1700	1810
11	1650	1230	1790	2080	2250	2490	1670	1650	1760	1860	1510	1800
12	1670	1260	1890	2030	2310	2490	1470	1570	1770	1840	1570	1810
13	1650	1240	2020	1970	2380	2490	1490	1590	1860	1820	1660	1820
14	1590	1210	2020	2250	2370	2500	1600	1640	1880	1770	1720	1810
15	1510	1280	2050	2270	2260	2530	1590	1680	1880	1750	1760	1800
16	1320	1290	2070	2270	1850	2540	1600	1700	1880	1810	1760	1750
17	1410	1310	2100	2210	2620	2260	1600	1720	1880	1820	1760	1770
18	1520	1380	2090	2060	2340	2000	1420	1720	1870	1840	1780	1770
19	1520	1410	2110	1880	2470	2050	1430	1720	1870	1850	1790	1770
20	1500	1420	2120	2030	2630	1440	1460	1680	1850	1840	1600	1730
21	1580	1420	2140	2130	2310	1480	1610	1690	1880	1840	1900	1700
22	1590	1410	2150	2190	2180	1480	1770	1920	1870	1850	1800	1680
23	1620	1410	2140	2140	2350	1500	1790	2160	1870	1840	1800	1690
24	1660	1430	2140	2130	2600	1640	1570	2400	1870	1860	1800	1700
25	1660	1460	2150	2100	2390	1740	1610	2510	1870	1840	1800	1710
26	1630	1560	2180	2110	2390	1780	1630	2550	1880	1840	1830	1720
27	1650	1610	2190	1110	1910	1610	1430	2550	1910	1720	1840	1720
28	1690	1620	2180	717	2740	1430	1350	2540	1920	1790	1700	1720
29	1700	1600	2170	1740	---	1130	1610	2470	1910	1820	1520	1720
30	1710	1560	2150	1920	---	1050	1590	2460	1860	1830	1690	1740
31	1710	---	2140	1650	---	1630	---	2340	---	1840	1680	---
TOTAL	49520	43120	61090	62537	62550	65320	65120	57970	56030	56300	53300	52620
MEAN	1597	1437	1971	2017	2234	2107	2171	1870	1868	1816	1719	1754
MAX	1710	1720	2190	2310	2740	3370	5240	2550	1990	1860	1900	1820
MIN	1320	1050	1550	717	1740	1050	1350	1440	1760	1720	1510	1680

CAL YR 1985 TOTAL 559292 MEAN 1532 MAX 4010 MIN 519
WTR YR 1986 TOTAL 685477 MEAN 1878 MAX 5240 MIN 717

01054000 ANDROSCOGGIN RIVER NEAR GORHAM, N. H.

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 mi².

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 above 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.--No estimated daily discharges. Records excellent. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes, combined usable capacity, 28,100,000,000 ft³, 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.--73 years, 2,467 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 20,000 ft³/s June 18, 1917, Apr. 30, 1923; minimum daily, 795 ft³/s Mar. 15, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,060 ft³/s Apr. 3, gage height, 7.14 ft; minimum daily, 1,770 ft³/s Oct. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1950	1920	1920	2430	2640	2780	7050	2170	2650	2020	2170	1890
2	1960	1920	2120	2320	2630	2540	8150	2180	2580	1960	2510	1950
3	1920	1930	2300	2400	2550	2500	8740	2130	2420	1970	2400	1970
4	1910	1920	1880	2330	2350	2570	7790	2060	2330	2070	1890	1890
5	1920	2020	2210	2310	2310	2580	6210	2060	2210	1960	1940	1940
6	1980	2900	2220	2340	2610	2990	5420	2180	2110	1940	1950	2220
7	1930	3330	2130	2270	2710	3260	4610	2260	2100	1960	1930	2230
8	1890	2480	2170	2280	2660	2910	3670	2460	2100	1930	2070	2080
9	1940	1970	2140	2400	2510	2600	3490	2620	2180	1960	2580	2000
10	1900	1820	2130	2600	2540	2590	3330	2400	2090	1950	2610	1880
11	1860	2010	2130	2400	2400	2630	2770	2280	2090	1970	2240	2010
12	1920	1940	2160	2310	2530	2680	2710	2150	2090	1970	1940	2120
13	1900	1990	2250	2300	2620	2700	2510	2020	2060	1990	1910	2130
14	1950	2280	2280	2190	2660	2760	2560	1980	2170	2060	1910	2060
15	1980	2270	2200	2430	2660	2980	2700	2040	2130	2110	1950	2020
16	2370	2010	2400	2460	2500	3170	2750	2040	2100	2010	1970	2170
17	1980	1940	2380	2420	2260	3250	2800	2080	2340	1970	2000	2260
18	1890	1940	2340	2440	2720	2810	2740	2110	2290	1990	2020	2150
19	2010	2050	2210	2330	2600	2860	2470	2090	2140	1980	2000	2070
20	1990	2180	2410	2230	2680	3510	2400	2170	2080	1990	1980	2060
21	1890	2380	2370	2480	2810	3230	2470	2230	2080	1950	1840	2030
22	2000	2140	2380	2720	2520	2860	2890	2410	2070	1930	1990	2060
23	2010	2030	2410	2680	2420	2540	3000	2790	2080	1940	1940	2030
24	1900	1980	2420	2530	2590	2420	2660	3120	2090	1930	2120	2280
25	1940	1920	2430	2440	2760	2400	2350	3690	2090	1950	2200	2240
26	1910	1890	2360	2550	2600	2480	2890	3290	2070	1970	2190	2110
27	1860	2000	2370	6060	2580	3240	2960	3190	2090	2100	2220	2080
28	1870	2030	2430	5610	2170	3930	2360	2990	2200	1990	2640	2050
29	1920	2020	2370	3550	---	4020	2260	2900	2210	2030	2100	2050
30	1770	1970	2420	3680	---	5040	2330	2850	2260	2320	1900	2140
31	1890	---	2320	3270	---	7560	---	2830	---	2360	1940	---
TOTAL	60110	63180	70260	84760	71590	96390	111040	75770	65500	62230	65050	62170
MEAN	1939	2106	2266	2734	2557	3109	3701	2444	2183	2007	2098	2072
MAX	2370	3330	2430	6060	2810	7560	8740	3690	2650	2360	2640	2280
MIN	1770	1820	1880	2190	2170	2400	2260	1980	2060	1930	1840	1880

CAL YR 1985 TOTAL 741790 MEAN 2032 MAX 6680 MIN 1510
WTR YR 1986 TOTAL 888050 MEAN 2433 MAX 8740 MIN 1770

01064300 ELLIS RIVER NEAR JACKSON, N. H.

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. Elevation of gage is 1,500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 14, 1969, at site 0.3 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 4 to Mar. 22, Mar. 27, 28. Records good except for periods of estimated daily discharges, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--22 years (water years 1965-83), 34.2 ft^3/s, 42.61 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 greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 27	0730	a*1,460	a*5.29	Apr. 26	0800	592	3.53
May 22	0115	473	3.20				

a From rating curve extended above 390 ft^3/s.

Minimum daily, 6.0 ft^3/s Mar. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	17	22	9.8	26	7.4	120	66	35	17	33	28
2	27	17	69	9.7	23	7.3	158	67	38	19	58	27
3	24	17	32	9.6	20	7.2	86	42	30	20	36	26
4	22	16	28	9.5	18	7.1	56	34	27	24	28	25
5	77	42	25	9.4	16	6.9	43	34	26	20	23	26
6	66	156	23	9.4	15	6.8	38	41	24	19	20	33
7	39	93	21	9.3	13	6.4	35	78	23	18	25	25
8	31	53	20	9.2	12	6.1	33	88	24	16	50	22
9	28	41	19	8.9	11	6.0	34	52	23	16	43	20
10	26	42	18	8.7	10	6.0	34	41	20	15	39	19
11	24	36	17	8.4	9.9	6.1	30	39	27	14	36	19
12	22	39	16	8.2	9.8	6.5	26	36	30	14	28	18
13	32	62	16	8.0	9.7	6.9	25	32	34	17	24	18
14	33	50	15	7.9	9.5	7.4	27	31	32	27	22	17
15	75	38	15	7.7	9.2	35	34	32	26	40	21	16
16	75	36	14	7.4	9.0	19	45	32	24	23	21	25
17	43	41	14	7.7	8.9	14	53	38	56	19	34	22
18	35	35	13	8.6	8.8	14	55	40	32	17	54	20
19	34	52	13	11	8.7	16	51	39	26	16	39	18
20	32	87	12	80	8.7	65	53	37	23	15	31	18
21	29	58	12	40	8.6	33	86	103	20	15	28	24
22	26	41	12	22	8.6	25	147	223	18	14	25	20
23	24	36	11	19	8.5	21	66	95	20	13	23	27
24	23	32	11	25	8.4	16	45	109	20	12	132	39
25	29	27	11	110	8.3	20	108	119	26	12	141	26
26	25	36	11	300	8.1	27	338	64	21	12	70	22
27	22	33	11	803	7.8	35	241	49	20	15	70	20
28	20	25	11	99	7.5	54	120	44	21	14	59	19
29	18	24	10	51	---	97	109	37	19	38	43	20
30	18	22	10	39	---	244	88	35	19	119	36	49
31	18	---	10	30	---	197	---	32	---	45	32	---
TOTAL	1028	1304	542	1786.4	322.0	1026.1	2384	1809	784	695	1324	708
MEAN	33.2	43.5	17.5	57.6	11.5	33.1	79.5	58.4	26.1	22.4	42.7	23.6
MAX	77	156	69	803	26	244	338	223	56	119	141	49
MIN	18	16	10	7.4	7.5	6.0	25	31	18	12	20	16
CFSM	3.05	3.99	1.61	5.28	1.06	3.04	7.29	5.36	2.39	2.06	3.92	2.17
IN.	3.51	4.45	1.85	6.10	1.10	3.50	8.14	6.17	2.68	2.37	4.52	2.42

CAL YR 1985 TOTAL 10778.1 MEAN 29.5 MAX 250 MIN 6.8 CFSM 2.71 IN. 36.78
WTR YR 1986 TOTAL 13712.5 MEAN 37.6 MAX 803 MIN 6.0 CFSM 3.45 IN. 46.80

01064400 LUCY BROOK NEAR NORTH CONWAY, N. H.

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. Elevation of gage is 710 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 8 to Mar. 22, May 19 to June 16. Records good except for estimated daily discharges, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--22 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 from floodmarks; minimum discharge, 0.32 ft^3/s Sept. 2, 3, 29, 30, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge 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)
Jan. 27	0845	*774	a*7.85	No other peak greater than base discharge.			

a From rating curve extended above 140 ft^3/s.

Minimum discharge, 0.76 ft^3/s July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	4.3	8.3	3.4	17	3.7	50	11	6.3	2.8	12	3.9
2	4.5	4.3	24	3.3	15	3.6	52	10	6.6	3.4	51	3.6
3	4.2	4.3	17	3.2	14	3.6	39	9.0	6.2	3.9	16	3.4
4	4.1	4.3	13	3.1	12	3.5	28	8.5	5.9	3.5	11	3.4
5	9.1	7.1	12	3.0	11	3.5	24	8.1	5.7	2.6	7.7	3.4
6	16	51	11	3.0	10	3.5	20	8.1	5.5	2.6	6.1	4.7
7	11	40	10	2.9	9.4	3.4	21	8.1	5.4	2.5	7.8	3.4
8	8.3	21	9.2	2.9	8.8	3.4	23	8.7	5.3	2.1	29	3.3
9	6.9	16	8.7	2.8	8.1	3.3	21	8.6	5.2	1.9	16	3.0
10	6.1	15	8.3	2.8	7.4	3.3	20	7.9	4.9	1.8	11	2.7
11	5.4	13	7.9	2.8	7.0	3.2	19	7.5	5.2	1.6	8.1	2.6
12	5.0	12	7.5	2.7	6.8	3.2	16	7.1	5.8	1.8	6.7	3.4
13	5.7	13	7.1	2.7	6.5	3.1	15	6.7	6.3	2.6	5.9	3.6
14	6.5	14	6.8	2.7	6.3	3.4	15	6.0	5.9	3.5	5.5	2.5
15	17	17	6.5	2.6	6.0	10	14	5.9	5.5	3.1	5.1	2.3
16	28	13	6.2	2.8	5.8	7.2	14	5.4	7.3	1.9	4.9	5.0
17	15	14	5.9	3.2	5.6	6.8	15	5.4	7.3	1.6	4.6	3.2
18	12	17	5.6	3.7	5.4	6.6	15	6.6	6.1	1.6	5.9	3.0
19	9.9	17	5.3	4.5	4.8	13	14	6.6	5.4	1.6	6.1	2.8
20	8.6	22	5.1	25	4.5	35	12	6.4	4.9	1.7	4.6	2.6
21	7.6	21	4.9	14	4.5	25	13	13	4.8	1.2	3.9	3.8
22	6.8	16	4.7	9.5	4.4	15	20	20	4.4	1.0	3.6	3.2
23	6.7	14	4.5	8.0	4.4	12	15	11	4.0	1.0	3.4	3.2
24	6.1	13	4.4	8.8	4.3	11	12	13	4.0	.90	9.2	3.6
25	5.7	12	4.2	10	4.1	10	14	15	3.6	.90	6.1	3.2
26	5.5	10	4.1	45	4.0	11	30	10	3.5	1.2	5.1	2.8
27	5.2	10	3.9	410	3.9	33	24	8.0	3.2	3.6	7.0	2.8
28	5.2	9.7	3.8	65	3.8	40	17	7.4	3.2	2.1	6.3	2.5
29	5.2	9.2	3.7	27	---	45	14	6.6	3.0	4.5	5.1	2.5
30	4.8	9.0	3.6	22	---	79	12	6.2	3.0	35	4.6	3.0
31	4.8	---	3.5	19	---	76	---	6.0	---	16	4.3	---
TOTAL	252.3	443.2	230.7	721.4	204.8	483.3	618	267.8	153.4	115.50	283.6	96.4
MEAN	8.14	14.8	7.44	23.3	7.31	15.6	20.6	8.64	5.11	3.73	9.15	3.21
MAX	28	51	24	410	17	79	52	20	7.3	35	51	5.0
MIN	4.1	4.3	3.5	2.6	3.8	3.1	12	5.4	3.0	.90	3.4	2.3
CFSM	1.74	3.16	1.59	4.98	1.56	3.33	4.40	1.85	1.09	.80	1.96	.69
IN.	2.01	3.52	1.83	5.73	1.63	3.84	4.91	2.13	1.22	.92	2.25	.77

CAL YR 1985 TOTAL 2790.62 MEAN 7.65 MAX 52 MIN .90 CFSM 1.63 IN. 22.18
WTR YR 1986 TOTAL 3870.40 MEAN 10.6 MAX 410 MIN .90 CFSM 2.26 IN. 30.76

01064500 SACO RIVER NEAR CONWAY, N. H.

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 above 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.--Estimated daily discharges: Oct. 1-15, Oct. 18 to Nov. 7, Dec. 8 to Jan. 19, and Jan. 19 to Mar. 25. Records good except for periods of ice effect, Dec. 8 to Jan. 19 and Jan. 27 to Mar. 25, periods of no gage-height record, Oct. 18 to Nov. 7 and Mar. 11-25, and periods of doubtful gage-height record, Oct. 1-15, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--63 years (water years 1904-09, 1930-86), 935 ft^3/s, 32.98 in/yr.

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 greater than base discharge 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. 28	unknown	*29,500	*13.73	No other peak greater than base discharge.			

Minimum daily discharge, 182 ft^3/s Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	540	350	633	235	1450	315	5310	1610	810	348	810	453
2	480	340	1540	225	1300	310	5410	1470	1320	349	1790	420
3	430	335	1610	225	1150	300	4520	1240	1060	432	1170	398
4	400	330	1050	220	1050	290	3360	1090	856	483	818	392
5	470	800	969	215	975	285	2700	1010	748	437	633	394
6	1620	1500	830	215	900	275	2320	996	719	409	527	515
7	830	2600	742	210	830	270	2150	1020	690	386	577	482
8	620	2200	660	205	780	265	2200	1340	703	351	1860	401
9	550	1530	610	205	730	260	2050	1190	666	322	1400	362
10	500	1330	570	205	695	260	2000	985	573	298	1130	339
11	470	1230	540	200	650	255	1810	892	586	294	870	327
12	440	1070	500	200	615	260	1620	834	802	298	751	338
13	420	1180	475	195	580	265	1490	775	1040	354	617	404
14	540	1220	445	195	550	290	1470	725	951	382	539	340
15	730	1470	420	195	530	1000	1540	687	749	529	487	308
16	2590	1160	400	195	500	2000	1630	662	633	407	461	398
17	1330	1150	375	190	480	1250	1760	678	822	346	448	512
18	1280	1250	360	190	460	780	1810	665	768	337	479	415
19	890	1160	345	185	445	890	1730	623	619	277	825	375
20	825	1480	330	856	430	3800	1610	592	559	269	590	345
21	785	1720	320	2070	415	1950	1690	799	531	261	477	387
22	730	1270	310	1280	395	1450	2650	1990	483	272	426	439
23	680	1120	300	920	385	1250	2140	1540	446	280	387	394
24	610	998	290	596	375	1100	1600	2170	450	299	983	488
25	540	906	285	523	360	995	1830	3330	433	199	1200	455
26	470	794	275	989	345	914	3900	1910	427	206	973	389
27	460	787	270	16500	335	1920	3600	1400	400	309	772	357
28	440	753	260	20000	325	3140	2710	1170	409	354	951	332
29	405	705	255	6200	---	3140	2200	990	389	479	689	321
30	380	657	245	2800	---	5530	1940	931	362	1770	572	448
31	360	---	240	1850	---	7310	---	823	---	1260	504	---
TOTAL	21815	33395	16454	58489	18035	42319	72750	36137	20004	12997	24716	11928
MEAN	704	1113	531	1887	644	1365	2425	1166	667	419	797	398
MAX	2590	2600	1610	20000	1450	7310	5410	3330	1320	1770	1860	515
MIN	360	330	240	185	325	255	1470	592	362	199	387	308
CFSM	1.83	2.89	1.38	4.90	1.67	3.55	6.30	3.03	1.73	1.09	2.07	1.03
IN.	2.11	3.23	1.59	5.65	1.74	4.09	7.03	3.49	1.93	1.26	2.39	1.15

CAL YR 1985 TOTAL 257450 MEAN 705 MAX 4680 MIN 100 CFSM 1.83 IN. 24.88
WTR YR 1986 TOTAL 369039 MEAN 1011 MAX 20000 MIN 185 CFSM 2.63 IN. 35.66

01065000 OSSIPEE RIVER AT EFFINGHAM FALLS, N. H.

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. Elevation of gage is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 29 to Feb. 14, Mar. 25-27, Aug. 8-11. Records good except for estimated daily discharges, which are fair. 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.--44 years, 691 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, 3,230 ft^3/s Apr. 2, gage height, 7.48 ft; minimum, 176 ft^3/s Sept. 26; minimum daily, 179 ft^3/s Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	431	341	691	245	2300	459	3150	1050	958	229	1460	229
2	429	228	691	247	1400	444	3220	819	945	236	1390	229
3	424	229	705	258	1150	430	3140	695	940	237	1390	229
4	262	325	710	271	1020	416	2930	692	653	238	1330	230
5	187	445	711	280	950	403	2670	689	482	229	1250	396
6	189	565	736	289	900	395	2410	685	484	229	987	474
7	341	685	739	288	860	357	2200	682	487	231	810	472
8	416	874	710	280	820	306	2080	679	491	232	1350	469
9	415	1050	689	280	790	314	2010	547	495	232	1500	580
10	410	1030	681	279	750	321	1920	453	490	229	1600	713
11	406	1010	672	276	740	330	1690	455	487	227	1750	695
12	403	991	667	273	700	328	1530	444	489	228	1850	608
13	403	905	528	272	640	341	1450	437	497	229	1540	564
14	401	858	441	268	550	361	1360	428	511	230	1140	554
15	402	864	439	261	546	424	1270	428	516	231	774	544
16	410	881	438	255	536	510	1190	427	514	230	535	539
17	416	893	438	254	527	609	1110	301	519	230	533	534
18	421	901	436	254	518	691	904	213	511	229	532	528
19	423	909	435	257	512	1030	736	214	508	227	529	522
20	423	916	434	279	504	1600	734	210	501	227	416	515
21	423	920	432	341	460	1770	727	211	494	226	276	510
22	427	920	430	431	455	1760	583	222	488	225	243	578
23	430	915	429	493	455	1640	467	363	483	238	225	634
24	430	910	428	512	450	1480	469	953	479	246	227	620
25	426	903	426	510	448	1350	604	1420	477	231	228	529
26	423	892	423	553	437	1250	699	1520	473	233	228	290
27	423	787	421	1310	420	1500	716	1530	315	235	373	179
28	422	706	418	2560	450	2070	948	1320	229	238	476	180
29	525	703	416	2850	---	2240	1070	1150	227	258	318	180
30	521	700	320	2800	---	2490	1060	1080	227	893	228	180
31	515	---	233	2750	---	2830	---	1010	---	1500	229	---
TOTAL	12577	23256	16367	20476	20288	30449	45047	21327	15370	9133	25717	13504
MEAN	406	775	528	661	725	982	1502	688	512	295	830	450
MAX	525	1050	739	2850	2300	2830	3220	1530	958	1500	1850	713
MIN	187	228	233	245	420	306	467	210	227	225	225	179

CAL YR 1985 TOTAL 168309 MEAN 461 MAX 1700 MIN 84
WTR YR 1986 TOTAL 253511 MEAN 695 MAX 3220 MIN 179

01072100 SALMON FALLS RIVER AT MILTON, N. H.

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. Elevation of gage is 405 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 21 to Mar. 13. Records fair except for estimated daily discharges, which are poor. 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.--18 years, 198 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft^3/s Apr. 6, 1984, gage height, 6.70 ft; minimum daily, 19 ft^3/s Aug. 30, Sept. 13, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,680 ft^3/s Jan. 28, gage height, 5.42 ft from outside gage; minimum daily, 24 ft^3/s Aug. 30, 31, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	37	136	98	578	152	582	197	67	43	88	24
2	203	38	128	98	445	150	454	142	85	43	88	81
3	196	38	123	100	352	150	311	108	127	43	129	132
4	225	39	158	102	347	147	193	102	147	47	175	143
5	236	40	170	104	342	142	175	105	142	51	175	157
6	257	146	128	109	323	140	193	105	152	58	156	157
7	306	288	128	107	314	137	194	106	159	100	140	157
8	295	277	138	104	287	140	242	108	145	134	140	193
9	299	242	144	104	251	142	329	116	110	127	140	226
10	348	219	138	104	229	142	381	116	74	122	137	228
11	359	195	113	102	233	142	283	113	74	99	100	221
12	324	204	113	96	229	177	166	114	85	84	67	215
13	299	143	128	96	211	153	198	83	143	84	66	202
14	289	114	128	98	187	162	207	56	167	86	66	193
15	282	161	130	102	180	284	150	60	162	86	65	175
16	270	189	136	104	175	501	105	62	143	86	64	159
17	264	219	138	104	172	599	128	64	159	86	64	144
18	225	245	111	104	170	609	103	64	164	86	63	101
19	189	252	59	109	167	647	48	64	157	86	63	72
20	189	252	68	125	167	987	47	64	157	86	54	72
21	184	245	81	186	167	974	49	64	157	62	46	72
22	184	207	96	235	167	752	45	70	157	41	46	79
23	184	184	109	274	165	590	45	71	155	41	46	108
24	184	161	107	341	162	487	45	125	150	41	46	132
25	181	146	104	399	160	421	53	294	94	40	38	103
26	178	138	102	463	157	332	88	224	43	40	33	77
27	114	138	100	741	155	384	163	174	43	40	31	77
28	49	141	102	1500	155	610	236	141	43	40	26	77
29	50	144	104	1270	---	697	256	89	43	40	26	77
30	39	141	104	914	---	683	223	66	43	40	24	95
31	39	---	100	719	---	638	---	67	---	57	24	---
TOTAL	6646	4983	3624	9112	6647	12271	5692	3334	3547	2119	2426	3949
MEAN	214	166	117	294	237	396	190	108	118	68.4	78.3	132
MAX	359	288	170	1500	578	987	582	294	167	134	175	228
MIN	39	37	59	96	155	137	45	56	43	40	24	24

CAL YR 1985 TOTAL 42567 MEAN 117 MAX 727 MIN 29
WTR YR 1986 TOTAL 64350 MEAN 176 MAX 1500 MIN 24

01073000 OYSTER RIVER NEAR DURHAM, N. H.

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. Elevation of gage is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1964, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Jan. 9-18, 29-31,. Records good except those for estimated daily discharges, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--52 years, 19.5 ft^3/s, 21.88 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 greater than base discharge 170 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 27	1630	*311	*4.15	Mar. 15	0500	210	3.53

Minimum discharge, 0.88 ft^3/s Sept. 10, 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	3.4	18	6.8	28	17	31	20	3.7	12	8.7	2.2
2	5.1	3.0	40	6.5	25	16	28	17	25	27	8.1	2.0
3	4.7	2.6	35	7.0	23	17	23	14	18	30	9.0	2.0
4	13	9.8	25	7.6	21	19	20	14	10	18	8.6	1.9
5	16	35	21	7.1	21	20	17	17	7.4	24	7.3	2.0
6	21	68	20	6.6	20	20	16	16	12	44	6.7	2.5
7	12	40	18	5.9	19	19	36	14	19	28	8.4	2.3
8	8.9	29	17	5.9	18	16	38	15	18	20	7.4	2.1
9	8.1	21	17	6.2	18	14	33	16	13	14	6.8	2.0
10	8.9	19	16	6.0	17	13	29	14	8.0	10	6.1	1.2
11	8.0	19	16	5.9	16	17	24	13	11	7.8	6.0	1.4
12	7.4	21	16	5.7	15	23	22	13	27	7.5	5.7	1.5
13	9.7	27	16	5.5	14	24	25	11	40	14	4.9	2.4
14	11	25	17	5.4	13	41	25	9.0	30	14	4.2	1.7
15	9.0	42	16	5.0	14	194	22	8.3	19	15	3.8	1.3
16	8.7	28	14	4.5	12	142	19	8.2	13	14	3.6	1.7
17	7.0	60	13	4.5	11	103	15	8.2	13	11	3.5	1.9
18	5.2	65	12	6.6	12	88	14	7.8	15	8.7	6.5	1.7
19	6.0	49	11	8.4	12	100	15	7.2	16	6.6	7.9	1.6
20	7.3	39	8.8	44	13	113	12	6.4	39	5.4	6.9	1.6
21	5.7	32	8.9	45	20	76	12	6.0	37	5.4	5.3	3.3
22	5.3	28	8.8	34	37	54	12	6.9	20	5.3	3.9	2.6
23	5.2	27	8.7	31	37	46	13	8.2	14	4.6	3.1	6.3
24	4.6	27	9.4	23	36	42	13	8.3	11	4.2	2.8	7.2
25	4.3	23	10	17	31	37	16	13	7.6	4.0	2.3	4.6
26	3.7	21	10	41	25	37	21	10	5.9	3.7	2.1	3.7
27	3.7	21	8.3	254	22	47	54	7.8	4.8	7.1	3.3	3.4
28	3.5	21	7.7	172	19	60	39	6.6	4.1	9.0	3.7	3.0
29	3.6	20	6.9	67	---	49	30	5.1	4.1	7.2	3.1	2.7
30	3.4	19	6.2	40	---	42	23	4.1	12	12	2.5	2.6
31	3.3	---	5.9	35	---	36	---	3.5	---	11	2.4	---
TOTAL	229.4	844.8	457.6	920.1	569	1542	697	328.6	477.6	404.5	164.6	76.4
MEAN	7.40	28.2	14.8	29.7	20.3	49.7	23.2	10.6	15.9	13.0	5.31	2.55
MAX	21	68	40	254	37	194	54	20	40	44	9.0	7.2
MIN	3.3	2.6	5.9	4.5	11	13	12	3.5	3.7	3.7	2.1	1.2
CFSM	.61	2.33	1.22	2.45	1.68	4.11	1.92	.88	1.31	1.07	.44	.21
IN.	.71	2.60	1.41	2.83	1.75	4.74	2.14	1.01	1.47	1.24	.51	.23

CAL YR 1985 TOTAL 4476.30 MEAN 12.3 MAX 140 MIN .33 CFSM 1.02 IN. 13.76
WTR YR 1986 TOTAL 6711.6 MEAN 18.4 MAX 254 MIN 1.2 CFSM 1.52 IN. 20.63

01073500 LAMPREY RIVER NEAR NEWMARKET, N. H.

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. Elevation of gage is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 14-16. Records fair except for period of estimated daily discharges, which are poor. 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.--52 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, 1,930 ft^3/s Jan. 29, gage height, 7.15 ft; minimum daily, 30 ft^3/s Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	66	291	105	680	230	437	300	77	105	206	49
2	135	64	379	93	545	198	384	270	143	158	177	52
3	108	65	470	89	457	189	341	237	180	279	181	49
4	119	65	457	127	396	190	305	207	170	250	165	47
5	168	141	411	158	381	201	290	185	152	264	140	46
6	237	492	353	152	356	216	272	180	167	346	123	45
7	241	623	317	131	320	206	345	179	228	302	121	43
8	230	651	294	106	315	171	400	180	263	243	118	39
9	208	545	282	102	292	158	433	200	247	202	114	36
10	191	408	255	107	276	149	418	189	207	162	108	34
11	184	352	235	106	262	167	379	175	189	134	106	32
12	187	335	237	103	249	228	339	162	247	113	99	31
13	177	356	250	101	234	261	299	149	405	126	87	39
14	179	366	268	96	222	384	266	137	466	155	79	39
15	185	470	267	90	208	1220	249	127	426	211	75	35
16	179	456	248	85	191	1580	232	116	326	196	67	35
17	178	568	224	79	183	1750	223	111	280	169	65	37
18	168	667	162	82	182	1560	168	107	256	151	78	34
19	166	669	130	93	189	1410	182	103	239	126	127	31
20	175	613	140	255	193	1330	173	93	287	106	163	30
21	168	510	136	359	221	1290	167	81	405	93	144	39
22	176	436	138	381	354	1140	168	81	398	84	117	48
23	157	404	140	397	417	879	180	95	346	74	98	55
24	144	389	152	330	450	724	201	112	277	66	84	85
25	135	367	170	258	433	604	214	138	227	59	75	87
26	114	341	167	305	335	477	250	150	187	54	69	80
27	100	330	148	1160	271	500	413	152	156	101	71	80
28	86	331	140	1810	255	640	449	133	134	303	71	69
29	79	328	126	1900	---	650	414	109	117	216	65	57
30	72	311	116	1500	---	603	350	92	113	212	58	51
31	71	---	110	956	---	510	---	80	---	214	53	---
TOTAL	4894	11719	7213	11616	8867	19815	8941	4630	7315	5274	3304	1434
MEAN	158	391	233	375	317	639	298	149	244	170	107	47.8
MAX	241	669	470	1900	680	1750	449	300	466	346	206	87
MIN	71	64	110	79	182	149	167	80	77	54	53	30
CFSM	.86	2.14	1.27	2.05	1.73	3.49	1.63	.81	1.33	.93	.58	.26
IN.	.99	2.38	1.47	2.36	1.80	4.03	1.82	.94	1.49	1.07	.67	.29

CAL YR 1985 TOTAL 62743 MEAN 172 MAX 1380 MIN 11 CFSM .94 IN. 12.75
WTR YR 1986 TOTAL 95022 MEAN 260 MAX 1900 MIN 30 CFSM 1.42 IN. 19.32

01073600 DUDLEY BROOK NEAR EXETER, N. H.

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 December 1986 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 16-31. Records good except for periods of estimated daily discharges, which are fair, and those below 2.0 ft^3/s, which are poor.

AVERAGE DISCHARGE.--23 years, 7.19 ft^3/s, 19.65 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.--Maximum discharge during period October 1985 to December 1985, 95 ft^3/s Nov. 6, gage height, 5.61 ft; minimum daily, 1.1 ft^3/s Oct. 3, Nov. 1, 4, Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.1	5.4									
2	1.4	1.2	23									
3	1.1	1.2	41									
4	1.8	1.1	26									
5	6.6	25	6.3									
6	23	73	5.2									
7	13	28	5.0									
8	5.9	13	5.0									
9	3.5	7.0	5.1									
10	2.5	4.9	4.7									
11	2.0	5.4	4.5									
12	1.7	7.3	4.7									
13	1.8	10	4.9									
14	1.5	11	7.1									
15	2.2	21	7.5									
16	2.5	13	5.0									
17	2.2	31	3.7									
18	1.8	29	2.8									
19	2.6	15	2.1									
20	4.1	9.1	1.7									
21	3.7	6.9	1.4									
22	2.9	5.7	1.5									
23	2.3	6.6	1.6									
24	2.0	8.2	1.8									
25	2.4	6.7	2.0									
26	2.0	5.3	2.5									
27	1.7	6.0	1.7									
28	1.5	7.4	1.4									
29	1.5	6.8	1.3									
30	1.3	5.9	1.2									
31	1.2	---	1.1									
TOTAL	105.7	372.8	188.2									
MEAN	3.41	12.4	6.07									
MAX	23	73	41									
MIN	1.1	1.1	1.1									
CFSM	.69	2.49	1.22									
IN.	.79	2.79	1.41									

CAL YR 1985 TOTAL 1875.57 MEAN 5.14 MAX 87 MIN .07 CFSM 1.03 IN. 14.04

01075800 STEVENS BROOK NEAR WENTWORTH, N. H.

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. Elevation of gage is 595 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 8 to Jan. 27, Jan. 29 to Mar. 19, Mar. 21-23. Records good except for periods of estimated daily discharges, which are fair, and discharges below 1.0 ft^3/s, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--23 years, 4.85 ft^3/s, 22.40 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 320 ft^3/s; minimum, 0.01 ft^3/s several days in 1963-65, 1971, 1975, 1977, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 27	0815	*561	*4.32	Mar. 30	1845	90	2.76
Mar. 19	2200	91	2.77				

Minimum discharge, 0.10 ft^3/s July 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.0	2.9	1.2	5.0	.88	44	3.0	1.8	.40	2.6	.95
2	1.7	1.9	16	1.2	3.5	.88	41	2.7	3.0	.45	15	.83
3	1.5	1.8	9.4	1.2	2.9	.86	26	2.4	2.2	.52	4.8	.79
4	1.5	1.8	5.7	1.2	2.5	.86	19	2.3	1.8	.52	2.6	.78
5	4.2	8.5	4.5	1.2	2.3	.86	12	2.5	1.5	.76	1.7	.83
6	6.6	46	4.1	1.2	2.0	.84	8.0	2.4	1.5	1.5	1.2	2.1
7	3.9	35	3.6	1.2	1.8	.84	11	2.6	1.4	1.1	10	1.7
8	2.9	12	3.2	1.2	1.7	.84	12	2.8	1.3	.71	15	1.2
9	2.5	7.3	2.9	1.2	1.6	.84	9.9	2.7	1.2	.48	5.0	.94
10	2.2	6.6	2.6	1.2	1.5	.84	7.9	2.4	.93	.37	4.6	.80
11	2.0	5.7	2.3	1.2	1.4	.86	6.8	2.1	1.3	.29	2.4	.77
12	1.9	5.5	2.1	1.2	1.3	.95	6.4	1.9	2.2	.43	1.7	.87
13	4.4	5.9	2.0	1.2	1.3	1.0	5.9	1.8	3.5	.66	1.5	1.2
14	5.8	9.8	1.9	1.2	1.2	1.1	5.6	1.6	2.9	.94	1.2	.79
15	13	21	1.8	1.2	1.2	7.5	5.2	1.4	1.7	1.5	1.1	.64
16	11	8.1	1.7	1.3	1.2	6.8	6.0	1.3	1.2	.84	1.1	2.5
17	5.7	8.2	1.6	1.3	1.1	6.0	6.2	1.4	2.8	.54	1.2	3.2
18	3.9	9.3	1.5	1.4	1.1	5.6	6.0	1.5	2.1	.41	1.2	1.6
19	7.5	8.9	1.5	1.3	1.1	35	5.3	1.2	1.4	.33	1.5	1.3
20	6.8	10	1.4	13	1.0	46	4.5	1.1	1.2	.25	1.2	1.2
21	4.6	6.7	1.3	14	.98	22	4.6	3.9	.96	.27	.96	1.7
22	3.5	5.1	1.3	4.0	.96	15	8.9	14	.78	.23	.85	1.9
23	3.1	4.4	1.4	3.0	.94	11	5.6	16	.69	.20	.78	2.7
24	2.8	3.7	1.3	2.5	.92	9.1	4.2	27	.65	.16	4.5	4.1
25	2.6	3.7	1.3	6.0	.90	8.4	3.7	16	.61	.12	3.2	2.6
26	2.6	3.6	1.3	25	.90	9.5	7.8	7.4	.54	2.1	2.1	1.9
27	2.6	3.3	1.3	200	.90	36	6.5	4.8	.49	9.4	2.0	1.5
28	2.3	3.2	1.2	33	.80	42	4.6	3.4	.49	2.6	3.5	1.3
29	2.0	3.1	1.2	12	---	43	3.9	2.6	.47	8.9	2.1	1.2
30	2.0	2.9	1.2	9.0	---	67	3.4	2.4	.48	9.8	1.6	1.2
31	2.0	---	1.2	8.0	---	62	---	1.8	---	3.5	1.2	---
TOTAL	121.1	255.0	86.7	352.8	44.00	444.35	301.9	140.4	43.09	50.28	99.39	45.09
MEAN	3.91	8.50	2.80	11.4	1.57	14.3	10.1	4.53	1.44	1.62	3.21	1.50
MAX	13	46	16	200	5.0	67	44	27	3.5	9.8	15	4.1
MIN	1.5	1.8	1.2	1.2	.80	.84	3.4	1.1	.47	.12	.78	.64
CFSM	1.33	2.89	.95	3.87	.53	4.88	3.42	1.54	.49	.55	1.09	.51
IN.	1.53	3.23	1.10	4.46	.56	5.62	3.82	1.78	.55	.64	1.26	.57

CAL YR 1985 TOTAL 1253.57 MEAN 3.43 MAX 52 MIN .02 CFSM 1.17 IN. 15.86
WTR YR 1986 TOTAL 1984.08 MEAN 5.44 MAX 200 MIN .12 CFSM 1.85 IN. 25.10

01076500 PEMIGEWASSET RIVER AT PLYMOUTH, N. H.

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 above 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.--Estimated daily discharges: Dec. 10 to Mar. 26. Records good except for estimated daily discharges, 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.--83 years, 1,360 ft^3/s, 29.69 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,400 ft^3/s Mar. 19, 1936, gage height, 29.0 ft, from flood-marks, 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.--Peak discharges greater than base discharge of 12,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 27	2000	*15,000	a*20.28	Mar. 31	0600	13,700	9.68

a Ice jam.

Minimum discharge, 230 ft^3/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	861	548	804	415	1900	560	9350	1940	869	373	921	663
2	671	529	2200	410	1600	550	8940	1760	1350	370	2520	606
3	577	507	2800	400	1500	540	7230	1500	1130	435	1920	557
4	518	483	1630	400	1400	530	5120	1300	901	501	1300	521
5	585	567	1400	390	1300	520	3940	1210	794	485	911	526
6	1700	4120	1120	390	1200	500	3350	1200	749	663	738	1100
7	1040	5460	1010	380	1250	480	3170	1180	715	633	1190	911
8	787	3080	927	380	1100	470	3450	1430	708	519	2690	679
9	658	1920	876	380	1050	470	3230	1390	707	416	2280	589
10	588	1630	800	380	1000	460	2940	1180	601	359	1950	512
11	533	1660	760	380	950	450	2600	1070	617	316	1380	480
12	487	1450	770	380	900	440	2300	992	864	315	1100	505
13	575	1630	670	380	880	680	2080	925	1260	413	833	712
14	1230	1890	630	380	840	1000	1960	856	1210	519	710	565
15	1430	4070	600	370	820	1500	2040	793	871	838	628	479
16	4850	2550	580	370	800	2700	2190	769	710	626	586	712
17	2150	2250	560	370	780	1600	2320	789	1080	466	605	1050
18	1360	2500	540	360	750	1800	2360	802	1060	389	580	779
19	1570	2190	530	600	720	2200	2260	747	776	341	1040	666
20	1920	2370	510	900	710	6000	2060	748	680	324	778	583
21	1290	2510	500	2100	700	4000	2180	1190	612	343	639	726
22	1090	1780	480	1800	670	2400	3870	3680	542	330	570	806
23	1000	1500	470	1700	660	2000	2930	2520	508	285	507	782
24	907	1280	460	1000	640	1800	2180	4310	502	268	1770	1380
25	923	1160	450	760	630	1600	2130	4860	482	257	1750	1070
26	923	1020	440	1000	610	1500	3650	2830	480	272	1380	829
27	789	1010	430	14000	590	3370	3740	2000	428	726	1230	712
28	707	963	430	10000	570	5920	2990	1550	420	635	1660	637
29	642	904	425	6000	---	5920	2580	1240	409	1020	1110	596
30	603	840	420	3000	---	9160	2300	1100	382	2110	876	673
31	577	---	420	2500	---	12800	---	966	---	1340	751	---
TOTAL	33541	54371	24642	52275	26520	73920	101440	48827	22417	16887	36903	21406
MEAN	1082	1812	795	1686	947	2385	3381	1575	747	545	1190	714
MAX	4850	5460	2800	14000	1900	12800	9350	4860	1350	2110	2690	1380
MIN	487	483	420	360	570	440	1960	747	382	257	507	479
CFSM	1.74	2.91	1.28	2.71	1.52	3.83	5.44	2.53	1.20	.88	1.91	1.15
IN.	2.01	3.25	1.47	3.13	1.59	4.42	6.07	2.92	1.34	1.01	2.21	1.28

CAL YR 1985 TOTAL 397545 MEAN 1089 MAX 6800 MIN 133 CFSM 1.75 IN. 23.78
WTR YR 1986 TOTAL 513149 MEAN 1406 MAX 14000 MIN 257 CFSM 2.26 IN. 30.69

01077000 SQUAM RIVER AT ASHLAND, N. H.

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. Elevation of gage is 545 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those below 20 ft^3/s, which are fair. Flow completely regulated by Squam and Little Squam Lakes.

AVERAGE DISCHARGE.--47 years, 89.2 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, 167 ft^3/s Apr. 13, gage height, 10.89 ft; minimum daily, 1.4 ft^3/s June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	59	60	64	118	115	87	61	117	3.9	111	96
2	60	59	60	62	118	115	87	61	117	3.5	120	96
3	60	58	60	60	118	115	88	61	117	3.5	120	96
4	60	57	60	60	134	115	132	61	117	3.5	119	96
5	60	58	60	61	152	115	165	61	117	3.7	118	94
6	60	59	61	60	152	115	165	61	117	3.9	118	95
7	60	59	60	61	152	115	165	61	117	3.4	118	96
8	60	60	60	60	152	115	165	61	117	4.5	148	95
9	60	59	60	60	152	115	165	61	86	4.4	165	94
10	60	60	60	60	152	115	165	61	63	55	165	94
11	60	60	60	60	152	114	165	61	63	85	167	94
12	40	60	60	60	153	109	165	61	63	64	167	93
13	60	60	60	60	153	113	166	61	96	64	167	92
14	60	60	60	60	153	115	166	61	117	64	167	93
15	60	60	60	60	152	115	165	61	117	64	165	94
16	60	60	60	60	152	115	167	61	117	64	165	93
17	60	60	60	60	152	115	166	61	116	64	165	92
18	60	60	60	60	152	115	119	61	115	64	165	94
19	60	60	60	60	152	140	86	61	115	64	162	93
20	60	60	60	60	152	157	86	61	115	64	162	92
21	60	60	60	60	148	156	73	61	115	63	161	92
22	60	60	60	60	152	156	63	62	115	63	133	91
23	59	60	60	60	152	158	63	61	115	63	115	89
24	59	60	60	60	152	157	61	63	115	62	115	89
25	59	60	60	60	152	159	63	91	115	61	103	89
26	59	60	60	62	152	113	63	117	82	60	96	90
27	59	60	60	71	127	85	63	117	39	60	96	89
28	59	59	59	65	115	86	63	117	1.4	61	97	90
29	59	60	59	97	---	86	63	117	1.8	63	96	89
30	59	60	62	118	---	88	62	117	3.9	85	96	90
31	59	---	64	118	---	88	---	117	---	98	96	---
TOTAL	1831	1787	1865	2039	4073	3690	3472	2260	2822.1	1489.3	4158	2780
MEAN	59.1	59.6	60.2	65.8	145	119	116	72.9	94.1	48.0	134	92.7
MAX	60	60	64	118	153	159	167	117	117	98	167	96
MIN	40	57	59	60	115	85	61	61	1.4	3.4	96	89

CAL YR 1985 TOTAL 21077.2 MEAN 57.7 MAX 64 MIN 1.4
WTR YR 1986 TOTAL 32266.4 MEAN 88.4 MAX 167 MIN 1.4

01078000 SMITH RIVER NEAR BRISTOL, N. H.

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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Nov. 25, 1933, nonrecording gage at site 1.5 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-18, Dec. 12-18, 23-31, Jan. 1-7, 20-25, 28-31, Mar. 5-8. Records good except for estimated daily discharges, 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.--68 years, 144 ft^3/s, 22.79 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft^3/s Mar. 19, 1936, gage height, 16.09 ft, from flood-marks, 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 greater than base discharge 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)
Jan. 27	1200	*2,130	*7.34	Mar. 31	1730	1,400	6.07

Minimum discharge, 18 ft^3/s Sept. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	49	105	54	392	69	1180	114	107	40	193	24
2	114	48	236	54	259	68	968	102	231	46	443	23
3	95	46	326	54	213	66	791	92	223	65	392	22
4	93	44	185	55	187	66	611	87	144	62	262	22
5	140	103	185	56	165	66	446	87	109	78	169	24
6	249	553	154	56	153	65	353	104	103	197	121	35
7	193	629	127	56	137	69	378	102	99	151	101	35
8	133	442	119	55	130	67	406	105	98	99	118	29
9	114	263	111	54	118	64	381	105	85	67	121	25
10	100	200	102	55	115	63	334	93	68	52	100	22
11	87	183	97	55	111	65	287	83	108	43	94	21
12	78	191	90	54	103	73	262	76	300	54	106	21
13	102	198	85	55	97	77	233	72	503	200	80	22
14	213	230	80	53	94	87	211	66	390	225	64	21
15	233	444	80	50	92	258	195	62	234	226	56	19
16	394	377	78	48	88	400	180	58	157	159	53	38
17	206	333	76	48	83	434	167	61	175	105	52	63
18	115	356	70	50	84	407	154	65	157	75	56	48
19	156	329	58	54	86	600	141	58	113	60	57	38
20	173	299	61	110	87	947	130	51	110	60	52	33
21	127	254	65	250	85	841	128	67	121	93	46	44
22	97	208	61	270	89	648	190	163	92	78	41	54
23	83	184	60	195	86	441	170	155	77	60	36	72
24	75	166	64	150	83	348	141	337	76	50	38	158
25	79	148	62	110	80	270	143	560	71	42	40	115
26	75	131	60	240	80	282	172	443	63	38	36	76
27	67	127	58	1630	79	606	193	234	56	154	35	58
28	59	124	56	1400	72	903	157	152	53	161	35	48
29	56	118	54	1100	---	1040	136	111	49	144	32	43
30	51	108	54	830	---	1210	130	122	44	313	28	49
31	49	---	54	540	---	1360	---	117	---	264	26	---
TOTAL	3962	6885	3073	7841	3448	11960	9368	4104	4216	3461	3083	1302
MEAN	128	230	99.1	253	123	386	312	132	141	112	99.5	43.4
MAX	394	629	326	1630	392	1360	1180	560	503	313	443	158
MIN	49	44	54	48	72	63	128	51	44	38	26	19
CFSM	1.49	2.68	1.16	2.95	1.43	4.50	3.64	1.54	1.64	1.31	1.16	.51
IN.	1.72	2.99	1.33	3.40	1.49	5.19	4.06	1.78	1.83	1.50	1.34	.56

CAL YR 1985 TOTAL 46842.8 MEAN 128 MAX 899 MIN 5.9 CFSM 1.49 IN. 20.31
WTR YR 1986 TOTAL 62703 MEAN 172 MAX 1630 MIN 19 CFSM 2.00 IN. 27.19

01080000 LAKE WINNIPESAUKEE AT WEIRS BEACH, N. H.

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 above 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 500.57 ft and 504.24 ft above 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, 5.94 ft June 4, 1984; minimum daily, 0.63 ft Dec. 11, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 4.49 ft Aug. 11; minimum daily, 2.52 ft Jan. 25.

GAGE HEIGHT (FEET) WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.64	2.64	2.97	2.80	3.43	3.21	3.91	4.17	4.35	4.22	4.40	3.82
2	2.65	2.60	2.97	2.79	3.49	3.18	3.93	4.13	4.41	4.23	4.39	3.81
3	2.64	2.60	2.93	2.81	3.50	3.15	3.96	4.10	4.41	4.22	4.39	3.82
4	2.68	2.59	2.97	2.81	3.51	3.13	3.97	4.10	4.41	4.22	4.38	3.81
5	2.71	2.60	2.96	2.85	3.53	3.09	3.98	4.11	4.40	4.23	4.34	3.79
6	2.73	2.69	2.98	2.84	3.50	3.07	3.99	4.13	4.43	4.27	4.32	3.81
7	2.73	2.72	2.96	2.80	3.51	3.04	4.04	4.14	4.42	4.25	4.32	3.79
8	2.72	2.72	2.97	2.78	3.53	3.00	4.09	4.15	4.40	4.24	4.39	3.78
9	2.72	2.73	2.95	2.79	3.53	3.00	4.12	4.15	4.34	4.23	4.45	3.76
10	2.72	2.74	2.93	2.77	3.51	2.98	4.13	4.14	4.34	4.19	4.48	3.75
11	2.69	2.77	2.95	2.75	3.58	2.94	4.14	4.13	4.37	4.16	4.49	3.73
12	2.69	2.77	2.97	2.74	3.46	2.92	4.14	4.12	4.43	4.19	4.47	3.73
13	2.73	2.77	2.98	2.72	3.48	2.90	4.14	4.11	4.43	4.26	4.43	3.71
14	2.75	2.79	2.97	2.69	3.46	2.91	4.14	4.10	4.42	4.26	4.39	3.69
15	2.78	2.83	2.99	2.68	3.44	3.00	4.15	4.10	4.41	4.25	4.34	3.67
16	2.78	2.86	2.99	2.67	3.40	3.03	4.13	4.10	4.41	4.25	4.29	3.69
17	2.78	2.93	2.97	2.65	3.39	3.06	4.11	4.10	4.38	4.24	4.26	3.69
18	2.78	2.95	2.93	2.62	3.37	3.07	4.09	4.10	4.37	4.23	4.23	3.69
19	2.81	2.98	2.94	2.62	3.37	3.14	4.07	4.09	4.36	4.22	4.20	3.67
20	2.80	2.99	2.95	2.67	3.34	3.29	4.05	4.10	4.38	4.21	4.16	3.67
21	2.80	2.96	2.95	2.68	3.34	3.35	4.06	4.14	4.40	4.23	4.13	3.69
22	2.80	2.98	2.95	2.68	3.37	3.39	4.06	4.21	4.37	4.22	4.07	3.68
23	2.80	2.99	2.96	2.67	3.36	3.43	4.07	4.22	4.36	4.20	4.05	3.71
24	2.80	2.98	2.95	2.66	3.35	3.47	4.08	4.31	4.34	4.19	3.97	3.74
25	2.77	2.95	2.92	2.52	3.31	3.50	4.11	4.39	4.27	4.17	3.91	3.72
26	2.75	2.97	2.91	2.76	3.27	3.52	4.13	4.41	4.27	4.16	3.92	3.71
27	2.74	2.97	2.90	2.97	3.25	3.57	4.17	4.40	4.25	4.26	3.92	3.70
28	2.68	2.98	2.88	3.25	3.23	3.66	4.17	4.39	4.24	4.27	3.90	3.69
29	2.66	2.98	2.86	3.33	---	3.73	4.18	4.38	4.22	4.31	3.85	3.69
30	2.67	2.97	2.84	3.41	---	3.80	4.18	4.37	4.21	4.42	3.84	3.68
31	2.66	---	2.83	3.43	---	3.85	---	4.36	---	4.42	3.83	---
MEAN	2.73	2.83	2.94	2.81	3.42	3.24	4.08	4.19	4.36	4.24	4.21	3.73
MAX	2.81	2.99	2.99	3.43	3.58	3.85	4.18	4.41	4.43	4.42	4.49	3.82
MIN	2.64	2.59	2.83	2.52	3.23	2.90	3.91	4.09	4.21	4.16	3.83	3.67
(†)	15190	15790	15490	16700	16300	19600	18180	18540	18280	18640	17480	17220
(‡)	33.6	231	-112	452	-174	485	224	134	-100	134	-433	-100

CAL YR 1985 MEAN 3.00 MAX 3.68 MIN 2.34 (†) 1.9
WTR YR 1986 MEAN 3.57 MAX 4.49 MIN 2.52 (‡) 66.6

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

01081000 WINNIPESAUKEE RIVER AT TILTON, N. H.

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 above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-30, Dec. 18, 19, Jan. 8, 11-17, Apr. 12 to May 8. Records good except for estimated daily discharges, which are fair. 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.--49 years, 708 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,580 ft^3/s May 31, 1984, gage height, 8.68 ft; minimum daily discharge, 48 ft^3/s Aug. 31, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,170 ft^3/s Jan. 27, gage height, 6.04 ft, minimum daily, 211 ft^3/s Oct. 29, Nov. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	211	523	576	1070	1080	1590	385	732	283	814	332
2	229	212	576	570	1040	1080	1670	571	459	305	873	323
3	233	218	581	576	1030	1080	1720	583	412	323	898	291
4	233	218	545	576	1020	1080	1500	593	359	314	877	279
5	236	247	542	580	1020	1080	1450	606	393	334	789	280
6	236	353	538	568	1010	1080	1430	602	602	387	748	292
7	240	366	535	568	1000	1090	1420	593	800	369	720	287
8	244	315	524	575	996	1100	1330	408	825	349	794	284
9	248	281	511	567	996	1070	1330	338	776	337	1130	294
10	248	256	478	612	982	1080	1300	296	416	331	1190	295
11	244	252	369	715	1060	1080	1160	271	338	367	1150	293
12	244	261	356	700	1120	1080	1180	265	506	424	1330	284
13	240	266	350	675	1200	1080	1200	274	787	487	1350	276
14	240	314	347	650	1250	1110	1230	278	923	475	1300	280
15	236	410	339	630	1250	1230	1120	274	905	464	1140	279
16	236	516	336	610	1250	1340	1100	262	888	444	1150	302
17	233	580	343	590	1250	1360	1080	267	926	405	1210	296
18	233	590	340	576	1240	1330	1080	277	864	388	1220	298
19	229	567	335	572	1230	1520	930	274	849	394	1240	253
20	229	551	334	602	1180	2000	790	268	917	384	1130	304
21	226	539	323	602	1110	1820	645	274	1180	365	920	318
22	255	537	324	614	1130	1680	431	298	1200	371	889	303
23	226	537	329	622	1120	1620	602	307	1120	364	873	306
24	222	533	379	604	1120	1580	632	327	872	353	864	323
25	222	529	554	593	1100	1370	636	372	837	336	764	320
26	222	531	576	673	1100	1240	639	419	833	337	463	313
27	218	586	569	1590	1090	1360	642	661	717	393	429	289
28	218	532	567	1980	1080	1460	645	783	396	387	445	288
29	211	513	566	1880	---	1380	641	881	348	496	426	293
30	218	518	566	1630	---	1360	396	880	326	659	354	291
31	215	---	570	1300	---	1430	---	865	---	666	337	---
TOTAL	7193	12339	14125	24176	31044	40250	31519	13752	21506	12291	27817	8866
MEAN	232	411	456	780	1109	1298	1051	444	717	396	897	296
MAX	255	590	581	1980	1250	2000	1720	881	1200	666	1350	332
MIN	211	211	323	567	982	1070	396	262	326	283	337	253

CAL YR 1985 TOTAL 148159 MEAN 406 MAX 1200 MIN 211
WTR YR 1986 TOTAL 244878 MEAN 671 MAX 2000 MIN 211

01083000 NUBANUSIT BROOK NEAR PETERBOROUGH, N. H.

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. Elevation of gage is 790 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1931, at site 550 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 15, 19, 20, 25-27, Jan. 1-19, 26-29, Feb. 16, 17, 21-28, Mar. 1-9. Records good except for estimated daily discharges, which are poor. 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.--52 years, 84.8 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, 538 ft^3/s Mar. 25, gage height, 3.92 ft; minimum daily, 10 ft^3/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	21	69	22	203	56	403	80	12	24	257	42
2	19	20	80	22	188	54	339	73	12	34	202	53
3	20	16	100	22	195	52	287	65	19	54	141	49
4	48	15	109	25	212	54	221	58	26	72	103	50
5	59	26	125	33	199	60	148	54	31	66	104	61
6	105	95	114	40	324	70	76	53	39	52	101	54
7	100	215	93	40	369	65	89	50	62	42	116	41
8	96	235	76	30	368	58	140	46	73	34	119	41
9	84	133	58	23	366	58	181	35	72	27	121	43
10	56	96	55	23	355	64	169	33	60	22	116	49
11	46	69	58	23	391	52	127	41	48	19	135	49
12	37	44	59	23	418	72	76	49	57	19	105	48
13	31	24	59	23	374	115	79	48	111	25	42	45
14	29	36	61	22	216	108	106	42	162	33	50	43
15	38	87	61	22	132	52	96	36	173	34	88	49
16	95	107	61	22	120	73	78	32	138	35	53	59
17	88	109	61	22	100	258	78	33	101	32	71	69
18	70	135	61	25	83	444	77	36	85	27	79	62
19	83	157	54	30	83	217	71	36	81	22	88	63
20	82	150	45	37	83	138	55	32	104	18	132	63
21	94	124	43	53	60	337	51	29	176	16	106	72
22	83	103	45	89	54	481	59	31	184	15	70	80
23	72	98	38	113	64	488	66	32	202	13	46	47
24	58	98	46	129	58	501	73	37	178	11	45	51
25	38	90	52	135	130	527	79	47	64	10	46	101
26	31	82	45	80	130	510	87	55	49	11	42	109
27	22	73	40	45	120	512	94	50	38	19	46	97
28	20	69	35	25	80	506	105	41	34	22	49	83
29	19	73	33	60	---	489	98	33	32	47	47	75
30	20	74	35	113	---	436	87	28	28	121	47	73
31	21	---	37	168	---	419	---	24	---	207	44	---
TOTAL	1686	2674	1908	1539	5475	7326	3695	1339	2451	1183	2811	1821
MEAN	54.4	89.1	61.5	49.6	196	236	123	43.2	81.7	38.2	90.7	60.7
MAX	105	235	125	168	418	527	403	80	202	207	257	109
MIN	19	15	33	22	54	52	51	24	12	10	42	41

CAL YR 1985 TOTAL 18698.7 MEAN 51.2 MAX 384 MIN 7.8
WTR YR 1986 TOTAL 33908 MEAN 92.9 MAX 527 MIN 10

01085500 CONTOOCOOK RIVER BELOW HOPKINTON DAM, AT WEST HOPKINTON, N. H.

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. Elevation of gage is 355 ft above National Geodetic Vertical Datum of 1929, from topographic map. August 1903 to April 1907, nonrecording gage at site 400 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 26 to Jan. 21. Records good except for periods of estimated daily discharges and periods of backwater from grass Oct. 1 to Nov. 21 and Aug. 13 to Sept. 30, 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, March 1979, and May and June 1984. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--23 years (water years 1963-86), 708 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, 4,290 ft^3/s Mar. 21, gage height, 7.46 ft; minimum daily discharge, 89 ft^3/s Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	465	184	716	350	3900	623	3420	524	336	443	1990	249
2	487	201	783	340	3670	618	2860	481	312	563	1610	141
3	456	229	1110	340	3610	501	2390	428	303	907	1400	293
4	516	223	1190	330	3260	435	1510	389	245	774	1200	499
5	686	377	1010	340	2130	488	1510	385	218	579	985	624
6	839	1080	948	350	1630	501	1440	372	281	653	693	516
7	884	1720	793	380	1490	501	1460	372	379	619	745	422
8	869	1760	692	390	1490	525	1550	372	412	428	860	111
9	680	1410	708	370	1450	464	1580	372	448	365	957	170
10	549	1200	721	360	1360	426	1500	372	476	269	982	124
11	531	972	681	350	926	482	1400	316	435	224	885	95
12	542	982	651	340	1060	505	1280	332	558	187	823	89
13	526	1030	667	330	1300	535	1170	315	1190	271	719	167
14	584	1060	717	330	1260	615	1060	310	1330	465	629	247
15	598	1050	673	320	1160	1290	750	293	1120	460	490	200
16	592	1150	611	320	1060	1590	900	256	1030	434	497	193
17	528	1210	620	330	866	2260	640	249	1180	455	503	284
18	374	1490	579	340	823	2980	594	255	1210	286	801	269
19	374	1620	582	350	622	3000	546	287	1030	308	1220	251
20	423	1570	552	380	510	3380	522	241	992	234	1050	291
21	491	1400	526	520	590	4130	506	242	1520	232	793	241
22	512	1070	503	849	738	4170	520	343	1570	222	740	213
23	599	1190	426	893	867	4000	549	366	1280	163	543	226
24	451	1050	424	886	854	4020	553	448	1010	157	506	327
25	449	929	352	652	850	4040	596	554	805	125	557	504
26	430	844	440	793	785	3790	677	587	818	118	436	484
27	395	810	420	918	736	3570	674	560	463	163	471	431
28	307	848	400	1370	700	3620	689	400	436	213	447	365
29	242	826	380	2930	---	3650	657	407	420	317	463	334
30	227	764	370	3950	---	3630	647	364	375	1040	398	327
31	245	---	360	4130	---	3600	---	372	---	2110	333	---
TOTAL	15851	30249	19605	24831	39697	63939	34150	11564	22182	13784	24726	8687
MEAN	511	1008	632	801	1418	2063	1138	373	739	445	798	290
MAX	884	1760	1190	4130	3900	4170	3420	587	1570	2110	1990	624
MIN	227	184	352	320	510	426	506	241	218	118	333	89

CAL YR 1985 TOTAL 172204 MEAN 472 MAX 2350 MIN 51
WTR YR 1986 TOTAL 309265 MEAN 847 MAX 4170 MIN 89

01085800 WEST BRANCH WARNER RIVER NEAR BRADFORD, N. H.

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 mi^2.

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

REVISED RECORDS.--WDR NH-VT-1: 1984.

GAGE.--Water-stage recorder. Elevation of gage is 950 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 15-22, Dec. 12 to Jan. 6, Jan. 10-15, Jan. 27 to Feb. 13, Feb. 15 to Mar. 12. Records good except for estimated daily discharges, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--24 years, 11.5 ft^3/s, 27.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 800 ft^3/s May 29 or 30, 1984, from rating curve extended above 210 ft^3/s; minimum, about 0.06 ft^3/s about Sept. 20, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge 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)
Nov. 6	0445	181	5.13	Mar. 19	1745	*283	*7.27
Jan. 27	--	190	--	Mar. 29	1815	157	6.33

Minimum discharge, 1.2 ft^3/s Sept. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	3.0	7.5	3.2	20	3.6	56	7.8	6.3	2.4	17	2.8
2	4.7	2.8	42	3.2	15	3.6	43	7.4	18	23	20	2.5
3	4.3	2.8	24	3.2	13	3.5	30	6.6	7.6	16	25	2.5
4	8.2	2.8	14	3.1	10	3.5	24	6.5	5.3	8.4	14	2.6
5	24	61	11	3.0	9.0	3.5	20	6.6	4.0	6.5	8.1	3.2
6	22	114	9.9	3.0	8.0	3.7	17	6.8	4.6	5.6	6.4	3.8
7	11	45	9.0	2.8	7.2	3.6	30	6.6	5.9	4.9	12	3.0
8	7.6	23	8.6	2.7	6.8	3.5	34	7.5	6.7	3.2	68	2.6
9	6.4	15	7.9	2.7	6.0	3.5	27	7.9	4.8	2.6	33	2.2
10	5.7	12	7.3	2.6	5.7	3.5	20	6.6	3.3	2.2	18	2.0
11	4.6	15	7.0	2.6	5.3	4.5	18	5.9	6.5	1.9	18	1.8
12	4.2	17	6.7	2.6	5.0	5.7	16	5.6	4.7	4.3	11	1.8
13	8.8	23	6.3	2.6	4.8	5.4	14	5.3	2.1	18	7.9	1.8
14	10	24	6.0	2.5	4.4	9.0	12	4.8	3.6	19	6.3	1.4
15	11	62	5.6	2.5	4.2	52	11	4.5	4.7	10	5.2	1.2
16	11	23	5.3	2.7	4.0	42	10	4.1	9.8	5.6	5.5	4.0
17	7.6	22	5.0	2.6	3.9	34	9.7	4.1	8.3	3.7	15	3.3
18	6.3	25	4.8	2.8	4.0	35	8.8	3.8	3.5	2.8	22	2.2
19	7.7	26	4.6	4.2	4.3	138	8.3	3.3	5.5	2.5	19	2.1
20	8.5	28	4.2	22	4.2	115	8.1	2.8	29	2.5	12	2.2
21	6.6	18	4.2	23	4.5	54	11	4.1	17	2.6	8.6	8.2
22	5.7	13	4.0	13	5.2	35	19	8.4	8.8	2.2	6.8	5.1
23	5.1	13	3.9	10	4.8	26	13	6.8	6.7	1.8	5.6	11
24	4.8	12	3.8	9.1	4.5	25	12	19	5.5	1.5	7.6	11
25	5.0	10	3.8	6.3	4.2	21	12	16	4.6	1.3	6.1	5.9
26	4.5	8.7	3.7	30	3.9	72	13	9.4	3.6	5.3	4.7	4.1
27	4.0	9.4	3.6	125	3.8	120	12	6.5	3.2	17	6.2	3.1
28	3.7	9.4	3.4	90	3.7	108	11	4.8	2.9	7.1	5.4	2.9
29	3.3	8.6	3.3	50	---	104	9.0	3.6	2.9	14	4.3	2.9
30	3.1	7.9	3.2	45	---	114	8.3	2.9	3.4	40	3.6	2.9
31	3.1	---	3.2	25	---	87	---	2.7	---	27	3.1	---
TOTAL	228.4	656.4	236.8	503.0	179.4	1242.1	537.2	198.7	202.8	264.9	405.4	106.1
MEAN	7.37	21.9	7.64	16.2	6.41	40.1	17.9	6.41	6.76	8.55	13.1	3.54
MAX	24	114	42	125	20	138	56	19	29	40	68	11
MIN	3.1	2.8	3.2	2.5	3.7	3.5	8.1	2.7	2.1	1.3	3.1	1.2
CFSM	1.28	3.81	1.33	2.82	1.11	6.97	3.11	1.11	1.18	1.49	2.28	.62
IN.	1.48	4.25	1.53	3.25	1.16	8.04	3.48	1.29	1.31	1.71	2.62	.69

CAL YR 1985 TOTAL 3052.51 MEAN 8.36 MAX 120 MIN .18 CFSM 1.45 IN. 19.75
WTR YR 1986 TOTAL 4761.2 MEAN 13.0 MAX 138 MIN 1.2 CFSM 2.26 IN. 30.80

01087000 BLACKWATER RIVER NEAR WEBSTER, N. H.

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. Elevation of gage is 430 ft above National Geodetic Datum of 1929, from topographic map. Prior to Oct. 1, 1935, chain gage at site 5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Feb. 1-15, Mar. 31 to Apr. 3. Records good except for estimated daily discharges, 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.--61 years, 214 ft^3/s, 22.53 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, 1,600 ft^3/s Apr. 2; gage height, unknown; minimum, 30 ft^3/s Sept. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	74	218	107	1180	142	1420	181	106	75	243	47
2	136	72	246	104	1100	141	1550	169	112	84	266	44
3	112	71	357	103	1050	137	1530	156	135	110	274	43
4	104	68	413	103	500	134	1220	146	153	118	271	42
5	114	78	339	106	270	134	878	140	129	114	233	41
6	166	233	295	107	240	135	700	147	112	109	177	43
7	223	536	248	108	220	136	556	161	105	116	150	46
8	187	754	238	104	200	131	544	172	105	116	157	62
9	150	590	223	101	195	128	565	174	104	99	182	68
10	129	372	208	102	190	127	549	166	97	82	171	55
11	113	286	185	103	180	127	410	152	108	71	158	45
12	94	270	177	101	190	132	379	139	205	66	151	40
13	83	275	174	101	200	140	489	130	439	102	138	37
14	89	284	161	100	190	159	400	122	627	190	118	34
15	120	363	122	95	180	271	310	115	634	255	101	31
16	146	445	151	93	172	437	285	108	415	258	90	35
17	178	477	161	92	165	604	265	105	315	202	83	40
18	169	495	141	93	162	664	248	102	291	148	79	42
19	144	535	130	96	160	614	231	98	268	116	79	45
20	139	516	128	120	160	773	216	94	239	99	78	46
21	147	458	126	190	164	1120	207	93	246	98	76	51
22	140	400	123	254	181	1190	223	117	237	93	72	66
23	124	348	122	274	193	1180	254	162	204	89	67	67
24	110	318	123	249	185	1060	247	199	178	80	64	88
25	102	295	125	201	179	908	228	281	162	71	62	108
26	100	272	120	208	163	620	228	357	150	64	59	105
27	102	256	116	255	153	689	237	292	136	69	57	89
28	97	251	113	238	148	916	238	207	110	84	57	75
29	88	243	111	716	---	1080	215	159	93	118	56	64
30	82	231	108	1140	---	1150	195	130	83	255	53	56
31	77	---	107	1200	---	1300	---	114	---	278	50	---
TOTAL	3955	9866	5609	6964	8270	16479	15017	4888	6298	3829	3872	1655
MEAN	128	329	181	225	295	532	501	158	210	124	125	55.2
MAX	223	754	413	1200	1180	1300	1550	357	634	278	274	108
MIN	77	68	107	92	148	127	195	93	83	64	50	31
MEAN†	127	329	181	291	222	591	440	158	210	129	120	55.2
CFSM†	.98	2.55	1.40	2.26	1.72	4.58	3.41	1.22	1.63	1.00	.93	.43
IN†	1.14	2.85	1.61	2.60	1.79	5.28	3.80	1.41	1.81	1.15	1.07	.48

CAL YR 1985 TOTAL 54471 MEAN 149 MAX 978 MIN 14 MEAN† 149 CFSM† 1.16 IN† 15.70
WTR YR 1986 TOTAL 86702 MEAN 238 MAX 1550 MIN 31 MEAN† 237 CFSM† 1.84 IN† 25.00

† Adjusted for change in contents for Blackwater Reservoir.

01089000 SOUCOOK RIVER NEAR CONCORD, N. H.

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 mi².

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. Elevation of gage is 290 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 19, Jan. 31 to Feb. 21, Aug. 9 to Sept. 21. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--35 years, 113 ft³/s, 19.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft³/s Mar. 14, 1977, gage height, 14.50 ft; minimum, 1.5 ft³/s Aug. 7, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 27	2230	*2,050	*12.14	Mar. 17	1430	721	9.04
Mar. 20	0800	1,270	10.43				

Minimum daily discharge, 9.2 ft³/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	27	88	45	300	89	341	98	47	32	127	14
2	13	30	157	44	250	85	282	90	126	47	107	13
3	12	29	213	46	210	81	237	80	144	100	120	13
4	53	27	166	48	180	80	207	74	96	78	109	16
5	68	39	136	50	155	81	182	68	76	64	90	13
6	118	153	113	51	140	81	160	70	73	190	71	17
7	78	174	107	49	125	80	221	72	78	145	72	25
8	60	142	98	47	117	71	267	79	80	99	102	15
9	49	110	94	46	108	72	286	87	73	71	144	12
10	42	98	88	45	102	70	232	83	61	58	133	10
11	36	96	84	45	98	72	200	74	94	48	111	11
12	29	97	84	44	93	82	177	68	251	42	100	11
13	29	105	82	43	90	86	155	61	267	84	79	11
14	47	100	84	40	87	123	140	57	194	90	69	9.8
15	55	161	69	38	83	439	127	53	128	92	57	9.2
16	69	146	76	36	79	664	117	49	97	79	52	13
17	65	192	76	36	74	587	108	50	140	65	50	22
18	52	267	66	37	79	548	101	50	112	51	56	20
19	58	215	52	40	82	664	94	48	84	42	59	18
20	74	179	53	91	84	1150	90	43	148	40	52	17
21	61	153	54	159	90	707	88	44	203	52	46	20
22	52	133	53	157	186	540	97	92	126	44	30	32
23	47	128	54	133	215	425	94	92	96	37	27	36
24	42	124	56	103	154	363	89	107	78	36	25	59
25	42	114	54	86	129	300	99	161	65	42	24	53
26	39	103	52	142	112	283	120	127	65	37	22	45
27	44	103	49	1110	104	440	144	95	46	59	23	37
28	41	106	47	1460	98	651	130	76	42	78	24	34
29	42	101	45	718	---	549	112	62	38	111	21	30
30	34	95	44	558	---	479	105	54	35	215	18	30
31	30	---	43	350	---	414	---	49	---	176	16	---
TOTAL	1497	3547	2537	5897	3624	10356	4802	2313	3163	2404	2036	666.0
MEAN	48.3	118	81.8	190	129	334	160	74.6	105	77.5	65.7	22.2
MAX	118	267	213	1460	300	1150	341	161	267	215	144	59
MIN	12	27	43	36	74	70	88	43	35	32	16	9.2
CFSM	.63	1.54	1.07	2.47	1.68	4.35	2.08	.97	1.37	1.01	.86	.29
IN.	.73	1.72	1.23	2.86	1.76	5.02	2.33	1.12	1.53	1.16	.99	.32

CAL YR 1985 TOTAL 24705.5 MEAN 67.7 MAX 716 MIN 2.1 CFSM .88 IN. 11.97
WTR YR 1986 TOTAL 42842.0 MEAN 117 MAX 1460 MIN 9.2 CFSM 1.52 IN. 20.75

01090800 PISCATAQUOG RIVER BELOW EVERETT DAM, NEAR EAST WEARE, N. H.

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. Elevation of gage is 320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 28 to Mar. 3. Records good except for periods of estimated daily discharges, which are fair. 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, 1979, and 1984. Occasional regulation by small reservoirs upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--23 years, 100 ft^3/s, 21.59 in/yr, adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft^3/s June 12, 1984, gage height, 9.09 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, 987 ft^3/s Mar. 22, gage height, 7.87 ft; minimum daily, 8.1 ft^3/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	43	142	50	657	34	419	142	27	31	83	23
2	32	43	143	47	364	34	403	139	54	44	87	21
3	28	43	149	52	199	112	378	134	59	95	77	17
4	60	43	150	57	171	135	212	92	49	88	65	15
5	94	59	149	59	159	87	137	64	41	72	51	14
6	134	164	149	60	145	76	137	47	43	61	43	14
7	109	301	149	57	125	74	139	41	58	55	46	15
8	85	316	146	52	122	65	142	41	70	48	54	14
9	63	246	144	53	111	66	144	44	68	39	56	13
10	53	163	140	53	105	67	146	39	53	33	49	12
11	49	142	139	51	100	69	149	34	47	27	41	10
12	39	142	135	48	94	80	149	32	73	25	35	10
13	35	142	116	48	90	86	149	31	109	39	29	11
14	39	142	103	46	86	70	149	29	113	54	26	9.8
15	42	142	91	42	86	16	148	27	114	56	23	8.1
16	46	145	93	41	80	19	144	27	111	46	21	11
17	45	146	122	42	76	351	144	27	178	38	21	13
18	39	213	103	44	79	457	140	26	213	33	27	17
19	36	242	80	46	85	98	136	23	188	28	43	18
20	36	242	70	69	83	358	105	21	165	25	44	15
21	37	234	69	107	94	804	80	20	215	26	36	23
22	37	173	61	116	150	947	81	24	202	22	31	31
23	34	143	60	112	157	919	80	25	132	19	25	35
24	46	145	60	96	136	896	79	43	99	18	27	53
25	52	145	59	86	121	836	40	62	76	16	26	50
26	48	146	54	110	103	634	14	51	60	15	21	39
27	45	146	52	35	95	497	15	39	51	18	20	32
28	44	146	53	124	68	351	16	31	45	18	23	27
29	41	146	49	550	---	235	95	26	42	23	23	24
30	39	144	49	792	---	305	144	23	36	74	24	22
31	40	---	48	831	---	394	---	22	---	87	24	---
TOTAL	1563	4687	3127	3976	3941	9172	4314	1426	2791	1273	1201	616.9
MEAN	50.4	156	101	128	141	296	144	46.0	93.0	41.1	38.7	20.6
MAX	134	316	150	831	657	947	419	142	215	95	87	53
MIN	28	43	48	35	68	16	14	20	27	15	20	8.1
MEAN†	49.6	160.8	96.5	145	123.6	310.3	134.3	39	93.3	43.8	35.8	20.4
CFSM†	.79	2.55	1.53	2.30	1.96	4.92	2.13	.62	1.48	.69	.57	.32
IN†	.91	2.84	1.76	2.65	2.04	5.67	2.38	.71	1.65	.80	.65	.36

CAL YR 1985 TOTAL 21804.2 MEAN 59.7 MAX 340 MIN 3.7 MEAN† 59.7 CFSM† .95 IN† 12.84
WTR YR 1986 TOTAL 38087.9 MEAN 104 MAX 947 MIN 8.1 MEAN† 104.2 CFSM† 1.65 IN† 22.43

† Adjusted for change in contents in Everett Lake.

01092000 MERRIMACK RIVER NEAR GOFFS FALLS, BELOW MANCHESTER, N. H.

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 mi².

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 above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 10-21, Mar. 4-10. Records good except for estimated daily discharges, which are fair. 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.--50 years, 5,302 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 102,500 ft³/s Sept. 23, 1938, gage height, 25.87 ft, from rating curve extended above 48,000 ft³/s on basis of computations of flow over dam at gage heights 25.87 ft and 35.19 ft; minimum daily, 98 ft³/s Oct. 11, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1722, 150,000 ft³/s Mar. 20, 1936, gage height, 35.19 ft, from floodmarks, from rating curve extended above 48,000 ft³/s by method explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 22,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 28	2145	*31,700	*11.01	Apr. 1	1930	25,400	9.72
Mar. 20	2245	24,900	9.61				

Minimum daily discharge, 1,060 ft³/s Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3140	2010	3990	2700	20000	4240	25000	5910	3790	1720	7570	1850
2	2550	1340	5160	2600	15100	4350	24500	4930	4190	2340	6520	1940
3	2280	1960	6520	2770	12500	4300	22900	4250	3560	2740	7240	1930
4	2500	1930	8300	2530	11600	3800	20500	4500	3550	3140	7710	2700
5	2670	2640	7360	2860	10100	3500	16000	4460	3400	3450	6290	2370
6	3700	4580	6400	2770	8400	3500	13500	2980	2980	3480	5370	2780
7	4440	8280	5970	3070	7520	3400	12600	3520	3170	3320	3570	2630
8	4500	12200	4870	2770	7400	3200	12500	4250	3570	3290	4960	1950
9	3750	9990	4830	2450	6700	3100	12800	3440	3610	2420	5740	2490
10	2240	7610	4320	2100	6300	3500	12300	3890	3230	2160	6910	1440
11	2210	6750	4420	2720	5700	3860	11500	3320	2600	1930	6630	1600
12	2060	6310	4040	2660	5500	3870	10500	3200	4010	1590	5930	1720
13	2310	5930	3950	2670	5500	4430	9590	3380	6780	2170	5740	1240
14	2250	6070	4020	3380	5400	5780	8490	2120	7670	3100	5030	1300
15	2630	6470	3040	2680	5200	10100	7790	2910	7970	3300	4460	1990
16	4440	9100	3500	2650	5300	13900	7200	2320	6480	3740	3180	1730
17	5200	9930	3960	2700	5400	13900	7260	2160	5900	3240	3120	1240
18	5020	9590	3380	2380	4800	15100	6900	2220	5490	2500	4380	1860
19	3590	9440	2530	2340	4400	16200	6410	2360	6060	1850	4280	1720
20	3630	9480	2760	2690	3800	22700	5930	2390	5450	2160	4110	1060
21	4000	8940	2880	3560	4400	24300	5770	2200	6960	2230	4040	2420
22	3850	8500	2460	5280	5150	22400	5610	3580	6420	1970	3560	1800
23	3890	7670	2950	6100	6530	19200	6280	4520	6070	1620	3160	1790
24	2450	7280	2410	6000	5990	17500	7160	5340	5440	1620	3330	2070
25	2490	6660	3030	4920	5510	16200	6310	6640	4430	1100	2810	2920
26	2700	6010	2870	4930	5040	14400	6210	8570	3550	1310	3480	3480
27	2510	5520	2470	15200	4990	14500	6850	7130	2780	1860	3710	2780
28	2790	5010	2640	28700	4620	18500	8380	5870	2910	1600	3060	2730
29	2150	5160	2710	28700	---	21200	7330	3590	2340	2690	2490	2270
30	2180	5110	2300	26800	---	21600	6540	4680	2290	4500	2870	2260
31	2290	---	2540	24500	---	23300	---	4370	---	7220	2310	---
TOTAL	96410	197470	122580	208180	198850	359830	320610	125000	136650	81360	143560	62060
MEAN	3110	6582	3954	6715	7102	11610	10690	4032	4555	2625	4631	2069
MAX	5200	12200	8300	28700	20000	24300	25000	8570	7970	7220	7710	3480
MIN	2060	1340	2300	2100	3800	3100	5610	2120	2290	1100	2310	1060

CAL YR 1985 TOTAL 1335123 MEAN 3658 MAX 17600 MIN 665
WTR YR 1986 TOTAL 2052560 MEAN 5623 MAX 28700 MIN 1060

01093800 STONY BROOK TRIBUTARY NEAR TEMPLE, N. H.

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. Elevation of gage is 920 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 13 to Dec. 1, Dec. 5 to Jan. 24, Jan. 26, 27, 29, 30, Feb. 18 to Mar. 8, Mar. 11, 12, July 20-28, July 31 to Aug. 11. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--23 years, 7.15 ft^3/s, 26.97 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 greater than base discharge 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. 27	0700	*234	*4.55	Mar. 19	1800	155	4.10

Minimum discharge, 0.49 ft^3/s Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.7	4.2	1.3	13	2.7	13	6.2	1.8	2.2	9.8	1.6
2	2.7	2.5	24	1.3	12	2.7	12	5.7	3.4	6.3	11	1.3
3	2.6	2.5	16	1.3	10	2.6	11	5.2	2.5	5.3	13	.56
4	13	2.5	13	1.3	9.9	2.6	10	5.0	2.2	3.9	8.5	1.4
5	17	15	10	1.3	8.7	2.6	9.6	4.3	2.0	3.2	6.0	2.9
6	10	60	8.0	1.3	7.0	2.6	9.1	3.6	4.8	3.0	4.0	2.8
7	6.0	54	6.0	1.3	6.2	2.6	12	3.6	7.4	2.8	6.4	1.1
8	4.5	25	5.0	1.3	6.0	2.6	11	3.7	6.8	2.4	35	1.2
9	3.5	12	4.5	1.3	5.6	3.0	11	3.8	3.8	2.1	20	1.2
10	3.3	9.0	4.0	1.3	5.2	3.0	10	3.5	2.8	1.8	10	1.1
11	3.0	8.5	3.5	1.3	4.6	3.0	9.2	3.3	2.6	1.7	5.0	1.4
12	3.0	7.4	3.3	1.3	4.3	4.0	8.4	3.2	12	2.4	2.7	1.6
13	6.0	9.0	3.1	1.3	4.3	5.4	7.8	3.1	21	4.4	2.5	.94
14	9.0	15	2.8	1.3	4.2	14	7.5	2.9	12	5.5	2.3	.68
15	17	28	2.6	1.4	3.9	54	6.9	2.8	6.9	3.2	2.5	.97
16	15	11	2.5	1.4	3.6	30	6.8	2.8	4.6	2.5	2.0	1.6
17	9.0	15	2.3	1.5	3.6	24	6.2	2.8	9.1	2.1	5.8	1.1
18	5.4	17	2.2	1.5	3.5	23	5.7	2.6	5.2	1.9	15	1.2
19	10	15	2.1	1.6	3.4	143	5.3	2.3	3.7	1.8	8.1	.91
20	8.0	13	1.9	14	3.3	49	5.0	2.3	19	1.8	5.6	.75
21	7.0	11	1.8	16	3.2	28	5.6	2.5	13	1.6	4.2	1.8
22	5.0	9.8	1.7	4.5	3.1	22	6.6	3.2	8.2	1.5	2.9	2.3
23	4.5	8.0	1.7	3.1	3.0	15	6.7	2.9	6.1	1.4	3.4	7.8
24	3.8	7.0	1.7	4.0	3.0	15	7.0	5.0	4.5	1.3	2.8	6.3
25	3.6	6.0	1.6	5.9	2.9	13	8.0	5.9	3.7	1.2	1.8	3.4
26	3.5	5.4	1.6	35	2.9	19	9.1	3.4	3.3	3.0	2.0	2.9
27	3.4	4.8	1.5	200	2.8	27	11	2.8	3.2	9.4	3.3	1.8
28	3.3	4.7	1.4	33	2.7	25	9.6	2.4	3.0	4.4	.96	2.3
29	2.9	4.5	1.4	28	---	20	8.0	2.1	2.6	9.5	1.8	2.4
30	2.8	4.4	1.4	20	---	18	6.9	1.9	2.4	21	1.9	2.8
31	2.7	---	1.4	17	---	16	---	1.7	---	16	1.6	---
TOTAL	193.6	389.7	138.2	406.1	145.9	594.4	256.0	106.5	183.6	130.6	201.86	60.11
MEAN	6.25	13.0	4.46	13.1	5.21	19.2	8.53	3.44	6.12	4.21	6.51	2.00
MAX	17	60	24	200	13	143	13	6.2	21	21	35	7.8
MIN	2.6	2.5	1.4	1.3	2.7	2.6	5.0	1.7	1.8	1.2	.96	.56
CFSM	1.73	3.61	1.24	3.64	1.45	5.33	2.37	.95	1.70	1.17	1.81	.56
IN.	2.00	4.03	1.43	4.20	1.51	6.14	2.65	1.10	1.90	1.35	2.09	.62

CAL YR 1985 TOTAL 1647.80 MEAN 4.51 MAX 60 MIN .33 CFSM 1.25 IN. 17.04
WTR YR 1986 TOTAL 2806.53 MEAN 7.69 MAX 200 MIN .56 CFSM 2.14 IN. 29.01

RESERVOIRS IN MERRIMACK RIVER BASIN

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

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

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

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

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

01090700 EVERETT LAKE on Piscataquog River, 1.3 mi southeast of East Weare, N. H., completed in 1962, used for flood control and recreation, has usable capacity of 3,768,000,000 ft^3. Records provided by U. S. Army 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, March 1977, March 1979, and June 1984.

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

	Newfound Lake	Franklin Falls Reservoir	Edward MacDowell Reservoir
Sept. 30, 1985	1141	124	0
Oct. 31	1122	120	0
Nov. 30	1266	107	14.4
Dec. 31	1009	120	13.7
Jan. 31, 1986	1424	389	246.6
Feb. 28	998	122	18.3
Mar. 31	1582	778	58.1
Apr. 30	1357	155	12.2
May 31	1530	120	7.3
June 30	1378	93.6	0
July 31	1434	146	11.5
Aug. 31	1253	124	0
Sept. 30	1146	128	9.4

	Blackwater Reservoir	Everett Lake
Sept. 30, 1985	2.0	50.9
Oct. 31	.5	48.7
Nov. 30	1.7	60.5
Dec. 31	.8	48.7
Jan. 31, 1986	178	93.6
Feb. 28	1.0	52.1
Mar. 31	159	90.8
Apr. 30	1.3	66.2
May 31	.9	47.5
June 30	.5	48.1
July 31	14.6	55.5
Aug. 31	.3	47.5
Sept. 30	.3	47.0

01128500 CONNECTICUT RIVER AT FIRST CONNECTICUT LAKE, NEAR PITTSBURG, N. H.

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. Elevation of gage is 1,560 ft above National Geodetic Vertical Datum of 1929, 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.--No estimated daily discharges. 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.--69 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, 546 ft^3/s Dec. 16, gage height, 3.14 ft; minimum daily, 4.9 ft^3/s Mar. 28, Apr. 2-13, 15-18, 21-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251	241	65	444	153	83	5.0	6.8	13	99	132	262
2	251	241	65	439	153	83	4.9	7.1	13	116	132	304
3	251	241	142	435	208	83	4.9	7.4	76	146	132	319
4	250	240	204	428	267	83	4.9	7.4	100	146	132	319
5	250	240	204	424	266	83	4.9	7.4	101	146	132	318
6	250	241	204	301	267	83	4.9	7.4	101	146	132	316
7	250	241	204	146	268	83	4.9	7.4	100	146	132	316
8	250	240	204	146	267	83	4.9	7.0	100	146	132	316
9	250	240	414	144	267	83	4.9	7.2	102	146	132	315
10	250	240	522	141	328	83	4.9	7.4	101	146	132	315
11	249	240	517	140	368	83	4.9	7.2	101	118	173	315
12	249	240	510	140	366	83	4.9	7.0	101	135	208	315
13	249	240	509	140	364	83	4.9	7.4	63	135	207	315
14	249	240	506	140	362	83	5.2	7.4	102	135	207	316
15	248	240	499	140	361	83	4.9	7.4	101	135	207	315
16	248	240	522	142	359	83	4.9	7.4	102	135	207	315
17	248	240	532	140	357	83	4.9	7.4	101	135	207	314
18	246	239	524	140	349	83	4.9	7.4	102	135	207	314
19	246	134	521	140	347	83	5.0	7.5	102	135	207	314
20	246	65	516	133	247	83	5.1	7.7	102	135	207	313
21	246	65	509	134	150	83	4.9	8.0	102	135	207	313
22	246	65	505	134	149	83	4.9	8.0	100	135	207	312
23	245	65	496	134	149	83	4.9	8.7	99	135	206	312
24	243	65	491	134	149	83	4.9	9.6	99	135	207	311
25	243	65	485	134	149	83	5.2	10	99	135	208	311
26	243	65	484	134	149	83	5.6	10	99	135	246	309
27	243	65	478	138	119	34	5.8	10	99	135	262	309
28	242	65	472	140	83	4.9	5.7	12	99	135	262	309
29	241	65	465	142	---	5.1	5.8	13	99	134	262	308
30	241	65	460	143	---	5.4	6.4	13	99	134	262	309
31	241	---	453	152	---	5.4	---	13	---	132	262	---
TOTAL	7655	5173	12682	5962	7021	2212.8	152.8	261.6	2778	4196	5948	9349
MEAN	247	172	409	192	251	71.4	5.09	8.44	92.6	135	192	312
MAX	251	241	532	444	368	83	6.4	13	102	146	262	319
MIN	241	65	65	133	83	4.9	4.9	6.8	13	99	132	262

CAL YR 1985 TOTAL 77897.4 MEAN 213 MAX 532 MIN 6.3
WTR YR 1986 TOTAL 63391.2 MEAN 174 MAX 532 MIN 4.9

01129200 CONNECTICUT RIVER BELOW INDIAN STREAM, NEAR PITTSBURG, N. H.

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. Elevation of gage is 1,150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. 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.--30 years, 565 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, 2,670 ft^3/s Mar. 31, gage height, 5.74 ft; minimum daily, 96 ft^3/s May 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	465	461	495	1040	589	344	1590	114	152	211	121	379
2	472	461	535	1040	566	344	1560	122	251	191	164	370
3	491	461	641	1030	628	341	1010	132	222	182	163	365
4	472	460	713	1030	737	414	680	116	226	176	214	362
5	465	477	832	1020	729	459	551	122	206	175	334	359
6	485	381	923	874	716	456	447	220	196	186	330	366
7	482	329	898	653	699	454	379	285	186	247	331	366
8	467	384	900	649	693	450	384	457	221	248	364	359
9	461	566	1000	644	689	445	475	296	379	153	407	354
10	466	659	1070	642	788	443	442	213	249	153	410	357
11	555	768	1070	636	860	381	358	174	219	152	339	364
12	533	660	1060	632	867	268	331	154	217	152	244	540
13	520	689	1070	628	865	272	300	136	202	146	230	408
14	596	722	1090	626	875	285	294	123	204	164	220	291
15	602	395	1080	637	876	333	374	103	201	259	215	353
16	645	271	1080	630	870	378	437	96	175	225	213	435
17	438	244	1070	516	861	425	469	104	234	248	211	444
18	379	253	1070	450	853	421	422	117	236	287	331	413
19	372	249	1050	450	849	426	368	107	191	284	453	396
20	384	382	1050	464	714	574	324	124	185	278	389	389
21	353	360	1050	573	486	721	310	126	173	303	368	386
22	447	319	1040	741	550	638	300	127	162	332	360	380
23	511	521	1050	750	548	483	231	229	160	330	355	403
24	502	577	1050	674	547	428	189	768	172	327	394	601
25	495	554	1040	651	540	385	173	472	191	325	689	707
26	495	523	1040	676	537	410	180	278	203	327	588	718
27	485	532	1040	1220	453	486	178	195	185	329	490	652
28	483	518	1030	1340	347	589	157	159	395	327	531	618
29	475	504	1030	846	---	703	143	137	288	326	448	599
30	472	506	1040	692	---	1520	132	143	246	242	411	883
31	472	---	1050	620	---	2460	---	134	---	122	392	---
TOTAL	14940	14186	30157	23074	19332	16736	13188	6083	6527	7407	10709	13617
MEAN	482	473	973	744	690	540	440	196	218	239	345	454
MAX	645	768	1090	1340	876	2460	1590	768	395	332	689	883
MIN	353	244	495	450	347	268	132	96	152	122	121	291

CAL YR 1985 TOTAL 201392 MEAN 552 MAX 1630 MIN 75
WTR YR 1986 TOTAL 175956 MEAN 482 MAX 2460 MIN 96

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. Elevation of gage is 1,090 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 13. 1962, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 12 to Jan. 20, Feb. 1-15, Apr. 1-4. Records good except for estimated daily discharges, which are fair.

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

AVERAGE DISCHARGE.--38 years, 170 ft^3/s, 27.16 in/yr. Records were provided by Water Survey of Canada.

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 daily discharge, 3,778 ft^3/s Mar. 30, gage height, unknown; minimum daily, 11 ft^3/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	47	93	41	177	42	1680	62	123	60	20	38
2	38	48	287	40	159	41	1360	59	185	45	48	34
3	50	47	579	39	134	40	1080	54	108	38	42	29
4	59	44	516	37	116	40	837	54	79	44	26	25
5	48	194	385	36	95	39	470	66	65	43	19	24
6	50	318	338	36	86	39	245	124	57	50	14	27
7	50	396	152	34	76	41	360	156	49	42	14	27
8	47	271	140	33	68	42	364	261	178	31	53	22
9	45	283	107	32	66	44	396	164	221	25	273	20
10	50	402	78	31	64	46	328	114	92	23	143	20
11	156	301	69	31	60	48	282	93	78	19	104	126
12	143	212	68	30	58	51	267	83	79	18	64	309
13	151	703	67	29	56	56	262	76	70	18	44	170
14	139	491	66	29	54	62	250	64	70	55	35	104
15	113	296	66	29	53	106	257	57	57	129	26	72
16	236	236	65	30	52	296	270	54	48	56	51	92
17	149	224	64	33	50	275	287	61	131	34	349	94
18	116	297	62	39	50	207	251	68	83	26	883	67
19	150	236	63	42	49	245	215	65	57	21	174	56
20	124	381	61	53	48	696	184	153	44	17	72	51
21	100	248	60	742	47	473	172	133	35	17	61	50
22	89	223	56	678	46	316	170	300	32	14	54	43
23	82	174	55	371	46	222	144	420	28	14	58	95
24	72	158	54	326	45	181	124	540	31	13	56	277
25	67	146	54	338	44	151	104	340	86	11	628	252
26	67	104	55	385	44	219	101	194	58	13	139	146
27	66	112	58	1640	43	720	99	134	94	19	275	105
28	60	99	61	922	43	777	89	112	262	16	119	82
29	57	88	59	646	---	1070	77	96	110	20	136	73
30	53	92	58	424	---	2100	66	98	82	35	63	785
31	51	---	57	277	---	2310	---	80	---	25	46	---
TOTAL	2720	6871	3953	7453	1929	10995	10791	4335	2692	991	4089	3315
MEAN	87.7	229	128	240	68.9	355	360	140	89.7	32.0	132	111
MAX	236	703	579	1640	177	2310	1680	540	262	129	883	785
MIN	38	44	54	29	43	39	66	54	28	11	14	20
CFSM	1.03	2.69	1.51	2.82	.81	4.18	4.24	1.65	1.06	.38	1.55	1.31
IN.	1.19	3.01	1.73	3.26	.84	4.81	4.72	1.90	1.18	.43	1.79	1.45

CAL YR 1985 TOTAL 59833 MEAN 164 MAX 1380 MIN 19 CFSM 1.93 IN. 26.19
WTR YR 1986 TOTAL 60134 MEAN 165 MAX 2310 MIN 11 CFSM 1.94 IN. 26.32

01129500 CONNECTICUT RIVER AT NORTH STRATFORD, N. H.

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 above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 16 to Mar. 28. Records good except for estimated daily discharges, 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.--55 years, 1,580 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, 15,800 ft^3/s Mar. 31, gage height, 10.80 ft; maximum gage height 14.42 ft Jan. 27 (backwater from ice); minimum daily discharge, 360 ft^3/s July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	735	827	1090	1420	2300	820	12200	1010	1010	652	640	884
2	892	824	1500	1410	2000	740	10500	1050	1700	555	1360	821
3	1050	814	1670	1420	1900	720	8220	1040	1250	521	973	769
4	917	807	1310	1430	1850	840	5450	964	1050	540	710	737
5	863	964	1390	1350	1680	780	4040	975	906	542	665	722
6	1030	2410	1560	1200	1630	800	3310	1360	830	562	675	806
7	959	2790	1510	1100	1600	840	2930	1500	754	540	664	772
8	876	2050	1460	1000	1480	820	3080	2060	779	591	895	706
9	825	1690	1450	980	1410	780	3530	1820	1300	462	1730	666
10	828	1880	1540	950	1450	750	3210	1370	1010	386	1660	646
11	1030	2300	1520	980	1490	730	2670	1160	869	370	1230	1030
12	1080	1860	1520	990	1500	660	2410	1040	958	360	979	2180
13	1000	2690	1510	1000	1480	800	2280	940	774	377	751	1680
14	1260	3520	1550	980	1450	810	2240	843	810	550	628	1240
15	1330	2300	1470	950	1420	1000	2490	762	730	933	555	959
16	2100	1570	1500	880	1400	1300	2750	708	632	758	548	1300
17	1410	1460	1490	800	1380	1700	2950	772	950	553	634	1530
18	1110	1660	1480	820	1360	1850	2820	844	987	541	969	1210
19	1040	1690	1470	870	1300	1830	2540	787	749	522	2030	1060
20	1090	2060	1400	810	1200	3000	2230	1280	620	492	1260	990
21	978	1910	1370	1250	1000	3900	2210	1420	545	481	963	1040
22	893	1470	1400	1700	1100	3300	2450	2170	497	519	843	1000
23	995	1390	1470	1600	1000	2600	1940	2720	481	523	778	1020
24	966	1460	1480	1500	950	2000	1590	4370	485	509	1390	2040
25	957	1360	1490	1350	1080	1800	1490	3190	613	502	2460	1770
26	971	1200	1420	1300	1000	1600	1600	2030	659	516	2060	1700
27	932	1260	1450	2800	840	2500	1570	1490	589	887	1760	1440
28	900	1220	1440	6000	800	3800	1380	1210	1030	683	2040	1290
29	872	1160	1420	4300	---	5360	1220	1040	1040	796	1450	1210
30	847	1120	1390	3300	---	9150	1110	997	772	1340	1150	2560
31	848	---	1420	2700	---	14500	---	923	---	891	990	---
TOTAL	31584	49716	45140	49140	39050	72080	98410	43845	25379	18454	35440	35778
MEAN	1019	1657	1456	1585	1395	2325	3280	1414	846	595	1143	1193
MAX	2100	3520	1670	6000	2300	14500	12200	4370	1700	1340	2460	2560
MIN	735	807	1090	800	800	660	1110	708	481	360	548	646

CAL YR 1985 TOTAL 522105 MEAN 1430 MAX 8780 MIN 357
WTR YR 1986 TOTAL 544016 MEAN 1490 MAX 14500 MIN 360

01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, N. H.

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. Elevation of gage is 920 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 3 to Mar. 30. Records good except for estimated daily discharges, which are fair. 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.--44 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 greater than base discharge 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)
Jan. 27	0600	ice jam	*7.12	Mar. 31	1900	*4,920	7.06

Minimum daily discharge, 72 ft^3/s July 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	141	270	115	800	170	4120	583	309	172	324	217
2	194	139	433	115	750	165	3520	599	511	143	603	177
3	178	138	265	110	705	160	3000	539	402	154	568	170
4	159	134	245	110	700	155	2100	455	297	158	355	142
5	161	180	230	105	680	150	1570	445	239	155	247	149
6	258	824	220	105	670	150	1270	558	214	152	190	510
7	224	1300	210	105	700	145	1120	625	197	140	195	372
8	182	883	200	105	640	140	1150	814	253	121	425	237
9	164	587	195	100	550	140	1180	734	346	105	888	178
10	158	564	185	100	500	135	1060	562	237	93	754	145
11	173	708	180	100	450	170	909	467	220	88	493	192
12	171	552	175	99	420	250	812	417	277	88	381	388
13	168	745	170	99	375	350	749	380	242	104	286	307
14	239	1070	165	98	350	500	740	339	239	170	225	220
15	351	839	160	98	330	600	785	310	196	317	191	167
16	809	615	160	98	300	1000	846	289	163	214	200	282
17	500	549	155	97	280	640	922	307	478	148	263	436
18	371	548	155	97	270	350	934	305	427	123	227	312
19	339	554	150	140	255	900	896	270	255	110	257	220
20	318	712	150	350	240	1800	821	310	192	101	205	181
21	263	709	145	560	230	1500	878	350	159	97	231	232
22	228	541	145	720	215	1000	1130	450	141	91	112	290
23	208	474	140	600	205	740	931	557	137	83	102	270
24	195	428	135	500	200	560	726	1170	141	76	316	499
25	191	379	135	450	190	400	695	1010	151	72	520	401
26	191	290	130	600	185	660	963	699	145	72	441	300
27	177	357	125	1900	180	900	1160	498	142	139	649	244
28	163	317	125	1500	175	1400	923	403	207	177	1030	205
29	153	295	120	1250	---	2200	773	340	204	204	546	182
30	146	279	120	1000	---	3100	673	332	218	741	363	450
31	144	---	120	900	---	4700	---	290	---	525	277	---
TOTAL	7406	15851	5513	12326	11545	25230	37356	15407	7339	5133	11864	8075
MEAN	239	528	178	398	412	814	1245	497	245	166	383	269
MAX	809	1300	433	1900	800	4700	4120	1170	511	741	1030	510
MIN	144	134	120	97	175	135	673	270	137	72	102	142
CFSM	1.03	2.28	.77	1.72	1.78	3.51	5.37	2.14	1.06	.72	1.65	1.16
IN.	1.19	2.54	.88	1.98	1.85	4.05	5.99	2.47	1.18	.82	1.90	1.29
(†)	1.90	1.97	3.32	2.44	2.74	3.22	2.63	2.08	2.61	1.83	1.73	2.00
(††)	1.55	1.53	2.48	1.95	2.38	2.26	2.85	2.25	1.90	2.30	1.85	2.37

CAL YR 1985 TOTAL 149148 MEAN 409 MAX 2230 MIN 66 CFSM 1.76 IN. 23.92
WTR YR 1986 TOTAL 163045 MEAN 447 MAX 4700 MIN 72 CFSM 1.93 IN. 26.14

† 1985 Diversion, in cubic feet per second, for municipal supply of Berlin records furnished by City of Berlin.
†† 1986 Diversion, in cubic feet per second, for municipal supply of Berlin records furnished by City of Berlin.

01131500 CONNECTICUT RIVER NEAR DALTON, N. H.

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 above 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.--Estimated daily discharges: Dec. 19, Jan. 7, Feb. 12-22. Records good except for estimated daily discharges, 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.--59 years, 2,901 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, 25,400 ft^3/s Mar. 31, gage height, 19.46 ft; minimum daily, 577 ft^3/s July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1210	1180	1860	1810	4910	1370	23700	2380	1710	1230	1950	1520
2	1130	1080	2030	1800	3710	1190	22600	2360	2830	1170	2810	1510
3	1530	1080	3410	1860	3300	1140	19600	2320	2900	1000	3320	1230
4	1490	1140	1950	1860	3090	1260	15800	1990	2230	1060	2270	1350
5	1150	1100	1800	1750	2700	1110	10700	1920	1820	1030	1570	1190
6	1470	2510	2010	1630	2760	1200	7650	2170	1520	999	1270	1640
7	1360	5230	2310	1700	2630	1300	6530	2670	1390	1050	1310	1950
8	1300	4850	2230	1400	2300	1250	6210	3200	1380	874	1960	1470
9	1470	3710	2180	1410	2240	1150	6610	3850	1570	842	3460	1230
10	1270	3100	2130	1290	2140	1100	6470	3360	1960	648	4370	1130
11	1160	3730	2190	1400	2110	1230	5880	2580	1550	621	3340	1140
12	1470	3700	2210	1440	2100	1280	4940	2190	1570	577	2740	2020
13	1510	3280	2120	1440	2000	1440	4520	1920	1550	623	1900	2720
14	1580	5490	1960	1460	2000	1380	4290	1780	1490	740	1440	2250
15	1870	5550	2040	1320	1900	1630	4500	1500	1310	1410	1300	1670
16	3300	4110	1850	1180	1900	2490	4650	1600	1310	1540	874	1690
17	3460	3110	1950	1240	1800	3390	4980	1700	1800	1170	1160	2660
18	2350	3200	1980	1340	1800	3590	5020	1850	2250	869	1120	2440
19	1870	3320	1900	1360	1800	3540	4670	1550	1720	796	1630	1890
20	1870	3500	1670	1220	1700	5770	4340	1760	1350	737	2400	1620
21	1860	3990	1670	1720	1700	7600	3960	2360	1000	715	1430	1640
22	1680	3270	1860	2760	1650	6970	4720	3010	792	656	1410	1780
23	1380	2710	1900	2900	1600	5540	4650	3980	905	682	1200	1720
24	1460	2560	1900	2580	1360	4570	3930	6080	918	685	1530	2090
25	1390	2380	1940	2040	1700	3740	3140	6910	991	635	2650	3030
26	1390	2100	1720	1910	1560	3210	3320	4950	1100	687	3620	2840
27	1390	1970	1880	6000	1350	5050	3890	3360	1100	803	3030	2570
28	1260	1990	1850	11600	1410	8520	3570	2930	1140	1120	4380	1960
29	1180	1930	1850	12100	---	10300	3150	2200	1490	1560	3500	1880
30	1200	1900	1660	9890	---	13200	2740	1960	1550	3830	2690	2170
31	1200	---	1840	6680	---	20200	---	1770	---	3260	1880	---
TOTAL	49210	88770	61850	90090	61220	126710	210730	84160	46196	33619	69514	56000
MEAN	1587	2959	1995	2906	2186	4087	7024	2715	1540	1084	2242	1867
MAX	3460	5550	3410	12100	4910	20200	23700	6910	2900	3830	4380	3030
MIN	1130	1080	1660	1180	1350	1100	2740	1500	792	577	874	1130

CAL YR 1985 TOTAL 897324 MEAN 2458 MAX 11900 MIN 489
WTR YR 1986 TOTAL 978069 MEAN 2680 MAX 23700 MIN 577

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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 4 to Jan. 20, Jan. 25-27, Feb. 1-3, 6-20, Mar. 11-15. Records good except for estimated daily discharges, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--39 years, 144 ft^3/s, 26.00 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 greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 28	0500	1,610	8.58	July 30	1130	2,000	9.16
Mar. 31	1800	*2,350	*9.66				

Minimum discharge, 5.8 ft^3/s Aug. 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	28	67	44	330	54	1580	119	101	44	211	97
2	28	28	166	42	260	53	1440	135	169	34	430	82
3	44	27	236	43	210	51	1130	121	112	42	401	71
4	34	26	155	44	170	50	773	105	87	59	202	68
5	31	45	140	44	152	50	535	107	71	50	129	66
6	76	268	125	45	140	51	427	135	66	51	95	240
7	52	339	105	44	125	52	354	150	61	42	87	149
8	38	250	88	44	115	53	393	255	65	30	216	97
9	33	154	70	43	105	52	467	242	108	23	516	76
10	34	166	60	43	98	52	413	157	63	19	646	65
11	38	231	58	43	94	54	336	124	65	16	336	86
12	36	162	60	43	90	60	292	110	100	16	185	148
13	51	197	58	42	84	74	271	98	94	28	125	113
14	128	307	58	42	80	66	267	87	87	65	96	85
15	115	247	56	42	78	120	313	78	62	211	80	69
16	261	164	58	43	76	440	353	74	49	85	79	161
17	129	152	56	43	76	377	389	87	157	48	77	246
18	78	183	58	43	74	308	381	89	110	34	64	135
19	74	186	60	45	72	285	346	88	67	27	61	104
20	85	249	56	64	70	560	293	259	51	22	54	92
21	64	240	52	216	68	697	319	283	40	21	47	110
22	54	162	48	247	64	594	435	599	35	19	56	114
23	47	137	47	206	62	411	325	558	33	16	50	113
24	42	118	47	160	60	283	223	495	47	14	262	297
25	41	97	46	150	59	193	202	366	44	12	331	188
26	40	90	48	140	58	170	223	223	38	12	208	133
27	37	86	46	500	58	301	211	163	33	36	266	111
28	34	78	45	1450	56	548	175	133	55	32	557	94
29	31	73	45	917	---	666	150	107	43	110	271	87
30	29	70	44	586	---	1100	132	110	60	1440	156	150
31	29	---	44	430	---	2120	---	95	---	693	119	---
TOTAL	1840	4560	2302	5888	2984	9945	13148	5752	2173	3351	6413	3647
MEAN	59.4	152	74.3	190	107	321	438	186	72.4	108	207	122
MAX	261	339	236	1450	330	2120	1580	599	169	1440	646	297
MIN	27	26	44	42	56	50	132	74	33	12	47	65
CFSM	.79	2.02	.99	2.53	1.42	4.27	5.82	2.47	.96	1.44	2.75	1.62
IN.	.91	2.26	1.14	2.91	1.48	4.92	6.50	2.85	1.07	1.66	3.17	1.80

CAL YR 1985 TOTAL 41950.0 MEAN 115 MAX 1140 MIN 5.9 CFSM 1.53 IN. 20.75
WTR YR 1986 TOTAL 62003 MEAN 170 MAX 2120 MIN 12 CFSM 2.26 IN. 30.67

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 mi².

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. Elevation of gage is 490 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 4 to Jan. 21, Feb. 2 to Mar. 15. Records good except for estimated daily discharges, which are fair. Low flow regulated by powerplants upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--58 years, 743 ft³/s, 23.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,200 ft³/s July 1, 1973, gage height, 23.49 ft, from rating curve extended above 14,000 ft³/s on basis of computation of flow over dam at gage height 21.23 ft; minimum daily, 13 ft³/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 greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 27	2000	6,780	11.23	Mar. 31	0615	7,850	12.42
Mar. 29	1630	*8,030	*12.62				

Minimum daily discharge, 121 ft³/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	204	423	260	1800	290	6250	711	671	308	716	394
2	210	197	886	260	1500	285	6000	745	1010	256	1480	336
3	325	194	1010	255	1300	280	4700	735	710	287	1100	299
4	228	189	700	245	1150	280	3410	645	571	337	726	280
5	235	274	540	235	1000	278	2640	652	488	316	509	280
6	501	1130	450	230	840	275	2260	754	454	328	389	720
7	380	1680	410	230	750	275	2170	848	420	300	367	571
8	268	1110	370	225	700	270	2440	1200	429	229	743	384
9	220	749	360	225	640	270	2580	1230	752	210	1580	308
10	253	821	350	220	600	280	2210	867	506	182	1640	264
11	243	1020	340	218	560	300	1890	714	479	160	1060	329
12	230	757	335	218	540	320	1760	644	700	180	703	746
13	298	889	330	216	520	400	1680	568	700	274	472	569
14	600	1360	325	216	490	500	1610	503	600	388	393	408
15	665	1320	320	215	470	1300	1730	464	474	952	325	352
16	1090	844	310	215	440	3590	1810	442	371	512	304	714
17	623	819	300	210	430	2850	1860	495	1020	324	310	1050
18	419	991	290	210	425	2230	1760	515	771	244	290	629
19	380	1010	285	230	420	2460	1610	496	506	201	314	469
20	403	1110	280	370	415	4700	1430	987	356	193	293	416
21	341	1060	275	900	410	3480	1440	1150	324	198	249	577
22	296	810	270	1150	390	2750	1820	2840	268	166	246	566
23	270	707	280	869	370	2300	1470	2610	276	154	254	497
24	253	640	285	635	340	1940	1180	2400	346	148	1000	992
25	253	585	285	613	320	1500	1070	1580	350	170	1060	722
26	252	396	280	694	310	1660	1090	1140	305	121	771	540
27	248	516	275	4120	300	3740	1070	880	280	285	1090	466
28	223	488	275	6050	295	5400	924	726	353	318	1660	403
29	203	454	270	3860	---	6720	834	634	337	546	965	378
30	207	452	270	2890	---	5120	764	648	348	2130	614	773
31	189	---	265	2360	---	7570	---	586	---	1580	456	---
TOTAL	10504	22776	11644	28844	17725	63613	63462	29409	15175	11997	22079	15432
MEAN	339	759	376	930	633	2052	2115	949	506	387	712	514
MAX	1090	1680	1010	6050	1800	7570	6250	2840	1020	2130	1660	1050
MIN	189	189	265	210	295	270	764	442	268	121	246	264
CFSM	.78	1.74	.86	2.13	1.45	4.71	4.85	2.18	1.16	.89	1.63	1.18
IN.	.90	1.94	.99	2.46	1.51	5.43	5.41	2.51	1.29	1.02	1.88	1.32

CAL YR 1985 TOTAL 229747 MEAN 629 MAX 3940 MIN 76 CFSM 1.44 IN. 19.60
WTR YR 1986 TOTAL 312660 MEAN 857 MAX 7570 MIN 121 CFSM 1.97 IN. 26.68

01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, N. H.

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 mi².

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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 5 to Jan. 26, Feb. 2-15. Records good except for estimated daily discharges, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--47 years, 208 ft³/s, 32.24 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s Oct. 24, 1959, gage height, 12.09 ft, from rating curve extended above 4,100 ft³/s on basis of slope-area measurement of peak flow; minimum, 16 ft³/s Nov. 14, 1952; caused by anchor ice upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 27	1100	*7,520	*10.14	No other peak greater than base discharge.			

Minimum daily discharge, 44 ft³/s Jan. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	73	103	54	173	65	787	283	159	76	120	80
2	120	71	268	54	145	64	886	293	276	74	295	77
3	111	70	200	52	130	63	576	222	196	91	170	71
4	102	67	115	52	120	62	403	187	156	134	120	70
5	111	85	105	50	110	61	323	176	133	100	90	68
6	211	466	110	50	105	60	280	185	127	101	75	106
7	133	630	100	50	98	60	301	220	119	90	90	84
8	109	320	98	48	92	55	326	372	115	76	127	71
9	97	219	90	48	96	58	301	268	110	69	126	65
10	92	210	84	47	105	57	257	205	96	65	192	61
11	90	206	82	47	110	77	225	183	121	63	123	59
12	83	172	80	46	120	121	203	168	148	63	101	60
13	109	227	82	46	102	73	184	154	153	82	86	61
14	146	363	80	45	98	75	181	142	128	85	78	56
15	170	496	74	45	92	255	202	132	106	197	72	54
16	344	262	78	45	90	213	233	128	93	110	71	95
17	176	232	74	45	93	131	266	139	320	84	72	124
18	137	220	72	44	84	117	275	142	178	74	67	96
19	155	206	72	44	83	449	262	143	129	68	66	78
20	163	306	72	150	81	733	250	154	109	64	64	72
21	129	269	70	250	77	270	338	194	97	65	60	82
22	115	202	68	140	78	188	618	442	88	62	61	84
23	106	178	66	130	78	165	344	274	87	57	57	84
24	98	160	64	200	76	142	249	501	94	55	94	150
25	107	137	60	180	73	124	293	894	111	52	205	109
26	104	118	60	500	69	182	851	376	97	50	157	90
27	92	132	60	4850	71	653	643	259	86	70	131	80
28	87	120	62	1450	67	602	455	210	90	75	157	74
29	82	111	60	440	---	705	397	178	96	110	116	73
30	78	106	58	310	---	1370	353	170	89	210	98	312
31	76	---	56	242	---	1250	---	148	---	115	87	---
TOTAL	3871	6434	2723	9754	2716	8500	11262	7542	3907	2687	3428	2646
MEAN	125	214	87.8	315	97.0	274	375	243	130	86.7	111	88.2
MAX	344	630	268	4850	173	1370	886	894	320	210	295	312
MIN	76	67	56	44	67	55	181	128	86	50	57	54
CFSM	1.43	2.44	1.00	3.60	1.11	3.13	4.28	2.77	1.48	.99	1.27	1.01
IN.	1.64	2.73	1.16	4.14	1.15	3.61	4.78	3.20	1.66	1.14	1.46	1.12

CAL YR 1985 TOTAL 59998 MEAN 164 MAX 1020 MIN 34 CFSM 1.87 IN. 25.48
WTR YR 1986 TOTAL 65470 MEAN 179 MAX 4850 MIN 44 CFSM 2.04 IN. 27.80

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 above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 14-26. Records 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.--37 years, 4,803 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.--Peak discharges above base of 23,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 27	1930	*33,000	*10.74	Apr. 1	0030	31,700	10.38

Minimum daily discharge, 985 ft^3/s July 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1640	2870	3150	2660	9180	3890	29900	5040	2660	3040	4210	2480
2	2430	1980	5230	3880	9030	2880	28700	5400	5710	3940	5130	3190
3	2310	1800	6700	4500	7810	4030	25200	4570	5630	3080	4870	3650
4	2070	2140	5670	3320	6330	3480	20600	3590	5170	1720	5190	3410
5	2390	2190	4560	2670	6750	3320	18700	3870	5460	985	3450	3420
6	2350	4580	4140	3400	5850	3480	13900	4400	4390	1520	3490	3730
7	2940	7430	4540	4930	5530	3920	12000	5030	3110	4140	4300	3480
8	3140	7100	3180	5110	4680	3400	12600	6530	1570	4260	6430	2920
9	3540	7040	4360	4290	3670	1270	12600	7510	3550	3370	4960	3310
10	2850	6340	4800	3520	4670	4050	10700	7340	4010	1970	7240	3370
11	2300	4780	3950	1290	4500	4630	10800	5540	3770	1390	7910	3470
12	1440	5820	5100	1220	5040	4370	9640	6120	3310	2250	6990	3900
13	1990	6410	5660	2910	4340	4460	8880	5450	3130	1800	5660	3530
14	3890	8250	3350	4500	4550	5980	7080	3620	2600	2680	4460	2000
15	3580	11800	3870	3500	3830	6460	7360	4040	2180	2930	3810	2830
16	6060	10900	3320	3800	2030	5200	8570	3820	3300	2960	2860	2980
17	6190	8300	4680	3400	4920	6340	10100	1460	4800	3020	1410	3930
18	5660	5670	4050	2100	4760	6680	8650	1220	4610	3120	3020	4020
19	6040	6420	4430	2000	4190	7870	6970	3980	3960	1910	3710	3380
20	3290	6460	4990	2900	4160	12300	4940	4140	3460	1950	3530	3050
21	4030	6830	4170	3200	3690	13500	5980	4650	2280	2040	3240	2090
22	4400	7100	2690	3100	2990	9960	7670	7280	1340	2560	2290	3700
23	3860	6390	4030	3600	1250	9290	7730	8900	2600	2060	2140	3700
24	3620	4460	4270	3400	4050	10200	6930	12300	2740	2430	1890	4130
25	4510	4120	3380	2700	4550	11000	5740	12800	2810	2050	3940	3890
26	3150	4420	3710	2900	3890	11200	7120	9140	3010	1110	4400	4210
27	1110	4970	3980	21900	4120	14200	6780	5480	2660	1830	4960	4000
28	2220	3940	3420	17300	4570	17100	6850	5830	3250	2790	6150	3380
29	2230	3700	2260	15300	---	19300	5960	4000	1160	4830	6390	3770
30	2110	3800	3110	14300	---	24400	5560	4590	2630	5420	4990	5170
31	2790	---	3170	11900	---	29000	---	3860	---	5720	3220	---
TOTAL	100130	168010	127920	165500	134930	267160	334210	171500	100860	84875	136240	104090
MEAN	3230	5600	4126	5339	4819	8618	11140	5532	3362	2738	4395	3470
MAX	6190	11800	6700	21900	9180	29000	29900	12800	5710	5720	7910	5170
MIN	1110	1800	2260	1220	1250	1270	4940	1220	1160	985	1410	2000

CAL YR 1985 TOTAL 1837722 MEAN 5035 MAX 16300 MIN 534
WTR YR 1986 TOTAL 1895425 MEAN 5193 MAX 29900 MIN 985

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 TEMPERATURES: October 1979 to September 1982.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT										
17...	1200	6130	72	--	--	14.0	--	--	--	--
DEC										
10...	0810	4350	85	--	--	0.0	--	--	--	--
17...	1400	4330	82	7.74	-3.0	1.5	21	1.1	22.8	165
JAN										
15...	0850	3960	25	--	--	0.0	--	--	--	--
FEB										
24...	0825	1940	110	--	--	0.0	--	--	--	--
MAR										
26...	1300	12500	84	7.56	16.0	1.5	19	1.6	15.0	108
31...	1130	26700	60	--	--	2.5	--	--	--	--
MAY										
21...	1230	5650	105	--	--	17.0	--	--	--	--
JUN										
24...	0805	1390	125	--	--	19.5	--	--	--	--
JUL										
15...	1015	2950	104	7.43	27.0	17.5	28	1.5	9.0	--
AUG										
13...	0935	2740	78	--	--	29.5	--	--	--	--

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT										
17...	--	--	--	--	--	--	--	--	--	--
DEC										
10...	--	--	--	--	--	--	--	--	--	--
17...	34	45	9.8	1.3	3.6	0.90	11	5.1	<1.0	6.7
JAN										
15...	--	--	--	--	--	--	--	--	--	--
FEB										
24...	--	--	--	--	--	--	--	--	--	--
MAR										
26...	11	4	8.6	1.2	4.3	1.0	10	5.6	0.10	7.2
31...	--	--	--	--	--	--	--	--	--	--
MAY										
21...	--	--	--	--	--	--	--	--	--	--
JUN										
24...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	53	30	12	1.3	5.2	1.2	8.7	7.0	<0.10	5.9
AUG										
13...	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	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 TOTAL (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, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
OCT										
17...	--	--	--	--	--	--	--	--	--	--
DEC										
10...	--	--	--	--	--	--	--	--	--	--
17...	55	52	0.260	0.060	0.050	0.06	0.40	<0.010	<0.010	<0.010
JAN										
15...	--	--	--	--	--	--	--	--	--	--
FEB										
24...	--	--	--	--	--	--	--	--	--	--
MAR										
26...	50	50	0.400	0.080	0.080	0.10	0.40	0.021	<0.010	<0.010
31...	--	--	--	--	--	--	--	--	--	--
MAY										
21...	--	--	--	--	--	--	--	--	--	--
JUN										
24...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	63	58	0.170	0.300	0.041	0.05	0.40	0.010	<0.010	<0.010
AUG										
13...	--	--	--	--	--	--	--	--	--	--

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT										
17...	--	--	--	--	--	--	--	--	--	--
DEC										
10...	--	--	--	--	--	--	--	--	--	--
17...	50	<1	9	<0.5	<1	<1	<3	1	91	1
JAN										
15...	--	--	--	--	--	--	--	--	--	--
FEB										
24...	--	--	--	--	--	--	--	--	--	--
MAR										
26...	50	<1	13	<0.5	<1	<1	<3	4	93	3
31...	--	--	--	--	--	--	--	--	--	--
MAY										
21...	--	--	--	--	--	--	--	--	--	--
JUN										
24...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	30	<1	13	<0.5	<1	<1	<3	10	65	5
AUG										
13...	--	--	--	--	--	--	--	--	--	--

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
17...	--	--	--	--	--	--	--	--	--	--
DEC										
10...	--	--	--	--	--	--	--	--	--	--
17...	<4	15	<0.1	<10	<1	0	<1	50	<6	5
JAN										
15...	--	--	--	--	--	--	--	--	--	--
FEB										
24...	--	--	--	--	--	--	--	--	--	--
MAR										
26...	<4	25	<0.1	<10	<1	<1	<1	44	<6	16
31...	--	--	--	--	--	--	--	--	--	--
MAY										
21...	--	--	--	--	--	--	--	--	--	--
JUN										
24...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	<4	14	0.1	<10	8	<1	<1	62	<6	31
AUG										
13...	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

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 above National Geodetic Vertical Datum of 1929 (levels by Connecticut River Power Co.).

REMARKS.--Estimated daily discharges: Dec. 11 to Jan. 26, Feb. 1 to Mar. 15. Records good except for estimated daily discharges, which are fair. Some diurnal fluctuation at low flow prior to 1958 and since June 1984 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.--46 years, 144 ft^3/s, 19.87 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 greater than base discharge of 980 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 27	2100	1,110	4.65	July 29	0500	1,140	4.70
Mar. 31	0030	*1,490	*5.23	Aug. 7	2400	1,210	4.81

Minimum discharge, 26 ft^3/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	59	105	60	250	80	1150	141	108	64	146	64
2	72	59	229	59	220	78	1190	149	257	66	315	59
3	67	58	210	57	200	77	937	141	148	87	180	56
4	56	57	133	56	190	76	695	132	115	88	126	53
5	70	80	131	54	180	75	546	131	98	84	96	53
6	126	226	124	53	170	74	478	140	93	139	79	78
7	79	287	116	52	165	72	518	147	92	116	283	67
8	63	209	112	52	160	65	605	193	93	85	580	59
9	56	173	109	53	155	62	562	209	94	71	261	54
10	52	179	102	54	150	59	470	161	77	57	193	51
11	50	175	96	54	145	64	421	140	138	50	139	53
12	44	143	92	53	140	70	399	127	214	46	108	62
13	85	155	88	53	135	80	382	117	241	75	93	63
14	121	199	86	52	130	90	366	107	171	87	79	54
15	158	448	85	51	125	360	355	99	127	123	71	50
16	280	278	84	43	125	538	342	96	97	89	71	120
17	128	233	83	44	120	336	324	111	350	72	74	106
18	94	240	82	47	120	279	301	103	208	62	78	80
19	119	232	80	64	115	355	277	101	146	53	84	71
20	118	219	79	130	110	569	256	188	113	47	70	68
21	88	187	77	350	110	407	234	181	96	47	63	97
22	80	158	76	270	110	318	291	439	83	42	65	88
23	73	151	74	200	105	259	249	309	76	36	59	91
24	71	155	73	150	105	220	218	352	77	35	152	141
25	79	146	72	220	98	190	198	253	98	31	124	102
26	81	114	70	300	96	222	213	174	78	36	96	85
27	75	125	69	805	92	519	207	140	69	109	123	75
28	71	114	68	669	86	607	181	118	72	93	126	68
29	67	109	66	438	---	723	162	102	69	617	94	65
30	62	106	64	365	---	1110	153	103	74	441	80	144
31	61	---	62	308	---	1380	---	92	---	214	71	---
TOTAL	2728	5074	2997	5216	3907	9414	12680	4996	3772	3262	4179	2277
MEAN	88.0	169	96.7	168	140	304	423	161	126	105	135	75.9
MAX	280	448	229	805	250	1380	1190	439	350	617	580	144
MIN	44	57	62	43	86	59	153	92	69	31	59	50
CFSM	.89	1.72	.98	1.71	1.42	3.09	4.30	1.64	1.28	1.07	1.37	.77
IN.	1.03	1.92	1.13	1.97	1.48	3.56	4.79	1.89	1.43	1.23	1.58	.86

CAL YR 1985 TOTAL 50201 MEAN 138 MAX 1230 MIN 19 CFSM 1.40 IN. 18.98
WTR YR 1986 TOTAL 60502 MEAN 166 MAX 1380 MIN 31 CFSM 1.69 IN. 22.87

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. Elevation of gage is 1,180 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 26, Dec. 3-6, Dec. 12 to Mar. 15. Records fair except for estimated daily discharges, which are 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.--28 years, 15.9 ft^3/s, 24.13 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 151 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.--Peak discharges greater than base discharge of 140 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 15	1645	*237	*4.62	No other peak greater than base discharge.			

Minimum discharge, 3.1 ft^3/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	8.5	16	7.9	15	6.7	63	24	30	6.8	7.1	7.1
2	7.9	8.5	29	7.8	14	6.6	63	23	29	13	7.2	6.5
3	6.8	8.3	23	7.6	12	6.6	60	21	21	10	5.1	6.5
4	6.4	8.0	21	7.6	11	6.5	58	20	17	8.6	4.2	6.7
5	14	17	19	7.4	11	6.8	57	20	15	23	3.9	7.6
6	11	33	18	7.6	10	6.7	55	19	16	17	3.7	11
7	8.3	23	17	7.4	10	6.6	58	23	15	11	24	6.9
8	7.4	17	16	7.2	9.9	6.5	58	27	16	7.7	23	6.1
9	6.9	17	15	7.5	9.8	6.4	54	22	12	6.3	25	5.6
10	6.8	22	14	7.3	9.6	6.5	51	17	11	5.7	14	5.7
11	6.5	19	14	7.0	9.4	6.8	49	17	25	5.3	9.8	6.8
12	6.2	17	13	6.6	9.2	7.0	47	15	30	8.9	8.0	7.4
13	19	20	13	6.7	9.0	7.2	46	13	26	9.9	7.0	6.5
14	12	29	12	6.8	8.4	8.2	47	12	17	24	6.4	5.7
15	30	27	12	6.8	8.0	70	47	11	13	13	6.0	5.2
16	15	21	12	7.0	7.6	30	45	13	14	8.1	6.9	23
17	9.7	22	11	7.2	7.4	15	43	14	30	6.7	7.8	8.9
18	8.9	24	11	7.1	7.3	14	41	11	15	6.0	19	6.9
19	22	23	11	7.0	7.4	35	39	21	13	5.2	12	6.2
20	12	22	10	45	7.2	31	38	23	11	5.2	8.9	7.5
21	9.5	20	10	27	7.2	40	41	34	9.9	5.3	7.9	12
22	8.9	19	10	12	7.1	35	40	36	9.0	4.3	9.9	7.4
23	8.5	20	9.8	10	7.1	22	35	38	14	3.9	9.9	16
24	8.6	19	9.4	10	7.0	14	33	30	15	3.7	21	12
25	12	19	9.4	9.6	7.0	23	32	24	14	3.4	17	7.7
26	9.3	19	9.3	50	6.9	21	34	20	9.6	4.2	10	6.8
27	8.9	18	9.2	62	6.8	39	30	17	9.2	7.0	19	6.2
28	8.4	18	9.0	29	6.7	37	28	16	8.7	5.7	11	5.8
29	8.6	17	8.6	25	---	46	26	16	8.1	17	9.5	8.7
30	8.8	16	8.2	20	---	57	25	24	8.8	16	8.4	13
31	8.7	---	8.0	18	---	61	---	17	---	11	7.6	---
TOTAL	323.7	571.3	407.9	455.1	249.0	685.1	1343	638	482.3	282.9	340.2	249.4
MEAN	10.4	19.0	13.2	14.7	8.89	22.1	44.8	20.6	16.1	9.13	11.0	8.31
MAX	30	33	29	62	15	70	63	38	30	24	25	23
MIN	6.2	8.0	8.0	6.6	6.7	6.4	25	11	8.1	3.4	3.7	5.2
CFSM	1.16	2.12	1.47	1.64	.99	2.47	5.01	2.30	1.80	1.02	1.23	.93
IN.	1.35	2.37	1.70	1.89	1.03	2.85	5.58	2.65	2.00	1.18	1.41	1.04

CAL YR 1985 TOTAL 5102.3 MEAN 14.0 MAX 66 MIN 1.8 CFSM 1.56 IN. 21.21
WTR YR 1986 TOTAL 6027.9 MEAN 16.5 MAX 70 MIN 3.4 CFSM 1.84 IN. 25.05

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. Elevation of gage is 435 ft, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 14, 15, Dec. 19 to Jan. 21. Records good except those for estimated daily discharges, which are fair. 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.--46 years, 195 ft^3/s, 20.37 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, 1,950 ft^3/s Mar. 31, gage height, 7.43 ft; minimum, 30 ft^3/s July 26; minimum daily, 32 ft^3/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	82	181	98	244	126	1780	198	172	55	267	84
2	59	80	319	96	228	115	1750	185	279	64	271	77
3	60	76	298	94	223	121	1600	171	184	86	199	72
4	52	74	165	92	275	128	1100	161	152	74	157	70
5	58	138	221	90	327	110	817	166	133	97	126	72
6	89	465	221	88	361	103	708	183	125	164	104	115
7	64	453	192	85	409	113	786	190	119	104	138	84
8	54	311	186	82	400	174	831	225	120	76	216	71
9	49	262	170	80	392	130	739	222	108	61	294	64
10	46	279	150	78	374	97	643	179	88	52	212	58
11	43	260	161	76	356	114	590	161	118	46	158	57
12	40	230	165	74	339	128	554	149	203	54	127	61
13	110	241	130	72	296	127	509	138	276	113	104	77
14	130	290	122	72	248	135	479	124	185	112	87	59
15	243	543	110	70	183	185	456	113	143	108	77	53
16	372	297	110	74	164	266	431	107	118	72	84	168
17	201	333	141	82	157	358	402	162	247	59	80	127
18	160	398	164	92	135	471	374	132	158	52	93	90
19	305	398	135	100	132	792	348	111	130	47	252	78
20	259	382	130	130	138	1310	326	122	113	46	143	73
21	187	305	130	270	138	995	319	167	96	55	115	102
22	160	290	140	372	156	565	369	425	81	44	107	89
23	145	284	135	229	144	512	309	458	81	39	92	121
24	131	246	130	174	135	484	282	435	84	35	284	182
25	147	234	125	169	142	393	263	358	77	32	194	122
26	129	199	120	237	185	428	311	281	68	45	149	98
27	115	187	115	588	219	871	289	234	63	177	184	87
28	102	189	110	569	144	1170	257	192	63	118	168	78
29	95	188	105	293	---	1240	236	160	58	189	129	81
30	90	185	105	264	---	1520	214	218	68	367	110	104
31	87	---	100	243	---	1880	---	167	---	389	95	---
TOTAL	3846	7899	4786	5133	6644	15161	18072	6294	3910	3032	4816	2674
MEAN	124	263	154	166	237	489	602	203	130	97.8	155	89.1
MAX	372	543	319	588	409	1880	1780	458	279	389	294	182
MIN	40	74	100	70	132	97	214	107	58	32	77	53
MEAN†	124	269	155	215	183	507	576	203	130	97.8	155	89.2
CFSM†	.95	2.07	1.19	1.65	1.41	3.92	4.43	1.56	1.00	.75	1.19	.69
IN†	1.10	2.31	1.38	1.90	1.47	4.51	4.95	1.80	1.12	.87	1.37	.77

CAL YR 1985 TOTAL 54810 MEAN 150 MAX 866 MIN 15 MEAN† 149 CFSM† 1.15 IN† 15.57
WTR YR 1986 TOTAL 82267 MEAN 225 MAX 1880 MIN 32 MEAN† 225 CFSM† 1.73 IN† 23.54

† Adjusted for change in Union Village Reservoir.

01141800 MINK BROOK NEAR ETNA, N. H.

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. Elevation of gage is 1,000 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 25 to Feb. 15, Feb. 26, 28, Mar. 8, 9, 11, 12, 15-23. Records good except for estimated daily discharges, which are fair and those below 0.5 ft^3/s, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--24 years, 7.56 ft^3/s, 22.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 629 ft^3/s Aug. 1, 1986, gage height, 3.93 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 greater than base discharge of 75 ft^3/s revised, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 27	1645	322	3.26	Aug. 1	2230	a*629	*3.93
Mar. 30	1800	189	2.88				

a From rating curve extended above 130 ft^3/s.

Minimum discharge, 0.75 ft^3/s Oct. 11-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.0	5.2	2.6	20	3.4	69	4.6	4.9	.88	53	1.4
2	1.1	1.9	12	2.6	13	3.2	54	3.9	9.5	1.8	75	1.2
3	1.1	1.9	13	2.6	10	3.0	33	3.6	4.3	1.7	27	1.1
4	1.1	1.9	9.0	2.6	9.0	2.9	25	3.6	3.4	1.4	14	1.1
5	1.9	8.9	7.0	2.7	8.0	2.9	19	4.5	3.1	10	9.5	1.6
6	2.2	34	6.0	2.7	7.5	2.9	17	4.6	3.2	6.5	7.2	2.7
7	1.4	22	5.5	2.7	7.0	2.9	26	4.9	3.0	3.4	12	1.7
8	1.2	12	5.2	2.7	6.4	3.0	23	5.9	2.9	2.1	11	1.3
9	1.2	8.8	5.0	2.7	6.0	3.0	18	4.8	2.4	1.6	15	1.1
10	1.1	8.6	4.7	2.7	5.5	2.9	16	3.9	1.7	1.1	11	.99
11	.83	9.2	4.5	2.6	5.2	3.3	15	3.5	6.8	.99	7.3	.99
12	.75	8.6	4.3	2.5	4.8	3.3	14	3.2	14	5.8	5.2	2.2
13	6.2	12	4.2	2.5	4.6	3.4	11	3.1	12	7.0	4.2	1.8
14	4.2	23	4.0	2.3	4.4	4.9	10	2.7	6.6	5.7	3.6	1.1
15	16	26	3.8	2.2	4.2	12	9.1	2.4	4.1	4.0	3.2	.94
16	9.2	15	3.7	2.1	3.9	20	8.0	2.7	3.5	2.6	4.6	8.5
17	4.9	19	3.5	2.0	3.6	22	7.3	4.1	10	1.9	3.9	3.3
18	3.6	19	3.2	2.0	3.6	14	6.7	2.7	4.4	1.6	3.7	2.2
19	13	18	2.9	3.0	3.6	28	6.2	2.3	3.5	1.3	3.4	1.9
20	8.0	16	3.0	5.0	3.6	47	5.7	2.5	3.5	2.8	2.8	1.8
21	5.1	12	3.2	12	4.0	37	6.4	6.9	2.7	3.9	2.5	3.8
22	4.1	10	3.0	13	3.7	28	8.1	8.6	2.2	2.0	2.5	2.5
23	3.4	9.7	3.0	8.0	3.6	21	5.9	14	2.3	1.6	2.5	11
24	3.0	8.7	3.0	7.0	3.6	14	5.1	16	2.1	1.3	5.0	7.6
25	3.9	7.9	2.9	5.6	3.6	16	5.4	9.3	1.9	1.1	2.9	4.0
26	3.1	7.5	2.8	25	3.6	36	11	5.7	1.6	3.1	2.3	3.0
27	3.0	6.6	2.7	170	3.5	76	6.9	4.0	1.7	4.3	3.1	2.6
28	2.5	6.0	2.7	80	3.5	69	5.6	3.5	1.6	2.9	2.3	2.5
29	2.1	5.5	2.6	65	---	90	4.9	2.7	1.2	4.7	1.8	5.3
30	2.1	5.2	2.6	40	---	124	4.5	4.2	1.0	14	1.6	5.2
31	2.1	---	2.6	30	---	100	---	3.0	---	11	1.4	---
TOTAL	114.68	346.9	140.8	508.4	163.0	799.0	456.8	151.4	125.1	114.07	304.5	86.42
MEAN	3.70	11.6	4.54	16.4	5.82	25.8	15.2	4.88	4.17	3.68	9.82	2.88
MAX	16	34	13	170	20	124	69	16	14	14	75	11
MIN	.75	1.9	2.6	2.0	3.5	2.9	4.5	2.3	1.0	.88	1.4	.94
CFSM	.80	2.52	.99	3.57	1.27	5.61	3.30	1.06	.91	.80	2.13	.63
IN.	.93	2.81	1.14	4.11	1.32	6.46	3.69	1.22	1.01	.92	2.46	.70

CAL YR 1985 TOTAL 2103.97 MEAN 5.76 MAX 69 MIN .02 CFSM 1.25 IN. 17.01
WTR YR 1986 TOTAL 3311.07 MEAN 9.07 MAX 170 MIN .75 CFSM 1.97 IN. 26.78

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.--Estimated daily discharges: Nov. 3 to Dec. 10, Dec. 13 to Jan. 26, Jan. 30 to Apr. 8, Apr. 10 to May 8, May 11-13. Records good except for estimated daily discharges, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years (water years 1940-75, 1977-86), 47.2 ft^3/s, 21.02 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 greater than base discharge 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)
Oct. 15	1845	381	4.96	Apr. 8	--	500	--
Mar. 20	--	550	--	May 24	0200	428	*5.20
Mar. 30	--	*900	--				

Minimum discharge, 10 ft^3/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	33	41	17	60	37	460	47	45	18	25	27
2	30	31	68	16	56	35	430	44	64	23	26	25
3	23	29	56	16	53	34	360	42	40	24	21	23
4	28	28	51	16	50	33	300	38	35	21	18	20
5	69	40	45	16	48	34	270	39	31	37	16	19
6	57	80	43	16	45	34	250	41	31	44	15	25
7	35	96	42	15	43	33	265	43	31	29	87	20
8	30	64	41	15	43	33	330	48	32	21	102	19
9	27	56	39	16	43	32	306	57	28	18	80	18
10	25	72	37	15	42	34	250	45	25	16	56	17
11	25	68	35	15	42	36	220	40	44	14	42	17
12	22	59	32	15	42	47	200	39	70	18	36	19
13	46	66	31	14	41	42	190	36	92	31	31	18
14	43	91	28	14	41	45	180	30	56	38	28	16
15	137	200	25	15	41	80	160	28	42	29	26	15
16	126	100	24	16	41	160	140	27	37	21	27	37
17	75	95	23	15	40	135	130	31	64	19	26	26
18	61	105	22	15	40	130	120	28	40	17	36	20
19	90	100	20	15	40	230	110	27	36	15	44	19
20	73	97	20	40	40	420	100	34	33	15	29	18
21	58	80	20	60	41	210	90	45	29	17	25	25
22	48	70	19	38	42	170	96	84	26	14	34	21
23	45	67	19	33	42	140	84	143	26	13	28	26
24	43	60	19	23	42	115	78	184	25	12	65	33
25	50	55	19	22	38	110	72	89	27	11	46	24
26	42	49	18	25	38	360	74	67	24	16	38	21
27	39	47	18	203	38	500	66	53	23	28	63	20
28	37	45	18	131	37	350	58	45	24	24	45	18
29	36	44	17	95	---	420	54	40	21	37	34	24
30	35	43	17	84	---	600	50	38	21	55	28	33
31	34	---	17	74	---	550	---	34	---	32	26	---
TOTAL	1528	2070	924	1120	1209	5189	5493	1586	1122	727	1203	663
MEAN	49.3	69.0	29.8	36.1	43.2	167	183	51.2	37.4	23.5	38.8	22.1
MAX	137	200	68	203	60	600	460	184	92	55	102	37
MIN	22	28	17	14	37	32	50	27	21	11	15	15
CFSM	1.62	2.26	.98	1.18	1.42	5.48	6.00	1.68	1.23	.77	1.27	.72
IN.	1.86	2.52	1.13	1.37	1.47	6.33	6.70	1.93	1.37	.89	1.47	.81

CAL YR 1985 TOTAL 15407.6 MEAN 42.2 MAX 253 MIN 2.9 CFSM 1.38 IN. 18.79
WTR YR 1986 TOTAL 22834 MEAN 62.6 MAX 600 MIN 11 CFSM 2.05 IN. 27.85

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 mi^2.
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 above National Geodetic Vertical Datum of 1929. Prior to Oct. 30, 1927, nonrecording gage at same site and datum.
REMARKS.--Estimated daily discharges: Dec. 4-8, Dec. 15 to Jan. 20, Jan. 27 to Feb. 19. Records good except for estimated daily discharges, 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.--71 years, 1,189 ft^3/s, 23.40 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft^3/s Nov. 4, 1927, gage height, 29.3 ft, from floodmarks, from rating curve extended above 29,000 ft^3/s on basis of slope-area measurement of peak flow; minimum observed, about 35 ft^3/s Aug. 4, 1918; minimum daily, 54 ft^3/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 greater than base discharge of 11,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 20	0115	14,300	11.75	Mar. 31	0115	*17,600	*12.84

Minimum discharge, 309 ft^3/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	628	678	1030	520	1200	650	9400	1210	997	481	1740	682
2	543	648	1680	510	1150	625	9320	1180	2150	495	1430	617
3	573	623	1750	500	1100	616	6890	1110	1380	716	1140	558
4	510	595	1120	490	1050	609	5260	1030	1110	608	894	536
5	505	756	1150	480	1030	616	4370	1030	972	609	738	531
6	1320	2630	1080	470	980	625	3730	1260	911	1250	640	656
7	952	2630	1040	460	930	610	4260	1180	895	901	1220	658
8	742	1820	1010	450	920	551	4560	1250	874	674	3480	539
9	630	1480	1000	445	900	564	4360	1300	865	526	2870	484
10	570	1640	938	435	890	595	3610	1110	714	444	2500	444
11	539	1810	900	420	880	614	3180	1000	834	392	1670	426
12	501	1540	927	405	870	1010	2920	951	1850	418	1310	435
13	559	1590	787	400	860	1060	2660	883	3170	954	1060	508
14	1210	1810	846	395	850	991	2420	807	2010	1010	899	450
15	1710	4290	600	390	840	2160	2280	744	1440	1010	791	396
16	4350	2530	800	440	830	3810	2200	710	1150	740	791	725
17	1970	2250	760	490	820	2650	2080	847	1950	593	890	958
18	1440	2380	620	540	810	2650	2000	793	1490	505	817	667
19	2200	2290	540	680	800	5200	1890	764	1180	451	1100	561
20	2390	2280	600	900	789	10600	1760	1020	1120	433	852	513
21	1660	1950	680	2190	748	4350	1730	1010	1020	618	714	591
22	1370	1710	700	1840	739	3360	2540	1940	849	519	705	710
23	1200	1650	720	1400	732	3030	1940	4510	780	417	701	669
24	1080	1550	660	996	701	2830	1680	5760	817	369	1230	1490
25	1150	1410	620	880	706	2350	1530	3110	760	338	1710	1060
26	1080	1260	600	1060	707	2700	1670	2110	686	322	1330	807
27	952	1220	580	3500	638	8580	1670	1670	624	1080	1240	714
28	866	1180	560	3000	639	7980	1480	1400	608	874	1390	644
29	791	1130	550	1800	---	8510	1340	1190	554	1020	1040	636
30	752	1070	540	1600	---	12300	1310	1090	517	3240	872	867
31	716	---	530	1400	---	14500	---	963	---	1970	762	---
TOTAL	35459	50400	25918	29486	24109	107296	96040	44932	34277	23977	38526	19532
MEAN	1144	1680	836	951	861	3461	3201	1449	1143	773	1243	651
MAX	4350	4290	1750	3500	1200	14500	9400	5760	3170	3240	3480	1490
MIN	501	595	530	390	638	551	1310	710	517	322	640	396
CFSM	1.66	2.43	1.21	1.38	1.25	5.02	4.64	2.10	1.66	1.12	1.80	.94
IN.	1.91	2.72	1.40	1.59	1.30	5.78	5.18	2.42	1.85	1.29	2.08	1.05

CAL YR 1985 TOTAL 369511 MEAN 1012 MAX 7500 MIN 109 CFSM 1.47 IN. 19.92
WTR YR 1986 TOTAL 529952 MEAN 1452 MAX 14500 MIN 322 CFSM 2.10 IN. 28.57

01144500 CONNECTICUT RIVER AT WEST LEBANON, N. H.

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 mi^2.
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 above 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.--Estimated daily discharges: Oct. 8-23, Nov. 9 to Dec. 8, Dec. 22 to Jan. 20. Records good except for estimated daily discharges Dec. 22-26, Jan. 3-20, which are fair and estimated daily discharges Oct. 8-23, Nov. 9 to Dec. 8, Dec. 27 to Jan. 2, which are poor. 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 ft^3.
Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--72 years (water years 1912-76, 80-86), 7,150 ft^3/s.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 136,000 ft^3/s Nov. 4, 1927, gage height, 35.0 ft, present site, from rating curve extended above 70,000 ft^3/s; minimum daily, 82 ft^3/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 greater than base discharge of 34,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 31	0600	*50,500	*19.18	No other peak greater than base discharge.			

Minimum daily discharge, 850 ft^3/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4570	2790	2200	2700	12500	4550	46500	7530	2950	3540	5990	3080
2	3580	5050	7800	4700	11100	3460	46200	7250	8490	4060	7170	3660
3	2860	1550	9000	3000	10100	5060	41500	6860	7830	4080	6340	3880
4	2700	2260	7600	4900	9780	3910	34800	4540	7730	1650	5760	3940
5	3550	4490	6400	2800	8900	4000	30300	5070	6570	1520	3960	3570
6	2800	9630	5600	3000	7650	4060	24300	5930	4910	3100	4250	4990
7	3570	10700	5400	4100	9190	4160	18700	5310	3520	5450	5420	2810
8	3300	10500	4400	4000	6630	3150	19900	7970	1620	5570	9640	3720
9	1900	8000	5800	5000	5610	2830	20100	9710	3740	2650	8480	3680
10	850	7000	6070	4200	5010	5030	17400	9450	4730	2100	9420	2930
11	2200	7600	5940	2600	6730	4950	16500	8530	5100	1830	12800	3860
12	1300	8800	6870	1900	6500	6020	15500	6230	6380	2410	9630	4110
13	3000	8600	6750	3300	5090	6290	14200	6520	7580	2400	6390	2360
14	4400	10000	5310	4000	5890	6280	13100	5490	5390	3400	5100	2740
15	4900	15500	3920	4300	4650	8190	10400	4110	3920	4000	5430	2550
16	12500	14500	4110	3800	3450	11300	12100	4090	4010	3660	2850	3840
17	10000	13000	4550	4000	4790	9130	12700	2130	5340	3520	1680	3900
18	7100	10000	4230	3500	4120	9920	12800	1510	6450	3430	3780	4010
19	7600	9400	5780	4000	7130	13900	10700	5560	5870	1220	5240	4030
20	5800	9600	5190	4200	3910	26600	7740	4950	5480	1820	3920	2630
21	5900	9000	5230	5060	6050	21700	8140	5800	3250	2130	4120	2850
22	5100	11000	3000	5250	2170	18400	9300	9580	1570	2190	2770	4390
23	4700	9100	4800	4830	1760	15400	10900	14600	2690	2420	2420	3750
24	3560	5400	5200	5120	5250	15100	10900	18300	3470	2140	2540	5430
25	7140	6600	3900	4060	4780	14700	8420	18100	3540	2130	5060	4670
26	3130	7200	4500	4480	4850	15600	8700	15100	3290	1100	5820	4960
27	2590	5800	4300	19600	3970	26700	9210	10000	3780	2520	5290	3760
28	3000	4600	3400	28000	5310	30300	8630	7960	1500	3870	7500	3620
29	2670	3700	3200	19600	---	32300	7970	6490	1510	5200	8200	4340
30	2480	4300	4100	18800	---	41000	7150	5200	2300	12000	5770	5890
31	3210	---	4300	16000	---	49100	---	5680	---	11500	2990	---
TOTAL	131960	235670	158850	204800	172870	423090	514760	235550	134510	108610	175730	113950
MEAN	4257	7856	5124	6606	6174	13650	17160	7598	4484	3504	5669	3798
MAX	12500	15500	9000	28000	12500	49100	46500	18300	8490	12000	12800	5890
MIN	850	1550	2200	1900	1760	2830	7150	1510	1500	1100	1680	2360

CAL YR 1985 TOTAL 2223430 MEAN 6092 MAX 20300 MIN 850
WTR YR 1986 TOTAL 2610350 MEAN 7152 MAX 49100 MIN 850

01150500 MASCOMA RIVER AT MASCOMA, N. H.

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), WRD NH-VT-84-1: 1973(M).

GAGE.--Water-stage recorder. Elevation of gage is 740 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 21, 22, Sept. 10,11. Records good. Flow regulated by Mascoma and Crystal Lakes and Goose and Grafton Ponds (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--63 years, 216 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, 2,290 ft^3/s Mar. 31, gage height, 4.61 ft; minimum daily, 25 ft^3/s Sept 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	164	382	52	779	103	1990	184	170	56	219	58
2	151	162	381	58	643	100	1700	149	196	61	131	54
3	132	159	403	69	537	92	1490	133	251	59	510	54
4	115	158	421	76	478	85	1240	129	237	65	523	60
5	103	156	421	82	420	86	1060	140	198	82	325	72
6	102	167	413	87	247	89	938	133	172	169	219	70
7	107	268	402	88	137	91	664	145	155	236	215	69
8	97	398	390	88	147	90	398	158	142	185	272	112
9	87	440	382	86	151	90	315	161	123	136	328	154
10	80	420	376	84	153	91	374	147	120	116	320	48
11	72	393	368	83	153	90	492	148	135	100	307	25
12	65	373	362	83	153	89	764	119	230	108	250	40
13	66	354	356	101	151	94	753	107	455	172	127	40
14	72	351	351	112	146	100	503	102	473	276	126	40
15	89	442	342	104	105	132	316	85	393	286	124	40
16	122	559	334	97	64	193	318	80	197	254	122	40
17	152	554	227	92	75	352	317	90	100	204	120	40
18	216	527	117	86	83	470	314	97	180	152	131	40
19	254	510	117	85	87	529	310	94	188	127	135	43
20	264	494	119	88	94	731	310	92	177	121	134	50
21	266	506	121	138	103	893	163	94	161	121	130	60
22	285	505	125	193	111	1090	67	160	144	120	90	97
23	290	483	130	211	112	1060	168	261	109	117	49	135
24	257	456	132	202	109	890	204	461	95	76	56	205
25	232	453	133	189	110	740	194	855	91	44	65	314
26	208	444	131	202	110	636	209	842	86	46	74	290
27	193	420	129	511	109	616	261	598	84	62	73	224
28	182	408	127	1020	105	738	267	341	77	120	72	189
29	178	399	124	1230	---	1040	279	130	68	178	68	129
30	171	389	85	1130	---	1500	246	92	59	390	65	97
31	168	---	47	954	---	2060	---	166	---	455	63	---
TOTAL	4955	11512	7948	7681	5672	14960	16624	6493	5266	4694	5443	2889
MEAN	160	384	256	248	203	483	554	209	176	151	176	96.3
MAX	290	559	421	1230	779	2060	1990	855	473	455	523	314
MIN	65	156	47	52	64	85	67	80	59	44	49	25

CAL YR 1985 TOTAL 64156 MEAN 176 MAX 822 MIN 15
WTR YR 1986 TOTAL 94137 MEAN 258 MAX 2060 MIN 25

01150900 OTTAUQUECHEE RIVER NEAR WEST BRIDGEWATER, VT.

LOCATION.--Lat 43°37'20", long 72°45'34", Rutland County, Hydrologic Unit 02010001, on right bank 50 ft upstream from highway bridge on Mission Chapel Road, 1.6 mi northwest of West Bridgewater and 2.6 mi southeast of Sherburne Center.

DRAINAGE AREA.--23.4 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 1,150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 3 to Jan. 20, Jan. 22-26, Jan. 28 to Mar. 11, 20, 21. Records good except for estimated daily discharges and periods of shifting control May 23 to Sept. 30, which are fair. Several observations of water temperature and specific conductance were made during the year.

EXTREME FOR PERIOD OF RECORD.--Maximum discharge, 1,610 ft^3/s Mar. 20, 1986, gage height, 6.93 ft, from rating curve extended above 330 ft^3/s; minimum, 4.9 ft^3/s Aug. 18-20, 23-25, 1986.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 20	0100	*1,610	6.93	Mar. 31	0045	1,040	6.00
Mar. 20	1930	ice jam	*8.84	May 23	0700	982	5.90
Mar. 27	1945	604	5.15				

Minimum discharge, 6.6 ft^3/s Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	27	34	16	50	17	379	63	50	19	145	28
2	32	26	91	16	46	16	330	64	80	28	111	25
3	29	27	60	17	42	16	230	50	53	33	78	23
4	26	25	52	16	39	15	161	46	47	28	59	21
5	33	46	42	16	37	14	133	53	40	32	48	23
6	42	121	40	17	33	14	112	62	37	38	40	37
7	34	128	38	16	30	14	141	58	36	29	45	27
8	28	93	36	16	28	14	162	63	37	23	68	23
9	25	74	33	17	27	14	143	62	36	19	61	20
10	24	87	30	17	26	15	118	52	29	16	66	19
11	23	94	28	16	25	58	105	46	70	15	51	18
12	20	79	30	16	24	91	91	40	150	41	42	20
13	37	86	27	16	24	60	83	37	207	91	35	30
14	48	117	29	16	23	70	75	33	108	77	30	21
15	109	306	26	16	23	234	70	30	74	66	27	18
16	134	146	24	17	22	224	68	28	60	48	30	61
17	78	118	22	20	22	141	65	47	157	37	28	45
18	60	116	21	27	21	123	64	38	88	30	27	34
19	124	110	20	40	21	392	61	33	67	25	36	28
20	133	109	20	140	20	1100	59	31	62	28	27	27
21	87	88	19	242	20	350	87	53	53	40	23	42
22	67	71	19	110	19	180	137	100	45	28	23	35
23	58	68	19	64	19	125	89	684	44	23	21	70
24	51	59	19	41	18	108	71	672	45	20	73	92
25	67	51	18	35	18	89	67	320	42	18	104	61
26	58	43	18	80	19	161	93	139	34	19	61	50
27	49	44	18	394	19	495	91	99	30	61	66	43
28	42	41	18	250	18	427	78	79	28	35	56	39
29	37	39	17	120	---	393	69	64	25	77	45	35
30	33	35	17	80	---	722	73	54	23	247	37	37
31	29	---	17	60	---	793	---	47	---	140	33	---
TOTAL	1654	2474	902	1964	733	6485	3505	3247	1857	1431	1596	1052
MEAN	53.4	82.5	29.1	63.4	26.2	209	117	105	61.9	46.2	51.5	35.1
MAX	134	306	91	394	50	1100	379	684	207	247	145	92
MIN	20	25	17	16	18	14	59	28	23	15	21	18
CFSM	2.28	3.53	1.24	2.71	1.12	8.93	5.00	4.49	2.65	1.97	2.20	1.50
IN.	2.63	3.93	1.43	3.12	1.17	10.31	5.57	5.16	2.95	2.27	2.54	1.67

CAL YR 1985 TOTAL 17180.4 MEAN 47.1 MAX 536 MIN 4.9 CFSM 2.01 IN. 27.31
WTR YR 1986 TOTAL 26900 MEAN 73.7 MAX 1100 MIN 14 CFSM 3.15 IN. 42.76

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 above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Feb. 1-19, Mar. 16 to Apr. 3. Records good except estimated daily discharges Feb. 1-19, which are fair and estimated daily discharges Mar. 16 to Apr. 3, which are poor. Flow regulated by powerplants upstream and by North Hartland Reservoir (Reservoir in Connecticut River basin) since March 1961; greater regulation by powerplants at North Hartland Reservoir since July 1985. Small seasonal storage in reservoir at Plymouth. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--56 years, 399 ft^3/s, 24.52 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, 0.2 ft^3/s July 6, 1984 during Hydroelectric construction; 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, 4,590 ft^3/s Mar. 20, gage height, 7.67 ft; minimum, 7.2 ft^3/s Oct. 22; minimum daily, 21 ft^3/s Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	455	177	330	225	430	197	4100	369	401	143	590	154
2	161	219	511	130	420	192	3600	377	713	215	442	145
3	241	176	671	224	435	182	1750	348	417	298	431	144
4	147	189	453	126	370	103	1800	299	438	214	354	143
5	21	249	350	207	320	156	1320	314	378	254	262	143
6	398	1030	380	129	370	278	1310	262	353	333	244	143
7	215	932	390	186	300	179	1180	222	353	194	282	142
8	177	625	309	87	280	185	1360	859	304	128	312	141
9	168	522	389	195	330	166	1280	761	309	158	288	140
10	69	522	311	117	270	190	1160	229	320	158	286	121
11	174	551	237	205	290	182	913	41	400	124	250	112
12	167	544	367	90	260	267	771	85	954	209	182	108
13	178	535	210	223	280	304	816	223	1420	670	165	105
14	341	525	278	92	260	289	817	205	738	406	163	125
15	360	2080	131	179	230	718	433	220	662	426	202	949
16	694	1330	395	89	205	370	747	215	585	360	201	231
17	503	948	182	177	210	840	755	39	795	216	184	244
18	405	761	224	100	220	550	363	39	588	190	184	162
19	436	766	113	205	240	90	605	538	480	187	354	151
20	538	793	221	159	309	2600	461	782	538	184	251	143
21	447	673	221	455	195	3900	484	37	456	473	216	202
22	308	640	191	532	261	1200	747	272	381	152	118	180
23	335	615	223	404	232	700	657	2240	322	129	138	230
24	233	532	222	199	247	1450	477	3390	373	148	208	456
25	368	504	225	246	211	1700	447	2530	343	91	387	172
26	281	426	167	284	194	1050	568	1150	322	121	410	41
27	254	412	162	1400	181	2650	597	601	272	418	223	41
28	239	408	222	1800	190	3600	461	777	241	149	281	40
29	211	350	150	820	---	2250	478	399	228	267	234	38
30	230	321	219	605	---	3450	426	496	180	540	152	37
31	230	---	138	634	---	4000	---	444	---	781	152	---
TOTAL	8984	18355	8592	10524	7740	33988	30883	18763	14264	8336	8146	5183
MEAN	290	612	277	339	276	1096	1029	605	475	269	263	173
MAX	694	2080	671	1800	435	4000	4100	3390	1420	781	590	949
MIN	21	176	113	87	181	90	363	37	180	91	118	37
MEAN†	281	611	275	345	272	1164	958	606	475	271	262	169
CFSM†	1.27	2.76	1.24	1.56	1.23	5.27	4.33	2.74	2.15	1.23	1.19	.76
IN†	1.47	3.09	1.43	1.80	1.28	6.07	4.84	3.16	2.40	1.41	1.37	.85

CAL YR 1985 TOTAL 112638 MEAN 309 MAX 2350 MIN 21 MEAN† 308 CFSM† 1.39 IN† 18.92
WTR YR 1986 TOTAL 173758 MEAN 476 MAX 4100 MIN 21 MEAN† 475 CFSM† 2.15 IN† 29.17

† Adjusted for change in contents in North Hartland Reservoir.

01152500 SUGAR RIVER AT WEST CLAREMONT, N. H.

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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1928, nonrecording gage at site 0.8 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 9-17, Dec. 20 to Jan. 28, Feb. 4 to Mar. 16. Records good except for estimated daily discharges, 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. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--58 years, 407 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 greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 27	0600	ice jam	*9.24	Mar. 31	0400	3,090	5.18
Mar. 20	0300	*3,990	5.88				

Minimum daily discharge, 92 ft^3/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	326	173	455	160	908	320	2490	290	199	131	625	114
2	292	168	888	160	819	310	2130	258	454	177	887	113
3	253	157	945	155	756	300	1870	238	474	329	1390	109
4	241	154	688	150	700	290	1570	226	355	262	985	107
5	289	210	533	145	650	280	1400	217	296	209	623	110
6	438	1110	575	145	620	260	1170	232	282	191	472	119
7	357	1350	502	145	600	250	1120	242	282	182	419	116
8	283	1010	463	145	570	250	1130	239	273	171	743	110
9	247	807	430	145	540	240	1110	239	213	152	724	106
10	231	686	390	145	510	240	1000	229	172	135	585	99
11	243	661	390	140	490	250	888	209	200	111	525	95
12	231	702	350	140	470	270	735	191	611	115	465	102
13	248	737	320	130	450	300	631	170	1400	280	354	103
14	349	734	290	130	420	350	557	153	1070	382	266	96
15	381	1210	250	130	410	1500	501	142	799	381	219	92
16	545	962	270	130	400	2000	449	132	625	330	209	106
17	464	956	250	130	400	1620	417	133	767	248	203	121
18	408	1060	226	130	390	1340	381	134	689	201	272	117
19	406	978	199	140	390	2210	344	132	536	175	253	103
20	451	885	210	250	390	3520	316	124	518	162	227	101
21	391	783	230	740	400	2230	301	122	635	169	195	130
22	355	705	200	900	400	1740	463	196	547	162	177	143
23	330	675	190	850	400	1450	472	255	444	149	161	160
24	312	633	210	750	380	1290	397	587	380	111	172	313
25	319	576	200	700	370	1080	361	878	339	103	166	225
26	307	528	190	1100	350	1240	377	718	305	146	146	179
27	296	520	200	3000	340	2270	406	545	260	356	148	157
28	266	512	190	2600	330	2570	370	413	238	334	148	142
29	240	489	180	1720	---	2630	337	322	181	255	133	132
30	184	465	180	1390	---	2930	311	244	155	603	121	129
31	169	---	170	1110	---	2950	---	201	---	733	118	---
TOTAL	9852	20596	10764	17805	13853	38480	24004	8411	13699	7445	12131	3849
MEAN	318	687	347	574	495	1241	800	271	457	240	391	128
MAX	545	1350	945	3000	908	3520	2490	878	1400	733	1390	313
MIN	169	154	170	130	330	240	301	122	155	103	118	92

CAL YR 1985 TOTAL 117938 MEAN 323 MAX 2050 MIN 28
WTR YR 1986 TOTAL 180889 MEAN 496 MAX 3520 MIN 92

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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 6 to Jan. 18, Feb. 3 to Mar. 13. Records good except for estimated daily discharges, 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.--57 years, 293 ft^3/s, 25.18 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 Springfield Dam in 1960, 3,550 ft^3/s Apr. 11, 1962, gage height, 6.43 ft; maximum gage height, 7.43 ft Dec. 16, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,470 ft^3/s Apr. 1, gage height, 7.38 ft; minimum daily, 44 ft^3/s Sept 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	221	141	262	120	461	140	2870	247	154	105	346	71
2	249	150	586	115	404	140	2580	236	363	200	351	77
3	232	150	567	115	355	140	1940	197	346	303	432	55
4	214	153	365	115	345	140	1010	202	248	186	282	59
5	274	236	327	115	310	140	741	194	201	188	200	58
6	400	758	300	115	290	140	773	204	198	181	162	66
7	266	773	270	115	270	140	874	192	195	168	158	64
8	225	420	250	115	250	140	987	193	189	143	179	58
9	218	403	240	115	230	140	1090	203	181	112	169	57
10	181	380	230	115	215	140	777	194	146	95	155	51
11	172	350	220	115	200	150	700	173	197	90	145	49
12	159	376	210	115	190	160	678	164	623	101	135	50
13	182	485	200	110	190	170	596	150	1530	545	106	53
14	322	592	190	110	185	247	485	138	1070	520	86	51
15	354	1260	175	110	180	655	417	128	488	361	83	44
16	597	646	170	110	175	707	419	124	389	275	93	72
17	437	670	160	110	170	1090	418	154	647	214	99	107
18	350	890	155	115	165	1180	411	135	430	160	217	77
19	376	690	150	143	160	1200	357	126	341	141	195	73
20	544	636	145	259	160	2480	329	126	360	115	157	74
21	426	558	140	647	155	2980	331	137	352	159	134	106
22	350	476	140	486	150	2040	348	391	251	161	112	107
23	286	451	140	370	150	941	350	1110	241	124	94	131
24	239	419	140	266	150	756	588	1500	241	104	98	268
25	259	274	135	249	145	642	339	1420	188	94	108	204
26	250	326	135	292	140	673	357	778	171	92	118	154
27	220	319	130	660	140	1520	390	420	147	150	129	122
28	206	319	125	1280	140	1940	392	321	152	140	122	99
29	191	292	125	1650	---	2020	310	235	138	209	102	91
30	169	271	120	1290	---	2510	274	125	120	455	91	93
31	143	---	120	815	---	2940	---	288	---	468	80	---
TOTAL	8712	13864	6622	10457	6075	28401	22131	10205	10297	6359	4938	2641
MEAN	281	462	214	337	217	916	738	329	343	205	159	88.0
MAX	597	1260	586	1650	461	2980	2870	1500	1530	545	432	268
MIN	143	141	120	110	140	140	274	124	120	90	80	44
MEAN†	282	463	212	340	214	979	675	328	343	207	157	88
CFSM†	1.78	2.93	1.34	2.15	1.35	6.20	4.27	2.08	2.17	1.31	.99	.56
IN†	2.06	3.27	1.55	2.48	1.41	7.15	4.77	2.39	2.42	1.51	1.15	.62

CAL YR 1985 TOTAL 91332 MEAN 250 MAX 1260 MIN 25 MEAN† 248 CFSM† 1.57 IN† 21.30
WTR YR 1986 TOTAL 130702 MEAN 358 MAX 2980 MIN 44 MEAN† 358 CFSM† 2.27 IN† 30.78

† Adjusted for change in contents in North Springfield Reservoir.

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, N. H.

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, N. H., 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 above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 7, 8, 14-22, Feb. 12 to Mar. 4. Records good except for estimated daily discharges, 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.--44 years, 9,443 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, 66,800 ft^3/s Mar. 31, gage height, 24.01 ft; minimum daily, 1,730 ft^3/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3350	4040	7220	3590	22400	6400	62500	10200	7740	4430	12100	4410
2	3650	6130	10000	6270	20700	5600	60100	10000	7320	5020	9610	5070
3	4130	2340	14300	6830	20300	6000	54700	9190	12200	6400	13000	5390
4	3840	4140	13100	4180	16100	6600	46400	7680	8780	3970	11700	5580
5	4630	7020	10400	4070	15800	5360	38900	7100	9950	3020	8650	4920
6	5880	12100	9730	6120	13700	5830	33600	7350	8870	3040	5670	5240
7	6960	16200	8920	5200	14300	6740	30500	8330	5620	6980	6600	5790
8	5580	14300	7760	5400	11900	4310	24900	7920	4520	7500	14700	4830
9	3780	13500	7640	5370	12300	3840	26900	11200	5410	6200	14700	5100
10	5110	11700	8710	6450	9470	5180	24800	13000	5800	3930	11900	4350
11	3740	9980	8920	4710	9700	6570	22000	11300	7170	3340	17000	4810
12	2730	12300	8680	2570	8800	7530	21400	9200	10300	2070	13400	4610
13	4420	12600	9350	5180	8200	8960	21800	7930	17000	5740	10700	4090
14	6730	13500	8100	5300	7000	10500	16400	7490	11700	6360	9280	2010
15	6030	24100	4890	5500	6400	14700	13800	5940	9030	6160	6530	4000
16	12600	20900	6500	4600	7000	20100	15600	6040	7410	6810	6460	6050
17	14900	19300	6080	4800	6400	20700	17300	2900	9310	5590	4630	5370
18	11700	17800	6410	4600	7200	20800	16400	3090	10700	4940	5180	5290
19	8810	13900	5920	5000	7000	28000	15100	6620	8720	1760	5750	5110
20	9530	14500	5840	6000	7600	48000	11300	7280	9830	3030	7140	4650
21	8420	14000	6090	7400	8000	41000	12300	7890	8850	3540	5940	4880
22	9210	15100	4880	8200	5000	33000	12400	8610	5980	3240	4600	5790
23	6450	13900	5810	9080	5600	25200	13300	18300	4730	3820	3460	7060
24	8080	13000	6630	7590	5000	24100	14800	25900	5550	3010	3680	7710
25	7850	8910	5980	4570	7200	22900	12900	26000	5720	3040	5520	6820
26	4480	9490	5620	9930	6800	24500	12100	21000	5020	1730	6700	6790
27	4910	11000	5660	29000	6400	37300	11800	14100	5320	4000	7950	5810
28	4240	8530	4740	44800	6000	46400	12400	12900	2980	5760	8460	4640
29	4750	5930	4480	42100	---	47100	12000	10500	2530	6640	9560	5330
30	3640	8320	4930	33500	---	54700	10000	6250	4090	14900	10100	5830
31	5310	---	5900	30800	---	64900	---	7410	---	17100	5090	---
TOTAL	195440	358530	229190	328710	282270	662820	698400	318620	228150	163070	265760	157330
MEAN	6305	11950	7393	10600	10080	21380	23280	10280	7605	5260	8573	5244
MAX	14900	24100	14300	44800	22400	64900	62500	26000	17000	17100	17000	7710
MIN	2730	2340	4480	2570	5000	3840	10000	2900	2530	1730	3460	2010

CAL YR 1985 TOTAL 2931360 MEAN 8031 MAX 29400 MIN 1300
WTR YR 1986 TOTAL 3888290 MEAN 10650 MAX 64900 MIN 1730

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

WATER-QUALITY RECORDS

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 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
DEC										
02...	--	--	126	--	--	1.0	--	--	--	--
16...	1145	11200	108	6.63	-4.0	0.5	30	1.0	14.2	99
MAR										
25...	1030	22900	98	7.88	4.0	0.0	24	4.5	14.7	100
JUL										
16...	1115	7670	147	6.94	25.0	19.5	44	1.5	7.2	--

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
DEC										
02...	--	--	--	--	--	--	--	--	--	--
16...	180	75	14	1.6	4.6	1.1	10	7.0	<1.0	6.2
MAR										
25...	70	39	11	1.4	4.8	0.90	10	7.6	<0.10	5.5
JUL										
16...	160	15	18	1.9	6.4	1.2	9.9	9.2	<0.10	4.7

DATE	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 TOTAL (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, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
DEC										
02...	--	--	--	--	--	--	--	--	--	--
16...	63	63	0.280	0.050	0.040	0.05	0.40	0.010	<0.010	0.010
MAR										
25...	59	56	0.390	0.090	0.070	0.09	1.0	0.080	0.010	<0.010
JUL										
16...	78	78	0.220	0.020	0.030	0.04	0.40	0.020	0.010	<0.010

< Actual value is known to be less than the value shown.

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, N. H.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
DEC										
02...	--	--	--	--	--	--	--	--	--	--
16...	30	<1	13	<0.5	<1	<1	<3	2	81	1
MAR										
25...	40	<1	12	<0.5	<1	<1	<3	3	59	1
JUL										
16...	20	<1	13	<0.5	<1	<1	<3	6	46	<5

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
DEC										
02...	--	--	--	--	--	--	--	--	--	--
16...	<4	27	<0.1	<10	<1	<1	<1	66	<6	13
MAR										
25...	<4	14	<0.1	<10	<1	<1	5	50	<6	490
JUL										
16...	<4	12	0.1	<10	6	<1	<1	82	<6	8

< Actual value is known to be less than the value shown.

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. Elevation of gage is 640 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 29, Feb. 8 to Mar. 15. Records good except for estimated daily discharges, 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.--40 years, 369 ft^3/s, 27.99 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, 4,430 ft^3/s Mar. 31, gage height, 8.94 ft; minimum discharge, 40 ft^3/s July 26; minimum daily, 40 ft^3/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	182	304	140	861	90	3710	204	120	101	601	67
2	746	156	546	130	803	64	2550	570	697	331	532	54
3	182	143	743	130	836	64	2000	905	631	635	799	55
4	118	143	499	130	855	80	1250	899	225	723	621	55
5	754	166	416	130	597	100	953	114	143	410	340	56
6	773	534	346	130	399	125	831	114	201	227	260	56
7	281	1000	324	130	354	125	719	114	299	225	140	76
8	306	707	309	130	250	125	1400	94	312	223	397	88
9	252	380	290	130	170	125	1570	81	305	151	388	86
10	196	303	245	130	200	125	930	648	196	86	274	86
11	178	389	232	125	200	130	707	614	96	67	270	86
12	160	603	235	120	200	170	655	73	659	73	216	61
13	154	873	233	115	200	300	583	92	2000	495	142	47
14	196	931	235	115	200	350	428	128	1350	855	116	47
15	253	1740	236	110	170	370	322	143	477	784	78	47
16	497	1300	214	110	150	517	301	143	284	347	86	49
17	520	806	185	110	160	777	351	122	1060	149	109	49
18	298	989	175	110	180	1050	371	133	879	146	228	49
19	228	861	165	110	200	1270	328	143	303	154	229	49
20	296	734	155	160	180	3050	279	143	468	153	114	50
21	442	623	155	170	140	4000	186	158	536	128	70	63
22	423	540	155	230	130	3350	145	513	415	94	70	57
23	259	426	155	260	150	2850	146	799	295	83	70	68
24	223	402	155	300	220	2160	149	1040	278	82	114	71
25	252	401	150	310	250	860	150	760	276	69	141	64
26	293	390	150	320	250	646	156	314	188	40	138	196
27	288	357	150	400	200	1770	155	240	101	80	165	445
28	279	349	150	640	150	2740	156	222	123	98	163	472
29	219	352	130	580	---	2780	157	185	134	148	102	460
30	188	344	140	833	---	3010	183	120	133	979	85	450
31	183	---	150	938	---	3800	---	109	---	1350	85	---
TOTAL	10497	17124	7727	7476	8655	36973	21821	9937	13184	9486	7143	3559
MEAN	339	571	249	241	309	1193	727	321	439	306	230	119
MAX	1060	1740	743	938	861	4000	3710	1040	2000	1350	799	472
MIN	118	143	130	110	130	64	145	73	96	40	70	47
MEAN†	272	570	251	335	211	1253	755	254	441	310	226	146
CFSM†	1.52	3.18	1.40	1.87	1.18	7.00	4.22	1.42	2.46	1.73	1.26	.82
IN†	1.75	3.55	1.61	2.16	1.23	8.07	4.71	1.64	2.75	2.00	1.46	.91

CAL YR 1985 TOTAL 112633 MEAN 309 MAX 2130 MIN 42 MEAN† 306 CFSM† 1.71 IN† 23.18
WTR YR 1986 TOTAL 153582 MEAN 421 MAX 4000 MIN 40 MEAN† 420 CFSM† 2.35 IN† 31.83

† 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 above 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.--Estimated daily discharges: Dec. 4-Jan. 25, Feb. 7-18. Records good except for estimated daily discharges, 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.--62 years, 629 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, 6,610 ft^3/s Mar. 21, gage height, 8.77 ft,; minimum, 83 ft^3/s Sept 15, 16; minimum daily, 86 ft^3/s Sept 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2080	268	535	245	1060	222	5640	328	163	175	957	140
2	1160	256	862	240	998	180	3890	612	693	521	943	115
3	358	223	1440	235	1010	176	2710	915	934	939	1150	111
4	258	218	775	225	1190	175	2470	964	397	923	899	111
5	834	417	550	215	1020	180	1570	340	247	698	553	112
6	1070	1300	500	205	552	222	1320	226	252	319	377	132
7	496	1510	480	195	465	214	1270	233	409	352	377	136
8	449	1260	450	190	405	216	1770	225	451	318	770	136
9	403	749	410	195	345	216	2370	207	430	271	793	134
10	326	521	400	200	290	218	1570	627	345	185	458	128
11	283	620	370	190	265	233	1120	660	224	140	438	122
12	265	900	345	180	265	336	936	235	557	139	375	123
13	242	1320	345	170	270	416	884	159	2810	539	277	101
14	282	1490	345	160	280	541	740	173	2100	1130	210	97
15	343	2430	330	165	270	1520	587	195	872	940	187	86
16	543	2250	315	170	250	1610	461	195	505	573	170	89
17	679	1400	300	180	260	1970	510	193	1710	285	211	105
18	492	1730	270	190	270	2190	545	180	1510	229	416	98
19	346	1580	250	195	309	2640	522	188	673	224	469	94
20	421	1420	240	360	317	5130	449	187	1010	213	309	101
21	495	1110	240	735	307	6320	403	195	1110	205	196	191
22	570	969	240	710	303	5610	401	548	772	170	174	174
23	412	832	240	610	279	4420	357	945	555	139	159	189
24	326	747	240	590	273	3320	349	1230	436	132	171	369
25	338	741	230	680	355	1550	339	1110	396	128	213	217
26	402	700	220	1170	351	1310	349	476	351	105	206	185
27	395	535	230	2530	329	3090	368	327	216	155	241	413
28	374	606	300	2270	262	4130	340	299	194	182	300	486
29	339	604	290	1300	---	4290	320	273	196	282	211	504
30	282	572	275	1070	---	4680	310	201	192	1350	161	467
31	278	---	255	1050	---	5590	---	166	---	1770	151	---
TOTAL	15541	29278	12272	16820	12550	62915	34870	12812	20710	13731	12522	5466
MEAN	501	976	396	543	448	2030	1162	413	690	443	404	182
MAX	2080	2430	1440	2530	1190	6320	5640	1230	2810	1770	1150	504
MIN	242	218	220	160	250	175	310	159	163	105	151	86

CAL YR 1985 TOTAL 181882 MEAN 498 MAX 3650 MIN 61
WTR YR 1986 TOTAL 249487 MEAN 684 MAX 6320 MIN 86

01158000 ASHUELOT RIVER BELOW SURRY MOUNTAIN DAM, NEAR KEENE, N. H.

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 mi².

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

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

REMARKS.--Estimated daily discharges: Jan. 3 to Feb. 19, Aug. 25 to Sept. 15, Sept. 19-30. Records good except for periods of estimated daily discharges, which are fair. 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.--41 years, 176 ft³/s, 23.66 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 1,320 ft³/s Oct. 28, 1959, gage height, 9.60 ft; minimum daily, 0.4 ft³/s Sept. 17, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,090 ft³/s Mar. 30, gage height, 8.59 ft; minimum daily, 22 ft³/s Sept. 14-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	58	186	68	670	92	974	118	75	82	802	63
2	170	58	188	68	648	92	878	109	98	117	779	55
3	146	58	274	68	652	92	903	98	113	257	754	49
4	141	101	309	70	532	92	872	90	118	310	723	46
5	149	121	304	70	543	93	833	84	114	283	724	46
6	190	163	300	90	640	94	513	82	112	240	723	52
7	204	187	294	107	640	94	526	80	115	205	589	57
8	184	230	249	107	376	73	727	79	114	171	400	54
9	166	249	189	107	219	64	733	78	106	136	448	51
10	151	243	168	79	175	64	690	74	91	111	556	48
11	128	241	168	68	162	64	623	70	81	91	629	45
12	110	240	168	68	162	88	434	63	105	79	468	43
13	114	241	168	68	125	121	319	53	311	93	332	28
14	127	243	168	59	110	121	261	42	415	130	251	22
15	137	247	168	36	110	109	225	38	373	139	200	22
16	143	253	165	28	110	155	200	39	344	126	186	22
17	136	292	124	28	133	388	182	41	575	108	192	22
18	134	418	107	28	143	547	167	42	686	92	182	211
19	135	479	107	29	143	311	154	41	640	78	176	264
20	136	470	107	50	143	332	145	39	574	67	155	184
21	132	454	107	125	143	759	69	42	640	59	140	166
22	119	362	107	168	167	857	81	59	606	51	131	162
23	113	243	107	170	178	880	131	88	426	45	116	168
24	121	243	107	170	211	921	148	136	311	38	108	214
25	112	241	107	168	220	954	148	203	244	33	97	231
26	111	203	107	168	215	976	151	220	199	30	89	202
27	110	184	107	65	202	872	153	198	163	140	89	172
28	80	186	81	210	119	910	150	172	134	292	94	155
29	58	186	68	498	---	1080	141	136	112	517	88	145
30	58	186	68	650	---	1080	130	107	96	470	78	140
31	58	---	68	685	---	1090	---	87	---	810	70	---
TOTAL	4060	7080	4945	4373	7891	13465	11661	2808	8091	5400	10369	3139
MEAN	131	236	160	141	282	434	389	90.6	270	174	334	105
MAX	204	479	309	685	670	1090	974	220	686	810	802	264
MIN	58	58	68	28	110	64	69	38	75	30	70	22
MEAN†	132	241	155	248	158	549	270	88.4	271	255	253	101
CFSM†	1.31	2.39	1.53	2.46	1.56	5.44	2.67	.88	2.68	2.52	2.50	1.00
IN†	1.51	2.66	1.78	2.83	1.63	6.27	2.98	1.01	2.99	2.92	2.89	1.11

CAL YR 1985 TOTAL 48427.2 MEAN 133 MAX 798 MIN 9.6 MEAN† 132 CFSM† 1.31 IN† 17.68
WTR YR 1986 TOTAL 83284 MEAN 228 MAX 1090 MIN 22 MEAN† 227 CFSM† 2.25 IN† 30.58

† Adjusted for change in contents in Surry Mountain Lake.

01158600 OTTER BROOK BELOW OTTER BROOK DAM, NEAR KEENE, N. H.

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 above U. S. Army Corps of Engineers datum.

REMARKS.--No estimated daily discharges. 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.--28 years, 79.9 ft^3/s, 22.99 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, 588 ft^3/s July 29, gage height, 8.42 ft; minimum, 9.1 ft^3/s Jan. 27, Mar. 15; minimum daily, 10 ft^3/s Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	22	70	23	400	58	394	44	32	27	505	24
2	30	21	127	23	378	50	344	31	79	60	524	21
3	27	21	161	24	360	45	436	35	81	129	547	19
4	57	21	119	40	276	45	237	38	58	104	532	18
5	74	35	81	48	279	45	265	32	47	72	496	19
6	115	151	91	47	315	44	295	36	58	58	448	26
7	87	192	97	47	178	44	217	36	76	51	248	27
8	77	153	73	34	71	43	192	36	72	45	155	23
9	66	100	61	29	46	43	183	34	60	39	133	20
10	54	83	62	29	47	43	164	32	47	33	119	18
11	47	83	61	29	65	43	153	29	43	27	117	16
12	38	98	52	29	72	43	154	27	91	24	104	18
13	36	119	48	33	71	43	190	25	279	38	79	16
14	40	116	48	24	53	44	141	24	326	66	63	14
15	39	181	48	24	46	63	112	20	134	56	53	13
16	42	159	48	24	46	96	75	20	129	43	54	11
17	39	170	27	24	46	191	60	20	302	34	57	10
18	35	191	17	24	45	266	61	21	386	28	94	27
19	36	191	17	24	46	138	61	19	136	25	77	22
20	43	170	16	39	46	168	53	18	178	22	61	16
21	40	136	56	84	45	385	50	23	307	21	50	30
22	36	116	72	105	73	464	61	61	335	15	42	37
23	32	112	47	102	104	480	91	73	165	16	36	46
24	31	106	37	65	111	527	58	173	110	16	38	93
25	32	94	37	52	73	553	40	164	86	14	35	67
26	30	84	38	53	58	549	41	103	66	13	30	49
27	28	85	38	23	58	442	42	75	52	20	38	40
28	26	87	38	104	58	460	43	64	46	27	49	33
29	24	83	37	286	---	533	43	51	39	313	38	30
30	23	75	28	393	---	523	44	42	32	316	31	28
31	22	---	23	417	---	516	---	35	---	512	27	---
TOTAL	1342	3255	1775	2302	3466	6987	4300	1441	3852	2264	4880	831
MEAN	43.3	109	57.3	74.3	124	225	143	46.5	128	73.0	157	27.7
MAX	115	192	161	417	400	553	436	173	386	512	547	93
MIN	22	21	16	23	45	43	40	18	32	13	27	10
MEAN†	43.1	109	57.3	120	71.5	254	114	47.5	128	132	98.7	27.7
CFSM†	.91	2.31	1.21	2.54	1.51	5.38	2.42	1.01	2.71	2.80	2.09	.59
IN†	1.05	2.58	1.40	2.93	6.20	2.69	1.16	3.03	3.22	2.41	.65	

CAL YR 1985 TOTAL 19659.7 MEAN 53.9 MAX 397 MIN 3.3 MEAN† 53.5 CFSM† 1.13 IN† 15.39
WTR YR 1986 TOTAL 36695 MEAN 101 MAX 553 MIN 10 MEAN† 101 CFSM† 2.14 IN† 28.92

† Adjusted for change in contents on Otter Brook Lake.

CONNECTICUT RIVER BASIN

01161000 ASHUELOT RIVER AT HINSDALE, N. H.

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 mi².

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 20 .32 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers). Prior to Sept. 29, 1933, nonrecording gage on highway bridge at same datum.

REMARKS.--Estimated daily discharges: Dec. 12 to Jan. 26, Jan. 30 to Feb. 18, Feb. 26 to Mar. 5, Mar. 7-9. Records good except for estimated daily discharges, 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.--76 years, 673 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,600 ft³/s Mar. 19, 1936, by computation of peak flow over dam; maximum gage height, 20.2 ft Mar. 19, 1936, from floodmarks (backwater from the Connecticut River); minimum discharge, 10 ft³/s Sept. 9, 1953; minimum daily, 12 ft³/s Sept. 15, 1929.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,770 ft³/s Mar. 20, gage height, 7.67 ft; minimum 121 ft³/s July 25; minimum daily, 125 ft³/s July 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	356	153	574	270	1960	500	2930	448	288	287	2180	266
2	290	151	766	260	1880	450	2610	418	330	312	2170	241
3	265	151	1190	250	1730	400	2340	376	459	634	2290	222
4	304	148	1070	250	1600	410	2290	364	402	833	2080	210
5	394	243	937	270	1360	429	2030	351	352	760	1820	204
6	540	538	859	300	1260	426	1980	344	452	634	1660	222
7	589	807	825	300	1180	400	1740	346	719	536	1560	235
8	477	743	784	290	970	350	1800	337	776	457	1360	226
9	406	633	673	270	790	340	1900	330	634	392	1600	211
10	354	567	582	250	660	359	1800	313	478	331	1730	196
11	308	559	562	240	590	361	1640	299	385	277	1590	182
12	267	614	550	230	550	401	1460	279	424	249	1430	174
13	246	683	520	230	510	471	1210	264	1140	279	1060	182
14	251	699	500	210	475	773	1050	243	1550	361	786	182
15	272	841	470	190	450	3520	876	223	1320	404	619	164
16	295	868	480	180	430	4270	774	210	942	360	557	154
17	302	912	460	180	440	3330	679	207	1190	308	580	163
18	309	1100	400	180	450	3130	626	212	1570	270	734	171
19	283	1230	390	180	494	3830	583	205	1460	241	764	254
20	291	1210	380	240	500	5350	543	192	1530	219	637	378
21	290	1100	430	400	571	4170	511	202	2060	201	534	353
22	273	1000	430	910	842	3310	494	294	1950	183	461	361
23	251	885	380	900	963	2950	535	380	1560	164	404	441
24	240	770	370	740	903	2760	607	569	1060	150	387	866
25	244	721	350	640	824	2650	575	918	804	136	375	880
26	237	703	340	1100	690	2660	575	806	639	125	334	650
27	225	661	330	3870	600	3000	579	624	521	125	328	516
28	214	662	320	4390	575	3230	555	573	455	260	383	435
29	186	651	300	2940	---	3250	517	481	402	700	362	383
30	170	606	290	2320	---	3250	483	384	333	1950	316	353
31	155	---	280	2110	---	3110	---	323	---	2300	288	---
TOTAL	9284	20609	16792	25090	24247	63840	36292	11515	26185	14438	31379	9475
MEAN	299	687	542	809	866	2059	1210	371	873	466	1012	316
MAX	589	1230	1190	4390	1960	5350	2930	918	2060	2300	2290	880
MIN	155	148	280	180	430	340	483	192	288	125	288	154

CAL YR 1985 TOTAL 147633 MEAN 404 MAX 3030 MIN 63
WTR YR 1986 TOTAL 289146 MEAN 792 MAX 5350 MIN 125

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, N. H., 506,000,000 ft^3; First Lake, 5.6 mi northeast of Pittsburg, N. H., 3,330,000,000 ft^3. Records provided by New England Power Co.

01129000. LAKE FRANCIS on Connecticut River at Pittsburg, N. H., 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 provided 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, N. H., filled in April 1956, 4,970,000,000 ft^3; Comerford Reservoir, 5 mi northeast of Monroe, N. H., completed in 1930, 1,279,000,000 ft^3. Records provided 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 provided by U. S. Army 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, N. H., 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 provided 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 provided by U. S. Army Corps of Engineers.

01152000. SUNAPEE LAKE on Sugar River at Sunapee, N. H., used for recreation and storage of water for power, has usable capacity of 862,000,000 ft^3. Records provided 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 provided by U. S. Army 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 provided by U. S. Army 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 provided by U. S. Army Corps of Engineers.

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

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

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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, 1985	2532.8	3382.6	6665.8	1.7	1023.0	151.1
Oct. 31	2229.6	3354.4	5546.5	1.9	773.2	127.0
Nov. 30	2349.4	3714.4	5767.3	16.7	867.5	125.0
Dec. 31	1431.2	2580.2	4900.4	18.6	573.4	118.0
Jan. 31, 1986	1455.2	2034.8	5932.8	150.3	722.1	132.0
Feb. 28	1003.5	1334.6	5840.6	19.5	701.9	122.0
Mar. 31	1383.5	1563.5	3257.5	71.8	1013.3	302.4
Apr. 30	2797.6	2759.0	6099.6	4.4	1080.6	118.0
May 31	3455.8	3124.1	5924.0	3.7	1105.3	121.0
June 30	3426.5	3334.4	5977.9	3.4	1109.3	119.0
July 31	3182.9	3230.7	5705.4	3.4	1076.4	125.0
Aug. 31	3145.7	3334.4	5974.6	2.0	1067.6	123.0
Sept. 30	2702.1	3660.4	5876.6	2.2	1040.0	112.0

Date	Sunapee Lake	North Springfield Lake	Ball Mountain Reservoir	Townshend Reservoir	Surry Mountain Lake	Otter Brook Lake
Sept. 30, 1985	507	20.8	206.4	126	75.6	38.2
Oct. 31	340	24.7	28.0	38.0	79.5	37.6
Nov. 30	391	26.2	24.6	40.4	92.8	39.0
Dec. 31	289	22.5	28.0	38.0	82.0	39.0
Jan. 31, 1986	440	30.5	279.7	44.4	369.1	161.6
Feb. 28	320	23.3	41.8	37.2	69.3	35.1
Mar. 31	544	191.7	202.6	139.0	376.0	111.2
Apr. 30	610	29.1	273.6	38.0	68.1	35.1
May 31	653	26.2	95.0	35.8	62.2	37.9
June 30	607	24.7	99.3	35.8	64.5	37.6
July 31	624	29.8	109.3	38.6	282.0	194.8
Aug. 31	551	24.0	97.1	35.5	63.4	37.6
Sept. 30	461	24.0	168.6	37.6	53.2	37.6

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. Elevation of gage is 525 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 18-20, 26-28, Jan. 2-16, 24, 25, 28-31, Feb. 1-3, 7, 9-14, 16, 26-28, Mar. 8. Records good except for estimated daily discharges, 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.--55 years, 222 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.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 15	0300	*3,430	*7.40	Mar. 19	2300	2,470	6.22

Minimum daily discharge, 60 ft^3/s Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	99	173	87	200	111	738	196	129	98	259	103
2	107	94	400	75	180	106	627	189	479	339	414	95
3	104	87	318	80	165	108	492	171	250	433	300	91
4	108	95	215	80	171	109	421	164	162	371	206	89
5	173	166	189	90	171	119	380	169	137	242	167	101
6	223	316	183	85	153	115	355	168	160	190	142	143
7	143	341	168	85	140	107	486	166	191	155	173	102
8	117	261	161	85	144	95	539	160	163	136	436	91
9	103	202	156	120	130	92	469	159	167	118	416	88
10	95	207	146	125	128	101	418	140	125	105	340	78
11	93	443	145	85	120	313	360	130	136	95	245	76
12	87	400	200	75	120	274	315	122	269	106	190	88
13	110	474	179	65	110	228	287	114	411	180	158	106
14	121	461	162	60	110	738	297	108	260	251	134	80
15	126	706	128	95	106	2260	302	104	186	163	121	71
16	160	424	132	140	105	887	276	103	234	135	333	92
17	119	451	126	133	99	622	255	121	397	112	237	92
18	103	418	110	115	105	565	233	115	228	104	269	78
19	239	357	105	104	120	1200	216	98	174	95	221	74
20	282	340	100	338	120	1540	204	93	838	98	159	79
21	180	280	106	335	281	720	239	124	487	115	139	145
22	148	248	103	212	380	531	375	222	299	96	125	112
23	130	234	103	177	232	459	272	322	254	81	112	467
24	119	210	106	110	164	422	246	250	220	74	171	479
25	156	186	110	120	142	371	231	203	185	69	138	247
26	139	177	108	600	125	459	238	154	159	76	110	174
27	122	226	123	1170	130	774	221	129	143	238	326	150
28	111	217	128	525	120	677	196	116	138	131	218	133
29	105	190	193	350	---	693	185	102	118	753	150	126
30	106	174	104	275	---	978	244	94	107	605	126	132
31	111	---	93	230	---	1020	---	92	---	344	112	---
TOTAL	4161	8484	4773	6226	4271	16794	10117	4598	7206	6108	6647	3982
MEAN	134	283	154	201	153	542	337	148	240	197	214	133
MAX	282	706	400	1170	380	2260	738	322	838	753	436	479
MIN	87	87	93	60	99	92	185	92	107	69	110	71

CAL YR 1985 TOTAL 65380 MEAN 179 MAX 894 MIN 38
WTR YR 1986 TOTAL 83367 MEAN 228 MAX 2260 MIN 60

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. Elevation of gage is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 20, Jan. 29 to Feb. 20, Mar. 21-26, and Mar 28 to Apr. 2. Records fair except for estimated daily discharges, which are poor. Flow regulated by powerplant upstream and Lake Bomoseen. Several observations of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--58 years, 256 ft^3/s, 18.59 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 discharges greater than base discharge 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. 20	0215	*8,620	*19.51	Mar. 31	--	6,000	--

Minimum daily discharge, 11 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	186	319	90	820	281	2500	137	147	79	248	70
2	68	183	659	78	800	233	1500	131	184	101	404	61
3	81	166	696	98	760	231	800	124	130	178	295	27
4	85	133	368	100	690	157	650	116	132	147	226	65
5	101	130	314	92	640	145	612	96	130	133	187	55
6	233	185	291	90	580	131	547	114	136	138	143	44
7	155	200	273	70	520	120	667	104	129	125	136	44
8	114	200	255	60	370	112	613	101	126	117	288	98
9	106	186	234	92	390	136	544	96	108	70	245	36
10	107	184	230	90	420	118	506	83	86	100	253	11
11	83	196	241	300	380	142	481	76	178	72	256	27
12	83	207	320	280	360	208	449	77	470	77	272	60
13	107	209	304	265	350	205	400	66	773	284	170	34
14	200	308	302	230	350	246	365	86	487	295	155	43
15	345	1020	272	135	330	1250	333	73	333	267	93	47
16	546	759	270	47	350	2170	305	75	277	168	142	60
17	348	704	272	25	320	1720	264	101	474	145	127	86
18	290	747	251	60	340	1770	197	111	334	116	114	45
19	353	627	170	78	370	2750	202	92	266	113	130	76
20	524	549	120	300	400	6110	162	101	299	91	111	69
21	369	482	125	1440	670	1900	175	125	363	125	89	73
22	319	429	115	1240	701	1700	250	374	281	198	89	58
23	289	421	120	989	659	1650	210	789	168	161	55	120
24	265	413	100	897	622	1550	176	928	145	52	128	227
25	285	370	105	880	522	1400	146	915	186	77	120	185
26	274	343	92	917	475	1600	165	647	135	55	99	115
27	245	338	105	1250	395	3000	158	607	116	221	102	97
28	227	350	100	1330	285	4200	153	577	118	98	86	96
29	211	330	100	1000	---	4700	145	428	100	424	77	114
30	199	318	105	960	---	5000	139	206	87	353	75	108
31	189	---	115	890	---	5500	---	157	---	261	72	---
TOTAL	6870	10873	7343	14373	13869	50435	13814	7713	6898	4841	4987	2251
MEAN	222	362	237	464	495	1627	460	249	230	156	161	75.0
MAX	546	1020	696	1440	820	6110	2500	928	773	424	404	227
MIN	68	130	92	25	285	112	139	66	86	52	55	11
CFSM	1.19	1.94	1.27	2.48	2.65	8.70	2.46	1.33	1.23	.83	.86	.40
IN.	1.37	2.16	1.46	2.86	2.76	10.03	2.75	1.53	1.37	.96	.99	.45

CAL YR 1985 TOTAL 79074.3 MEAN 217 MAX 1930 MIN 8.5 CFSM 1.16 IN. 15.73
WTR YR 1986 TOTAL 144267 MEAN 395 MAX 6110 MIN 11 CFSM 2.11 IN. 28.70

04280350 METTAWEE RIVER NEAR PAWLET, VT.

LOCATION.--Lat 43°22'18", long 73°12'59", Rutland County, Hydrologic Unit 02010001, on left bank 10 ft downstream from highway bridge 1.0 mi southwest of Butternut Bend and 2.5 mi northwest of Pawlet.

DRAINAGE AREA.--70.2 mi^2.

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

GAGE.--Water-stage recorder. Elevation at gage is 525 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 5 to Apr. 1, May 22 to June 23. Records good except for estimated daily discharges, which are fair. Several observations of water temperature and specific conductance were made during the year.

EXTREME FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft^3/s Mar. 15, 1986, gage height unknown, minimum, 7.8 ft^3/s July 30, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 15	--	1,200	--	No other peak greater than base discharge.			

Minimum discharge, 15 ft^3/s on Sept. 12, 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	52	123	70	90	50	400	92	80	63	103	31
2	34	52	292	60	80	45	350	92	270	126	107	30
3	33	49	216	66	74	47	300	82	120	130	105	28
4	32	50	169	66	74	50	268	79	100	112	82	28
5	44	60	150	70	68	50	237	87	82	96	71	29
6	54	71	140	70	64	47	218	87	92	102	64	31
7	42	80	130	70	62	45	248	79	110	87	74	26
8	37	77	120	70	60	42	226	72	96	73	102	25
9	34	71	110	96	56	42	203	74	94	64	108	23
10	35	72	110	100	55	44	208	68	74	56	114	22
11	31	114	110	75	53	130	199	61	82	50	94	21
12	28	116	110	60	50	100	185	57	160	78	78	19
13	39	134	105	52	48	150	172	54	230	127	68	21
14	51	160	100	48	47	300	162	50	150	119	60	17
15	71	305	100	90	46	900	153	47	110	92	56	17
16	73	197	90	130	45	500	144	46	150	79	69	47
17	51	219	82	105	43	280	136	58	230	69	57	30
18	45	198	82	95	47	250	130	48	150	64	92	24
19	98	174	83	86	60	600	125	41	105	57	101	23
20	135	159	84	270	62	760	117	40	480	55	74	25
21	103	145	86	260	125	350	131	53	250	56	63	76
22	87	139	86	170	155	250	161	120	170	47	56	43
23	79	138	88	140	110	200	132	180	150	42	55	94
24	75	124	89	100	70	180	126	160	130	38	58	108
25	81	113	90	115	64	170	121	120	128	35	52	72
26	75	112	90	250	58	200	126	90	107	63	45	60
27	69	139	105	600	62	320	118	75	95	126	53	51
28	62	131	110	300	60	280	112	65	89	67	43	49
29	59	121	140	150	---	320	103	60	77	130	40	49
30	57	116	100	120	---	400	102	55	72	189	37	50
31	55	---	75	100	---	450	---	53	---	117	32	---
TOTAL	1807	3688	3565	4054	1888	7552	5413	2345	4233	2609	2213	1169
MEAN	58.3	123	115	131	67.4	244	180	75.6	141	84.2	71.4	39.0
MAX	135	305	292	600	155	900	400	180	480	189	114	108
MIN	28	49	75	48	43	42	102	40	72	35	32	17
CFSM	.83	1.74	1.63	1.86	.96	3.46	2.55	1.07	2.00	1.19	1.01	.55
IN.	.95	1.95	1.88	2.14	1.00	3.98	2.86	1.24	2.23	1.38	1.17	.62

CAL YR 1985 TOTAL 32555.0 MEAN 89.2 MAX 640 MIN 9.6 CFSM 1.27 IN. 17.18
WTR YR 1986 TOTAL 40536 MEAN 111 MAX 900 MIN 17 CFSM 1.57 IN. 21.39

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 above 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.--Estimated daily discharges: Nov. 22 to Jan. 12, Feb. 2 to Mar. 10, June 14-26, July 8-15, Sept. 27-30. Records good except for estimated daily discharges, Jan. 11-12, Feb. 2 to Mar. 10, which are fair and estimated daily discharges, Nov. 22 to Jan. 10, June 14-26, July 8-15, Sept. 27-30, which are poor. 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.--58 years, 552 ft^3/s, 24.42 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 greater than base discharge 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)
Mar. 20	1215	*6,600	*10.80	Mar. 31	0645	4,020	8.33

Minimum daily discharge, 155 ft^3/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	331	349	430	320	530	280	3060	494	456	246	973	249
2	326	306	680	310	500	245	2350	498	805	331	853	233
3	277	289	760	300	490	245	1940	461	666	655	651	227
4	227	309	640	295	460	240	1520	384	520	638	514	186
5	287	364	600	295	450	240	1230	410	455	550	384	180
6	461	733	580	290	430	240	1030	474	464	535	328	290
7	362	821	560	285	410	235	1140	471	465	414	372	249
8	264	646	540	280	390	230	1220	476	464	370	689	191
9	228	512	520	280	380	230	1190	499	438	290	540	167
10	223	490	500	275	380	280	1080	426	389	240	525	165
11	198	595	480	270	380	373	1010	392	742	220	398	160
12	189	610	490	225	375	582	894	373	1250	240	334	162
13	311	743	460	270	370	579	791	360	1500	520	283	198
14	520	1040	480	274	365	615	725	354	950	560	254	169
15	688	1840	400	257	370	1580	675	324	690	540	234	155
16	879	1220	450	253	365	1770	674	315	550	400	298	432
17	597	968	410	265	360	1690	673	426	930	365	294	403
18	487	1030	370	277	360	1690	679	334	700	301	355	272
19	828	933	330	273	355	3040	592	327	560	260	411	220
20	1030	908	360	675	350	6200	531	328	530	278	298	205
21	701	840	380	1110	345	3940	589	370	490	409	250	270
22	592	720	400	896	340	2440	981	748	410	298	240	283
23	515	660	385	736	330	1630	749	1850	370	239	228	572
24	480	620	380	517	325	1330	582	2040	390	202	424	812
25	534	580	375	426	310	1110	518	1370	360	183	516	463
26	514	540	370	564	305	1310	608	880	330	201	326	337
27	433	520	365	1510	295	2590	704	714	320	644	342	320
28	404	490	360	1460	290	2820	623	583	302	360	313	300
29	389	470	350	997	---	2620	571	559	279	1150	283	330
30	372	450	340	768	---	3250	563	492	249	1630	279	400
31	362	---	330	663	---	3850	---	451	---	1040	264	---
TOTAL	14009	20596	14075	15616	10610	47474	29492	18183	17024	14309	12453	8600
MEAN	452	687	454	504	379	1531	983	587	567	462	402	287
MAX	1030	1840	760	1510	530	6200	3060	2040	1500	1630	973	812
MIN	189	289	330	225	290	230	518	315	249	183	228	155
CFSM	1.47	2.24	1.48	1.64	1.23	4.99	3.20	1.91	1.85	1.50	1.31	.93
IN.	1.70	2.50	1.71	1.89	1.29	5.75	3.57	2.20	2.06	1.73	1.51	1.04

CAL YR 1985 TOTAL 158604 MEAN 435 MAX 2030 MIN 45 CFSM 1.42 IN. 19.22
WTR YR 1986 TOTAL 222441 MEAN 609 MAX 6200 MIN 155 CFSM 1.99 IN. 26.95

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 above 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.--Estimated daily discharges: Dec. 15 to Jan. 19, Feb. 5 to Mar. 11. Records good except for estimated daily discharges, which are fair. 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.--70 years (water years 1904-06, 1911-19, 1929-86), 992 ft^3/s, 21.45 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, 5,480 ft^3/s Mar. 24, gage height, 6.82 ft; minimum daily, 347 ft^3/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	882	635	830	460	1640	570	4690	901	950	500	1910	534
2	674	635	1250	455	1440	550	4750	860	1120	524	1920	507
3	655	561	1620	455	1260	530	4820	856	1290	614	1840	498
4	592	525	1600	450	1180	530	4820	777	1190	949	1730	560
5	621	597	1330	435	990	525	4660	709	947	998	1450	523
6	932	922	1190	450	970	520	4410	794	814	1080	1100	506
7	933	1360	1110	440	950	520	4130	903	777	1020	1510	559
8	776	1430	922	435	780	515	3850	862	698	787	1970	515
9	667	1260	856	435	770	500	3580	869	774	609	1860	445
10	542	1100	870	435	720	470	3330	818	684	537	1760	375
11	539	1060	879	435	720	530	3140	691	706	448	1580	357
12	505	1070	866	430	710	779	2970	639	1340	435	1330	360
13	509	1170	850	430	700	972	2790	683	1740	882	1050	381
14	722	1380	833	435	680	1100	2600	606	1840	1470	880	360
15	1120	1980	600	440	660	1540	2390	635	1910	1510	744	347
16	1750	2080	550	490	640	1930	2150	577	1840	1280	664	517
17	1750	2130	600	440	630	2090	1900	571	1760	975	723	920
18	1540	2110	680	435	620	2250	1670	607	1790	745	1030	848
19	1620	2060	580	460	620	2620	1430	611	1810	615	1160	650
20	1810	2030	540	705	610	3310	1180	575	1710	555	1020	525
21	1800	1910	520	1440	610	3560	1020	639	1530	669	825	485
22	1650	1770	510	1680	605	4040	1140	1190	1320	724	691	563
23	1420	1620	500	1690	605	5000	1340	2160	1070	605	634	747
24	1150	1440	530	1600	600	5460	1310	2310	973	477	679	1310
25	1030	1200	540	1390	600	5270	1130	2360	918	442	967	1390
26	967	1090	560	1090	595	4960	968	2350	837	494	1040	1130
27	956	1050	520	1240	590	4900	984	2340	816	732	900	787
28	811	969	480	1610	580	4720	1080	2240	682	1040	834	651
29	675	887	475	1740	---	4510	997	2010	560	963	713	662
30	671	854	470	1790	---	4520	966	1700	530	1600	584	752
31	627	---	465	1760	---	4680	---	1330	---	1830	560	---
TOTAL	30896	38885	24126	26180	22075	73971	76195	35173	34926	26109	35658	18764
MEAN	997	1296	778	845	788	2386	2540	1135	1164	842	1150	625
MAX	1810	2130	1620	1790	1640	5460	4820	2360	1910	1830	1970	1390
MIN	505	525	465	430	580	470	966	571	530	435	560	347
CFSM	1.59	2.06	1.24	1.35	1.25	3.80	4.04	1.81	1.85	1.34	1.83	1.00
IN.	1.83	2.30	1.43	1.55	1.31	4.38	4.51	2.08	2.07	1.55	2.11	1.11

CAL YR 1985 TOTAL 318487 MEAN 873 MAX 2580 MIN 145 CFSM 1.39 IN. 18.87
WTR YR 1986 TOTAL 442958 MEAN 1214 MAX 5460 MIN 347 CFSM 1.93 IN. 26.24

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 above 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 above National Geodetic Vertical Datum of 1929, Nov. 1, 1933, to Sept. 30, 1964, and 1,069.59 ft above National Geodetic Vertical Datum of 1929, Oct. 1, 1964 to Aug. 7, 1972 (levels by U.S. Army Corps of Engineers).
REMARKS.--Estimated daily discharges: Dec. 2-7, Dec. 11 to Mar. 14. Records good except for estimated daily discharges, which are fair. 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.--56 years, 55.1 ft^3/s, 19.24 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, 567 ft^3/s Mar. 16, gage height, 4.88 ft; maximum gage height, 4.96 ft; Jan. 27 (backwater from ice), minimum, 8.6 ft^3/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	23	44	14	39	15	449	36	86	22	23	21
2	14	23	80	13	31	14	461	36	237	26	19	20
3	15	23	72	13	27	14	452	35	68	38	18	19
4	15	23	62	13	25	14	398	35	49	33	15	19
5	39	37	56	12	24	13	226	35	37	48	12	19
6	47	93	52	13	23	13	148	35	34	79	11	22
7	24	105	45	12	23	13	171	36	35	39	101	23
8	18	74	42	12	22	13	216	45	35	26	343	19
9	17	93	41	12	21	13	192	51	33	22	167	18
10	16	105	38	12	21	13	148	35	27	20	86	16
11	15	99	35	11	20	12	121	32	73	18	44	16
12	14	74	33	11	19	19	118	40	98	18	37	17
13	47	52	31	11	19	16	117	33	118	33	31	18
14	42	75	30	11	18	14	107	32	57	56	26	18
15	96	152	29	11	18	199	98	30	39	64	24	17
16	97	60	27	12	17	389	92	25	31	26	24	56
17	42	60	26	12	17	95	85	31	229	21	27	45
18	33	77	25	12	16	60	75	32	79	20	77	27
19	95	80	24	12	16	93	68	33	47	18	69	22
20	69	77	23	72	16	316	63	45	37	17	36	21
21	50	67	22	170	16	204	63	58	27	17	27	33
22	43	59	21	40	16	97	116	151	23	16	31	31
23	37	57	20	28	16	56	110	205	26	14	30	32
24	35	56	19	22	16	50	96	112	33	13	72	61
25	42	51	18	23	15	55	72	84	43	10	63	37
26	38	51	18	50	15	59	51	56	30	9.1	45	27
27	33	46	17	190	15	255	48	44	25	22	45	21
28	31	46	16	210	15	305	43	40	25	19	50	21
29	27	46	16	120	---	281	41	34	25	18	35	21
30	24	45	15	82	---	368	38	62	26	65	27	36
31	23	---	14	54	---	430	---	40	---	35	24	---
TOTAL	1154	1929	1011	1290	556	3508	4483	1598	1732	882.1	1639	773
MEAN	37.2	64.3	32.6	41.6	19.9	113	149	51.5	57.7	28.5	52.9	25.8
MAX	97	152	80	210	39	430	461	205	237	79	343	61
MIN	14	23	14	11	15	12	38	25	23	9.1	11	16
MEAN†	37.5	64.6	32.9	42.4	19.1	138	124	52.1	57.6	28.8	53.8	27.0
CFSM†	.96	1.66	.85	1.09	.49	3.55	3.19	1.34	1.48	.74	1.38	.69
IN†	1.11	1.85	.97	1.26	.51	4.08	3.55	1.54	1.65	.86	1.60	.77

CAL YR 1985 TOTAL 17435.3 MEAN 47.8 MAX 551 MIN 4.0 MEAN† 47.7 CFSM† 1.23 IN† 16.66
WTR YR 1986 TOTAL 20555.1 MEAN 56.3 MAX 461 MIN 9.1 MEAN† 56.6 CFSM† 1.46 IN† 19.76

† 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.--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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Nov. 21, 1934, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 19, 21, 22, 26; Jan. 4, 7-9, 11, 13-16, 27-31; Feb. 1-18, 22, 23, 25-28; Mar. 1, 2, 7-9, 15. Records good except those for estimated daily discharges, which are poor. Discharge affected since 1935 by Wrightsville Detention Reservoir (Reservoirs in Winooski River basin). Flow regulated by powerplant at Wrightsville Detention Reservoir since September 1985. 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.--53 years, 135 ft^3/s, 26.49 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, 1,030 ft^3/s Apr. 3, gage height, 4.08 ft; minimum daily, 10 ft^3/s July 22-25, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	73	129	23	130	30	905	83	120	24	74	76
2	33	65	111	23	110	35	875	100	123	25	129	52
3	53	65	107	23	115	64	860	112	122	25	106	39
4	66	64	173	26	125	80	916	111	85	25	72	26
5	98	42	171	23	80	69	968	78	69	36	60	32
6	323	40	63	24	75	41	945	60	58	29	61	77
7	208	263	78	24	125	25	899	60	53	75	44	94
8	136	247	78	24	120	35	849	71	53	65	63	40
9	118	178	79	26	125	25	807	77	23	24	70	53
10	87	194	112	24	80	62	753	77	30	24	87	53
11	56	233	79	26	66	63	496	76	63	24	55	39
12	31	207	61	23	70	61	281	95	128	25	61	100
13	43	228	61	24	60	61	258	108	181	25	27	113
14	181	429	61	24	46	64	250	81	170	27	23	54
15	270	710	61	42	30	170	264	73	78	107	17	48
16	427	362	61	56	30	623	289	64	147	156	23	112
17	235	266	61	62	30	422	286	56	173	55	23	183
18	157	280	59	59	64	314	263	20	183	24	26	134
19	156	280	58	58	83	374	226	71	160	27	31	74
20	149	304	46	90	81	759	194	61	99	33	26	67
21	134	256	24	200	72	609	183	99	63	21	23	60
22	134	200	24	227	70	312	186	205	32	10	33	81
23	133	179	23	175	70	247	182	626	67	10	38	86
24	116	176	40	161	46	211	132	561	56	10	263	165
25	48	174	58	157	30	181	95	316	45	10	513	146
26	29	84	70	105	40	189	75	252	30	11	246	120
27	29	24	58	105	30	664	86	218	25	11	350	106
28	91	26	58	240	30	770	113	192	25	10	505	86
29	172	91	58	220	---	837	113	157	41	17	235	83
30	115	130	58	180	---	886	88	124	24	205	175	340
31	85	---	39	145	---	890	---	123	---	154	96	---
TOTAL	3994	5870	2219	2619	2033	9173	12837	4407	2526	1324	3555	2739
MEAN	129	196	71.6	84.5	72.6	296	428	142	84.2	42.7	115	91.3
MAX	427	710	173	240	130	890	968	626	183	205	513	340
MIN	29	24	23	23	30	25	75	20	23	10	17	26
MEAN†	122	203	65.3	93.2	66.8	404	320	140	81.5	47.6	113	100
CFSM†	1.76	2.93	.94	1.35	.97	5.84	4.62	2.02	1.18	.69	1.63	1.44
IN†	2.03	3.28	1.09	1.55	1.00	6.74	5.16	2.33	1.31	.79	1.89	1.62

CAL YR 1985 TOTAL 44573.8 MEAN 122 MAX 722 MIN 6.6 MEAN† 119 CFSM† 1.72 IN† 23.36
WTR YR 1986 TOTAL 53296 MEAN 146 MAX 968 MIN 10 MEAN† 147 CFSM† 2.12 IN† 28.79

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 mi^2. 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 above National Geodetic Vertical Datum of 1929 (levels by U. S. Army 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 above National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam completed by U. S. Army Corps of Engineers in 1935 for flood control. Usable capacity, 525,000,000 ft^3 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, 1,143.83 ft Mar. 31; minimum, 1128.40 ft Oct. 11-13.

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 mi^2. 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 above National Geodetic Vertical Datum of 1929 (levels by U. S. Army 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 above National Geodetic Vertical Datum of 1929.

Reservoir is formed by earthfill dam completed by U. S. Army 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 ft^3 between elevations 612.75 ft (bottom of outlet opening) and 620.00 ft; for flood control, 851,500,000 ft^3 between elevations 620.00 ft and 685.00 ft (crest of spillway). Reservoir used for storage of water for power September 1985 to current year. Usable capacity for storage of water power 774,000,000 ft^3 betweeen elevation 631.00 ft, sill of gate and 685.00 ft, crest of spillway. Total usable capacity 873,500,000 ft^3. 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, 663.30 ft Apr. 3; minimum, 630.12 ft Nov. 5.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

	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	1128.49	3.8	--	--
Oct. 31	1129.29	4.7	+.9	+.34
Nov. 30	1129.97	5.5	+.8	+.31
Dec. 31	1130.48	6.2	+.7	+.26
CAL YR 1985	--	--	-1.6	-.05
Jan. 31	1131.97	8.2	+2.0	+.75
Feb. 28	1130.60	6.3	-1.9	-.79
Mar. 31	1143.83	72.1	+65.8	+24.6
Apr. 30	1130.19	5.8	-66.3	-25.6
May 31	1131.34	7.3	+1.5	+.56
June 30	1131.09	7.0	-.3	-.12
July 31	1131.67	7.8	+.8	+.30
Aug. 31	1133.33	10.3	+2.5	+.93
Sept. 30	1135.15	13.5	+3.2	+1.23
WTR YR 1986	--	--	+9.7	+.31
		04285000 Wrightsville Detention Reservoir		
Sept. 30	633.96	101.2	--	--
Oct. 31	631.36	81.7	-19.5	-7.28
Nov. 30	634.00	101.5	+19.8	+7.64
Dec. 31	631.76	84.6	-16.9	-6.31
CAL YR 1985	--	--	-96.7	-3.07
Jan. 31	634.80	107.9	+23.3	+8.70
Feb. 28	632.98	93.7	-14.2	-5.87
Mar. 31	659.53	384.5	+290.8	+109
Apr. 30	634.40	104.7	-279.8	-108
May 31	633.56	98.1	-6.6	-2.46
June 30	632.64	91.1	-7.0	-2.70
July 31	634.33	104.2	+13.1	+4.89
Aug. 31	634.20	103.1	-3.3	-1.23
Sept. 30	636.73	123.9	+23.0	+8.87
WTR YR 1986	--	--	+22.7	+.72

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 above 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.--Estimated daily discharges: Dec. 11 to Mar. 20. Records good except those for estimated daily discharges and shifting control, Feb. 25 to Aug. 27, 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 regulated 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.--67 years (water years 1915-23, 1929-86), 592 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 greater than base discharge 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)
Mar. 19	2315	ice jam	*11.09	Mar. 31	0015	*6,050	10.36
Mar. 27	2015	4,050	8.28				

Minimum daily discharge, 127 ft^3/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	308	309	468	290	620	340	4420	460	650	252	483	263
2	250	281	882	250	630	280	4260	480	1100	241	773	227
3	288	249	777	290	580	320	3580	464	608	291	488	218
4	268	244	592	280	590	390	3110	436	470	303	309	226
5	531	348	573	240	580	380	2630	416	408	333	261	209
6	990	801	482	250	560	360	2330	415	377	508	266	344
7	578	1250	432	280	440	330	2360	426	370	409	347	317
8	382	910	392	290	480	300	2460	577	372	333	954	209
9	338	735	405	300	410	240	2360	604	342	220	642	222
10	290	769	514	280	390	260	2060	472	287	220	470	219
11	268	871	415	285	410	300	1770	408	536	179	315	210
12	213	746	370	240	400	420	1550	442	756	213	339	382
13	385	903	325	230	360	400	1460	421	929	264	259	362
14	622	1430	340	230	400	430	1380	362	650	361	241	225
15	1020	2450	310	250	380	2100	1330	308	430	530	189	212
16	1480	1280	370	300	350	3200	1280	303	496	424	178	473
17	841	1060	390	255	300	2000	1240	336	1580	289	188	575
18	608	1190	405	270	350	1450	1130	299	802	240	261	397
19	793	1140	330	265	440	2500	953	318	573	212	356	298
20	707	1110	370	600	450	4200	845	578	449	183	207	273
21	525	935	360	1050	450	2100	822	544	376	178	192	319
22	473	784	270	800	400	1480	1040	1310	280	143	234	347
23	444	742	280	640	340	1250	891	2490	311	158	212	384
24	434	696	340	460	340	1140	782	1460	333	137	696	633
25	371	653	350	480	360	1060	662	1020	352	127	965	618
26	340	513	270	400	350	1400	610	762	297	171	555	406
27	275	438	320	1200	350	3550	569	627	265	327	714	318
28	287	405	360	1800	340	3460	568	558	293	253	1060	269
29	410	449	310	1100	---	4030	554	490	277	324	591	268
30	368	512	290	900	---	4920	482	535	267	786	451	864
31	319	---	300	720	---	5430	---	461	---	624	315	---
TOTAL	15406	24203	12592	15225	12050	50020	49488	18782	15236	9233	13511	10287
MEAN	497	807	406	491	430	1614	1650	606	508	298	436	343
MAX	1480	2450	882	1800	630	5430	4420	2490	1580	786	1060	864
MIN	213	244	270	230	300	240	482	299	265	127	178	209
(†)	403.8	378.4	295.1	258.0	137.6	186.3	337.0	405.3	435.3	441.9	407.7	393.8

CAL YR 1985 TOTAL 196400 MEAN 538 MAX 2450 MIN 70
WTR YR 1986 TOTAL 246033 MEAN 674 MAX 5430 MIN 127

† Monthend contents, in millions of cubic feet, in Peacham Pond and Molly Falls Reservoir, records furnished by Green Mountain Power Corporation.

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 mi².

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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 11 to Jan. 20, 23-26, Feb. 3 to Mar. 11. Records good except for estimated daily discharges, 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.--52 year, 123 ft³/s, 21.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft³/s, June 30, 1973, gage height, 11.57 ft, from rating curve extended above 1,500 ft³/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; minimum, 4.3 ft³/s Aug. 31, Sept. 7, 1942.

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

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 30	1945	2,580	5.76	May 22	2400	*2,870	*6.06

Minimum discharge, 13 ft³/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	78	99	54	140	61	990	91	250	52	53	49
2	77	75	165	54	126	58	923	90	289	63	52	45
3	77	71	137	54	110	56	616	84	166	66	48	39
4	69	68	123	54	105	57	464	80	134	59	40	45
5	178	92	105	52	100	58	375	81	115	100	35	41
6	250	197	104	54	97	57	333	86	111	143	32	60
7	145	232	100	52	96	56	353	89	105	103	96	50
8	112	155	98	50	95	56	423	101	106	70	163	35
9	101	137	96	52	92	55	382	121	90	56	161	39
10	95	172	90	50	90	57	321	95	78	49	114	37
11	90	166	84	48	88	61	294	85	150	44	83	37
12	82	141	82	45	86	77	285	83	228	48	63	40
13	149	160	79	47	84	71	274	74	316	72	52	43
14	165	221	78	48	78	75	257	68	195	118	50	34
15	397	482	77	48	72	227	242	62	143	125	44	30
16	425	244	76	50	70	361	228	62	134	77	44	72
17	216	230	75	50	69	248	210	64	464	60	45	62
18	167	247	74	50	68	242	192	59	202	54	69	43
19	233	244	73	50	68	567	175	64	151	48	71	43
20	198	239	72	115	67	1010	161	103	131	44	47	44
21	157	193	71	287	67	381	161	107	111	46	43	53
22	138	168	68	169	66	309	180	399	94	39	63	49
23	123	161	67	115	66	261	148	922	90	35	41	51
24	112	146	66	88	66	209	135	309	83	32	97	82
25	119	132	65	84	65	201	127	219	93	29	123	63
26	108	118	64	90	68	776	131	170	75	36	81	53
27	101	114	63	333	64	1140	122	143	68	69	101	44
28	96	108	62	353	62	868	112	121	67	46	101	43
29	89	105	60	223	---	1150	106	106	59	49	69	48
30	86	102	57	182	---	1430	100	103	63	74	63	77
31	83	---	55	151	---	1530	---	89	---	64	55	---
TOTAL	4520	4998	2585	3152	2325	11965	8820	4330	4361	1970	2199	1451
MEAN	146	167	83.4	102	83.0	386	294	140	145	63.5	70.9	48.4
MAX	425	482	165	353	140	1630	990	922	464	143	163	82
MIN	69	68	55	45	62	55	100	59	59	29	32	30
CFSM	1.92	2.19	1.10	1.34	1.09	5.07	3.86	1.84	1.91	.83	.93	.64
IN.	2.21	2.44	1.26	1.54	1.14	5.85	4.31	2.12	2.13	.96	1.07	.71

CAL YR 1985 TOTAL 40493 MEAN 111 MAX 862 MIN 11 CFSM 1.46 IN. 19.79
WTR YR 1986 TOTAL 52676 MEAN 144 MAX 1630 MIN 29 CFSM 1.89 IN. 25.75

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 above National Geodetic Vertical Datum of 1929 (levels by Vermont Department of Highway). 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.--Estimated daily discharges: Dec. 3-7, Dec. 12 to Jan. 27, Jan. 29 to Mar. 19, Mar. 31 to Apr. 1. Records good except for estimated daily discharges, which are fair. 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.--58 years (water years 1928-86), 258 ft^3/s, 25.21 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)
Mar. 19	ice jam	4,100	*9.06	May 23	0045	4,090	7.59
Mar. 30	1900	*4,160	7.65				

Minimum discharge, 61 ft^3/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	126	173	92	310	110	1700	189	282	96	233	151
2	201	121	436	90	280	105	1570	196	403	124	240	133
3	183	117	325	88	240	100	1030	168	206	141	170	120
4	149	112	290	86	220	98	720	157	161	142	136	117
5	390	213	275	84	210	105	543	164	136	429	113	132
6	428	649	190	82	200	105	472	199	131	566	102	184
7	268	560	180	80	195	105	517	199	125	318	780	129
8	201	357	174	78	190	100	635	221	152	188	825	110
9	173	316	167	76	180	96	610	265	141	140	807	98
10	162	481	158	75	175	110	485	196	105	113	461	92
11	183	413	147	74	170	200	437	172	340	102	303	107
12	151	329	140	72	165	660	413	158	443	112	222	164
13	438	401	135	71	160	560	401	143	625	183	175	135
14	383	664	135	70	150	600	364	129	346	356	146	107
15	741	1180	130	75	140	1600	355	118	227	336	126	94
16	681	516	130	90	130	1550	354	114	212	188	124	258
17	382	467	130	100	125	1000	351	118	1120	141	135	206
18	300	493	125	140	120	850	345	110	373	115	144	149
19	638	465	125	150	120	1800	328	111	265	102	182	125
20	459	455	120	470	120	2100	305	114	216	91	118	119
21	340	367	120	880	115	829	336	171	173	100	105	194
22	282	320	115	450	115	597	443	481	145	85	224	149
23	242	305	115	330	115	487	307	1580	137	74	140	237
24	213	278	110	180	115	417	254	640	130	68	437	454
25	223	242	110	170	115	363	234	418	199	62	1220	242
26	195	212	105	220	120	1090	279	294	137	138	392	187
27	175	205	105	750	115	2610	266	225	117	241	492	162
28	158	194	105	980	110	1650	232	185	118	116	372	144
29	145	182	100	580	---	2120	207	154	103	648	274	160
30	139	175	96	440	---	3010	224	138	140	581	211	395
31	134	---	94	350	---	2600	---	121	---	330	175	---
TOTAL	8911	10915	4860	7473	4520	27727	14717	7648	7408	6426	9584	5054
MEAN	287	364	157	241	161	894	491	247	247	207	309	168
MAX	741	1180	436	980	310	3010	1700	1580	1120	648	1220	454
MIN	134	112	94	70	110	96	207	110	103	62	102	92
CFSM	2.06	2.62	1.13	1.73	1.16	6.43	3.53	1.78	1.78	1.49	2.22	1.21
IN.	2.38	2.92	1.30	2.00	1.21	7.42	3.94	2.05	1.98	1.72	2.56	1.35

CAL YR 1985 TOTAL 91588 MEAN 251 MAX 2200 MIN 20 CFSM 1.81 IN. 24.51
WTR YR 1986 TOTAL 115243 MEAN 316 MAX 3010 MIN 62 CFSM 2.27 IN. 30.84

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 U.S. Army 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, 594.52 ft Aug. 25; minimum not determined.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATION AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	507.00	530.43	530.51	535.86	551.09	557.86	584.95	590.25	590.93	590.50	589.96	589.58
2	507.00	531.12	532.00	535.59	551.32	558.17	585.82	590.01	590.22	590.70	590.56	589.51
3	506.90	531.78	531.69	535.32	551.59	558.48	585.07	590.16	589.98	590.95	590.55	589.41
4	507.50	530.00	529.21	535.92	551.54	558.78	583.61	590.12	590.24	591.35	590.30	588.93
5	508.50	527.68	529.75	536.55	551.49	559.10	581.76	590.01	590.13	591.21	589.96	588.39
6	509.10	531.50	530.43	535.80	551.57	559.42	579.64	590.07	590.03	590.75	589.74	588.62
7	508.50	534.20	531.65	534.59	551.52	559.81	579.34	590.17	590.24	590.51	589.58	588.84
8	507.90	532.70	532.20	533.93	552.02	560.06	579.46	590.28	590.61	590.40	590.19	588.70
9	508.10	530.52	531.13	533.72	552.46	560.38	579.72	590.13	590.53	590.35	590.31	588.65
10	508.20	532.13	530.79	533.56	551.66	560.48	579.50	590.31	590.45	590.50	590.13	588.64
11	508.90	531.36	530.71	534.18	551.58	560.88	579.37	590.46	590.45	590.22	590.01	588.86
12	509.20	531.75	531.49	534.79	551.99	561.14	579.48	590.21	590.39	589.85	589.72	588.52
13	509.50	535.07	532.44	534.79	552.40	560.88	579.01	590.45	590.52	590.17	589.41	588.65
14	509.80	538.99	533.39	534.92	552.78	560.02	579.39	590.58	590.60	590.14	589.13	587.98
15	509.90	541.50	534.12	534.71	553.18	561.67	580.17	590.54	590.73	590.00	589.05	588.20
16	509.90	540.69	534.04	534.40	553.54	562.30	580.61	590.45	590.52	589.86	589.24	588.63
17	509.70	539.76	534.05	534.97	553.89	561.86	580.78	590.71	590.78	589.75	589.43	588.30
18	510.20	539.04	533.48	535.56	554.25	561.31	581.31	590.96	590.67	589.60	589.61	587.99
19	511.10	538.16	532.95	536.28	554.60	562.73	582.38	591.18	590.12	589.75	589.23	587.91
20	510.80	537.47	533.13	539.50	555.01	564.23	583.36	590.85	589.53	589.87	589.06	588.23
21	512.50	536.01	533.90	543.59	555.43	563.70	584.30	590.68	589.43	590.00	589.13	588.67
22	516.18	534.08	534.60	545.27	555.78	565.18	585.47	590.68	589.64	589.98	589.72	588.48
23	518.73	531.98	534.51	546.28	556.12	566.35	586.03	593.20	589.35	590.00	590.04	588.38
24	520.39	529.59	534.79	546.88	556.47	567.37	586.44	592.64	589.36	590.08	592.70	588.38
25	522.76	529.29	535.50	547.38	556.82	568.00	587.06	592.00	589.55	590.15	593.95	587.82
26	524.37	529.58	535.44	548.10	557.15	569.79	587.83	591.22	589.61	590.32	592.72	587.70
27	525.77	529.73	534.74	549.96	557.26	572.37	588.40	590.42	589.72	590.57	593.33	587.96
28	526.88	530.34	535.41	550.87	557.57	572.43	589.02	590.27	589.96	590.52	592.77	588.21
29	528.13	530.23	536.04	550.02	---	575.55	589.52	590.54	590.22	590.30	502.07	588.10
30	528.89	529.30	535.71	550.55	---	580.90	589.99	590.29	590.34	590.26	591.25	589.71
31	529.70	---	535.22	551.03	---	584.14	---	590.58	---	590.14	590.35	---
MEAN	513.94	533.20	533.07	539.83	553.65	564.37	583.29	590.66	590.16	590.28	587.52	588.53
MAX	529.70	541.50	536.04	551.03	557.57	584.14	589.99	593.20	590.93	591.35	593.95	589.71
MIN	506.90	527.68	529.21	533.56	551.09	557.86	579.01	590.01	589.35	589.60	502.07	587.70
(†)	177.8	174.0	240.2	481.0	608.6	1300.8	1504.6	1527.4	1518.2	1510.4	1518.2	1494.6
(‡)	+55.7	+1.47	+24.7	+89.9	+52.7	+258.4	+78.6	+8.51	-3.55	-2.91	+2.91	-9.10

CAL YR 1985 MEAN 532.32 MAX 578.11 MIN 501.70 (†) -13.6
WTR YR 1985 MEAN 564.02 MAX 593.95 MIN 502.07 (‡) +46.5

† 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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). July 7 to Oct. 31, 1910, nonrecording gage at site 2 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 14 to Dec. 3, Jan. 17-27, Feb. 8, 9, Feb. 12 to Mar. 12. Records fair except for periods of estimated daily discharges, Jan. 17-27, Feb. 8, 9, Feb. 12 to Mar. 12, which are poor. Flow completely regulated by Waterbury Reservoir (station 04288500). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--51 years, 241 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, 1,610 ft^3/s Aug. 25, gage height, 9.51 ft; minimum daily, 6.7 ft^3/s Nov. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	13	12	21	153	15	1240	76	132	19	340	515
2	145	13	200	125	135	16	1250	291	594	21	203	162
3	180	12	300	126	139	16	1240	66	267	20	198	163
4	133	80	420	19	145	16	1230	164	18	20	292	311
5	135	438	111	23	145	15	1230	214	155	327	249	366
6	389	317	91	190	112	16	1130	178	155	598	184	81
7	257	96	12	238	116	13	773	180	19	351	249	22
8	178	308	83	162	14	13	566	206	238	165	41	162
9	142	449	253	116	15	14	566	302	270	102	413	110
10	134	287	157	113	285	39	566	89	168	19	422	94
11	146	444	130	22	127	13	487	84	314	176	247	145
12	165	287	47	25	14	70	394	207	383	225	251	394
13	172	240	13	97	15	208	567	61	446	48	223	89
14	369	220	15	62	16	369	283	63	228	357	202	411
15	272	340	16	100	16	412	141	112	101	367	122	23
16	480	450	122	115	15	620	290	127	322	193	22	184
17	351	440	104	14	17	630	413	18	614	146	29	347
18	253	440	159	15	17	635	311	17	362	154	27	309
19	226	440	156	17	17	654	20	59	377	20	217	166
20	261	430	83	25	18	928	21	260	403	19	140	23
21	199	420	18	24	18	744	78	379	156	19	67	22
22	9.3	420	25	20	18	52	25	600	22	63	26	214
23	7.7	410	110	15	19	36	29	820	232	38	22	348
24	7.0	400	74	17	17	42	79	808	110	19	135	369
25	7.8	200	22	16	17	88	28	645	86	25	1220	413
26	7.0	94	100	17	18	212	34	604	86	20	991	243
27	6.7	105	192	30	40	918	37	570	59	20	820	23
28	15	70	22	198	15	1190	39	207	22	98	916	22
29	9.3	120	26	436	---	1210	41	19	22	318	680	191
30	17	190	134	106	---	1230	43	315	59	283	600	427
31	13	---	156	99	---	1250	---	18	---	188	597	---
TOTAL	4806.8	8173	3363	2603	1693	11684	13151	7759	6420	4438	10145	6349
MEAN	155	272	108	84.0	60.5	377	438	250	214	143	327	212
MAX	480	450	420	436	285	1250	1250	820	614	598	1220	515
MIN	6.7	12	12	14	14	13	20	17	18	19	22	22

CAL YR 1985 TOTAL 90682.8 MEAN 248 MAX 556 MIN 6.7
WTR YR 1986 TOTAL 80584.8 MEAN 221 MAX 1250 MIN 6.7

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. Elevation of gage is 185 ft above National Geodetic Vertical Datum of 1929, from topographic map; prior to Oct. 1, 1964, datum was 1.00 ft higher.
REMARKS.--Estimated daily discharges Dec. 18 to Jan. 27, Jan. 29 to Mar. 14, Mar. 18-22. Records good except those for estimated daily discharges, 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.--58 years, 1,716 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 greater than base discharge 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)
Mar. 27	2000	14,800	10.56	May 23	1115	14,600	10.48
Mar. 31	1145	*20,200	*13.40				

Minimum daily discharge, 279 ft^3/s July 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	959	798	1370	860	1750	650	12100	1010	1030	668	1580	1330
2	987	651	1470	640	1500	660	11200	1180	2570	492	1640	617
3	1070	606	2430	740	1400	580	9010	1070	2280	756	1510	778
4	848	624	1850	760	1250	560	7140	1050	1430	761	1060	753
5	1000	1100	1370	680	1250	800	6190	1060	1010	967	925	777
6	2570	2110	1320	660	1450	830	5400	1210	1060	2360	616	960
7	1740	3050	1110	700	1200	630	5010	1210	894	1980	1130	772
8	1270	2530	1010	830	1100	660	4910	1220	933	1410	2400	921
9	1050	2110	1270	810	1000	660	5250	1610	1240	845	2980	784
10	950	2160	1260	820	1050	640	4490	1550	1040	630	2700	634
11	885	2750	1200	600	1150	660	3900	1100	1060	589	1930	667
12	864	2180	896	640	920	920	3400	1050	1870	660	1090	604
13	1080	2040	951	600	850	1150	3470	1010	2930	676	953	1060
14	2240	3110	707	580	730	1200	3050	837	2390	1210	891	902
15	1980	7240	722	550	880	3200	2660	706	1890	1710	713	670
16	4600	4300	882	750	780	7460	2590	841	1130	1450	580	796
17	2510	3070	998	650	750	5490	2730	747	4690	1030	498	1490
18	1830	3200	860	560	700	4100	2710	670	3260	832	630	1360
19	1980	3130	770	710	780	5800	2080	835	2080	461	687	957
20	2410	3000	840	1400	880	10500	1850	937	1630	448	884	751
21	1730	2680	880	3900	990	7300	1810	1330	1210	585	668	539
22	1370	2310	740	3600	900	4400	2140	2740	943	279	906	1050
23	1170	2140	640	2600	820	3530	1950	10800	668	569	800	1030
24	1100	2040	750	1350	720	3060	1700	5630	1130	377	1270	1900
25	1030	1950	740	1000	740	2700	1520	3720	838	470	5170	1770
26	1000	1240	670	1150	700	4020	1380	2710	943	337	3300	1600
27	823	1380	750	1200	790	12700	1340	2210	835	851	2500	867
28	792	1160	960	6000	700	11500	1340	1790	670	671	3470	669
29	878	1100	830	5700	---	10700	1190	1200	582	914	2490	763
30	895	1210	750	3100	---	15800	1220	1180	723	2010	2020	2570
31	650	---	800	1800	---	18500	---	1030	---	1580	1470	---
TOTAL	44261	66969	31796	45940	27730	141360	114730	55243	44959	28578	49461	30341
MEAN	1428	2232	1026	1482	990	4560	3824	1782	1499	922	1596	1011
MAX	4600	7240	2430	6000	1750	18500	12100	10800	4690	2360	5170	2570
MIN	650	606	640	550	700	560	1190	670	582	279	498	539

CAL YR 1985 TOTAL 580317 MEAN 1590 MAX 8200 MIN 74
WTR YR 1986 TOTAL 681368 MEAN 1867 MAX 18500 MIN 279

04292000 LAMOILLE RIVER AT JOHNSON, VT.

LOCATION.--Lat 44°37'22", long 72°40'50", Lamoille County, Hydrologic Unit 02010003, 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.

REVISED RECORDS.--WSP 894: Drainage area. WSP 1114: 1933, 1934(M). WSP 1237: 1912(M), 1930, 1932(M).

GAGE.--Water-stage recorder. Elevation of gage is 495 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 31, 1913, nonrecording gage at bridge 0.7 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 5 to Jan. 20, Feb. 4 to Mar. 13. Records good except for estimated daily discharges and shifting control, Oct. 1 to Nov. 6, which are fair. Some regulation by powerplant upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--60 years (water years 1912-13, 1929-86), 536 ft^3/s, 23.48 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.--Peak discharges above base of 5,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 31	0600	*8,100	*13.04	No other peak greater than base discharge.			

Minimum discharge, 51 ft^3/s, July 11.

DISCHARGE, IN CUBIC FEET PER SECOND WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	181	254	260	661	225	4250	305	361	242	285	304
2	407	175	585	230	435	220	4460	339	418	230	921	277
3	302	146	853	230	374	225	2950	354	382	235	579	227
4	229	155	543	225	320	230	2060	338	363	196	453	222
5	289	293	260	220	280	225	1550	335	232	246	321	224
6	710	671	265	225	320	230	1340	357	244	314	261	232
7	471	1050	265	270	290	225	1320	356	316	273	286	227
8	279	814	250	330	270	235	1520	455	343	243	471	223
9	286	563	230	300	265	240	1710	705	527	211	848	192
10	286	683	240	260	270	240	1340	539	362	125	645	172
11	310	828	225	265	260	265	1180	318	377	96	382	306
12	291	622	220	210	265	300	1300	318	420	144	169	650
13	347	866	225	250	260	350	1400	343	625	167	287	440
14	339	1340	210	300	250	381	1280	355	513	317	295	180
15	527	1520	220	350	240	866	1190	275	447	474	194	126
16	803	863	240	360	240	1680	1120	270	395	247	175	586
17	480	652	260	350	235	1450	1060	255	804	250	214	594
18	359	762	300	330	240	1160	951	204	571	252	266	428
19	385	800	320	315	235	1400	835	310	447	204	231	374
20	398	772	325	520	245	3120	731	356	411	146	212	332
21	348	685	310	1300	240	2010	688	316	322	157	244	302
22	286	588	305	937	235	1270	796	850	233	165	231	358
23	140	335	300	664	230	1010	652	2660	233	141	221	291
24	132	488	295	553	240	870	565	1560	222	128	458	505
25	230	491	305	458	240	802	435	1060	203	138	947	299
26	247	416	300	360	250	757	395	668	226	130	501	298
27	202	226	280	552	245	3040	303	547	209	146	892	251
28	192	243	275	1500	230	3340	466	515	181	146	1130	268
29	157	295	280	1120	---	3670	420	276	199	521	563	254
30	194	272	275	760	---	5480	313	250	229	631	373	771
31	205	---	275	719	---	6660	---	372	---	386	323	---
TOTAL	10054	17795	9490	14723	7865	42176	38580	16161	10815	7301	13378	9913
MEAN	324	593	306	475	281	1361	1286	521	361	236	432	330
MAX	803	1520	853	1500	661	6660	4460	2660	804	631	1130	771
MIN	132	146	210	210	230	220	303	204	181	96	169	126
CFSM	1.05	1.91	.99	1.53	.91	4.39	4.15	1.68	1.16	.76	1.39	1.06
IN.	1.21	2.14	1.14	1.77	.94	5.06	4.63	1.94	1.30	.88	1.61	1.19

CAL YR 1985 TOTAL 165728 MEAN 454 MAX 2870 MIN 83 CFSM 1.46 IN. 19.89
WTR YR 1986 TOTAL 198251 MEAN 543 MAX 6660 MIN 96 CFSM 1.75 IN. 23.79

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 mi².

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. Elevation of gage is 285 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 1, 1937, at site 3.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 4-9, Dec. 12 to Mar. 28. Records good except for estimated daily discharges, which are fair. Low flow regulated by powerplants upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--57 years, 1,244 ft³/s, 24.6 in/yr, adjusted to present drainage area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft³/s Apr. 18, 1982, gage height, 12.38 ft, from rating curve extended above 21,700 ft³/s on 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 ft³/s Sept. 26, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 19	1800	ice jam	*14.92	Mar. 31	1700	*14,100	10.10

Minimum discharge, 226 ft³/s Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	425	381	647	530	1300	540	10200	699	815	605	694	716
2	544	389	958	435	950	500	7830	695	1200	467	2000	642
3	790	340	1630	440	860	560	6620	703	907	503	1500	549
4	600	347	920	520	780	580	4300	689	756	606	897	468
5	473	419	840	450	730	540	3230	668	682	720	753	445
6	1070	1020	760	480	630	600	2700	716	558	1080	635	486
7	928	2100	740	450	740	600	2600	797	512	855	501	473
8	621	1960	740	500	660	500	2770	957	674	680	1180	432
9	494	1330	720	540	580	480	3570	1330	1380	526	2840	413
10	563	1520	680	490	570	560	3080	1170	846	405	2340	357
11	607	2140	705	450	610	630	2590	832	723	308	1500	569
12	692	1530	680	460	520	730	2600	711	935	283	836	1890
13	704	2310	530	360	630	900	2840	661	1220	385	585	1350
14	1030	4010	600	440	590	1100	2580	646	1290	567	615	798
15	1070	3940	400	420	540	2500	2470	631	890	1610	577	622
16	2180	2390	500	470	500	3500	2360	554	799	904	442	1090
17	1330	1700	590	450	410	3000	2320	538	2280	602	504	1750
18	873	1730	700	450	460	2600	2080	572	1620	499	475	1010
19	849	1740	600	500	480	4000	1830	522	996	442	582	869
20	1010	1690	520	700	520	6800	1580	608	806	402	442	769
21	830	1530	610	2800	540	4100	1480	699	695	319	408	743
22	734	1280	480	2100	550	2500	1710	2050	626	306	815	732
23	615	1040	500	1500	460	2000	1500	5820	464	319	611	743
24	439	1010	610	1200	500	1800	1140	4310	515	261	851	1140
25	428	1030	580	1000	540	1650	1020	2880	805	268	3050	1010
26	542	906	450	800	590	1550	967	1840	730	284	1840	708
27	518	752	440	1600	560	5500	948	1230	583	830	2120	678
28	442	711	480	3100	540	6600	767	942	556	478	3350	558
29	431	640	450	2200	---	7360	891	859	534	474	1760	588
30	380	710	470	1700	---	10100	781	717	532	1990	1040	1770
31	404	---	520	1650	---	13100	---	690	---	985	794	---
TOTAL	22616	42595	20050	29185	17340	87480	81354	36736	25929	18963	36537	24368
MEAN	730	1420	647	941	619	2822	2712	1185	864	612	1179	812
MAX	2180	4010	1630	3100	1300	13100	10200	5820	2280	1990	3350	1890
MIN	380	340	400	360	410	480	767	522	464	261	408	357
CFSM	1.06	2.07	.94	1.37	.90	4.11	3.95	1.73	1.26	.89	1.72	1.18
IN.	1.23	2.31	1.09	1.58	.94	4.74	4.41	1.99	1.41	1.03	1.98	1.32

CAL YR 1985 TOTAL 397784 MEAN 1090 MAX 7020 MIN 158 CFSM 1.59 IN. 21.57
WTR YR 1986 TOTAL 443153 MEAN 1214 MAX 13100 MIN 261 CFSM 1.77 IN. 24.03

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 mi².

PERIOD OF RECORD.--August 1931 to current year.

REVISED RECORDS.--WSP 924: 1940. WSP 1114: 1933(M), 1936-39.

GAGE.--Water-stage recorder. Elevation of gage is 580 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 4 to Jan. 27, Feb. 18 to Mar. 12, Mar. 27-29. Records good except for estimated daily discharges, 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.--55 years, 271 ft³/s, 28.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,290 ft³/s Apr. 18, 1982, gage height, 13.21 ft, from rating curve extended above 5,500 ft³/s on basis of computation of flow over dam at gage height 11.70 ft; minimum, 9.4 ft³/s Aug. 28, 1949; minimum daily, 11 ft³/s Aug. 28, 1949, Aug. 30, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,300 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 31	0530	*4,740	*9.88	No other peak greater than base discharge.			

Minimum discharge, 27 ft³/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	76	111	78	192	80	1820	141	189	123	103	88
2	105	73	397	76	177	78	2040	189	265	89	200	85
3	113	67	309	76	164	76	1130	154	141	110	141	72
4	78	54	150	74	142	76	728	133	111	129	90	69
5	159	97	140	72	134	78	530	135	92	148	72	67
6	398	452	130	70	127	76	454	172	84	139	61	83
7	188	910	120	66	114	76	506	189	76	112	60	61
8	116	428	115	60	113	68	635	285	135	94	193	63
9	101	258	110	64	110	70	775	317	173	64	291	55
10	207	629	105	68	105	72	541	198	101	66	303	58
11	323	541	100	64	102	125	459	158	95	58	172	560
12	164	300	96	66	101	350	489	145	126	52	136	1010
13	215	1120	98	66	99	302	625	129	288	59	95	446
14	333	859	96	64	96	198	538	110	239	174	71	249
15	471	534	88	62	92	448	501	101	143	339	58	167
16	757	302	98	56	94	931	483	97	108	138	57	306
17	288	317	98	58	76	654	487	134	360	96	73	321
18	182	454	92	76	92	506	438	147	189	67	64	188
19	213	402	90	96	100	743	391	117	127	61	68	148
20	203	396	92	235	110	1780	346	108	93	48	54	127
21	147	281	82	500	105	1000	362	124	76	61	49	156
22	120	213	82	420	92	541	399	384	69	54	54	149
23	106	191	86	270	82	453	266	911	66	54	59	160
24	101	175	92	165	86	345	216	460	87	50	309	254
25	110	160	96	110	84	266	204	332	359	41	1120	181
26	113	102	88	115	82	548	260	212	150	41	305	143
27	100	145	86	340	78	1950	250	151	118	174	557	105
28	82	123	84	775	78	1600	203	122	159	103	547	103
29	74	108	74	538	---	2240	175	95	112	129	235	106
30	76	123	74	367	---	3420	157	93	183	327	151	859
31	70	---	74	267	---	3830	---	94	---	150	115	---
TOTAL	5779	9890	3553	5414	3027	22980	16408	6137	4514	3350	5863	6439
MEAN	186	330	115	175	108	741	547	198	150	108	189	215
MAX	757	1120	397	775	192	3830	2040	911	360	339	1120	1010
MIN	66	54	74	56	76	68	157	93	66	41	49	55
CFSM	1.42	2.52	.88	1.34	.82	5.66	4.18	1.51	1.15	.82	1.44	1.64
IN.	1.64	2.81	1.01	1.54	.86	6.53	4.66	1.74	1.28	.95	1.66	1.83

CAL YR 1985 TOTAL 82396 MEAN 226 MAX 2000 MIN 18 CFSM 1.73 IN. 23.40
WTR YR 1986 TOTAL 93354 MEAN 256 MAX 3830 MIN 41 CFSM 1.95 IN. 26.51

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. Elevation of gage is 410 ft above National Geodetic Vertical Datum of 1929, 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.--Estimated daily discharges: Dec. 4 to Mar. 26. Records good except for estimated daily discharges, 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.--70 years, 926 ft^3/s, 26.25 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.--Peak discharges greater than base discharge of 7,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 20	0200	ice jam	*13.96	Mar. 31	0230	*11,100	12.28

Minimum discharge, 115 ft^3/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	348	284	442	260	720	280	8630	433	486	441	318	355
2	490	285	1030	255	640	270	6420	479	861	329	411	288
3	506	267	1320	255	580	270	5240	471	590	320	448	248
4	380	253	800	250	540	275	3470	411	421	427	321	214
5	407	265	720	260	500	280	2240	399	353	449	308	209
6	1070	828	600	270	460	280	1690	487	311	442	336	250
7	831	2450	540	250	440	285	1660	538	277	372	263	231
8	562	2200	510	230	420	260	1800	943	584	299	329	189
9	459	1270	490	220	410	270	2630	1200	874	246	509	174
10	885	2050	440	230	390	260	2270	956	503	199	812	155
11	1480	2540	420	230	370	320	1880	708	435	186	615	819
12	974	1610	390	235	365	1200	1890	567	484	170	481	3180
13	874	3270	370	240	360	1250	2390	474	597	173	354	2210
14	1180	3700	350	235	355	1200	2090	412	780	421	269	1450
15	1840	2480	330	230	340	2000	1810	360	528	871	218	915
16	2900	1570	350	220	320	3000	1600	343	393	549	246	950
17	1830	1360	350	210	310	3100	1450	449	710	350	213	1050
18	1110	1710	340	220	290	3100	1290	531	727	275	198	696
19	913	1580	320	350	300	4500	1140	507	446	221	178	520
20	861	1420	320	800	320	6500	986	445	348	202	161	471
21	675	1200	310	1800	340	4600	964	459	278	182	147	455
22	552	941	300	1300	350	3150	1070	1360	235	169	199	440
23	482	817	300	830	330	2200	861	2390	216	150	161	540
24	427	734	310	600	330	1650	680	1830	223	138	655	960
25	460	652	300	420	320	1200	602	1260	464	125	2580	746
26	471	584	300	400	310	2800	648	874	550	163	1380	569
27	444	620	305	1100	300	5790	691	619	383	254	1500	485
28	391	647	310	2750	290	5640	592	474	466	323	1820	419
29	357	580	290	2000	---	6700	517	398	473	298	1010	392
30	325	514	280	1500	---	9060	477	346	427	448	629	3020
31	306	---	260	1050	---	10700	---	327	---	488	449	---
TOTAL	24790	38681	13697	19200	11000	82390	59678	21450	14423	9680	17518	22600
MEAN	800	1289	442	619	393	2658	1989	692	481	312	565	753
MAX	2900	3700	1320	2750	720	10700	8630	2390	874	871	2580	3180
MIN	306	253	260	210	290	260	477	327	216	125	147	155
CFSM	1.67	2.69	.92	1.29	.82	5.55	4.15	1.44	1.00	.65	1.18	1.57
IN.	1.93	3.00	1.06	1.49	.85	6.40	4.63	1.67	1.12	.75	1.36	1.76

CAL YR 1985 TOTAL 319189 MEAN 874 MAX 7400 MIN 78 CFSM 1.82 IN. 24.79
WTR YR 1986 TOTAL 335107 MEAN 918 MAX 10700 MIN 125 CFSM 1.92 IN. 26.03

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 above 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, 7.43 ft Apr. 5, affected by seiche; minimum, 1.94 ft Oct. 5, affected by seiche.

GAGE HEIGHT (FEET) WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.00	2.31	3.21	2.49	2.94	2.67	7.00	5.38	4.30	3.53	3.12	3.43
2	2.07	2.27	3.24	2.45	2.97	2.64	7.20	5.26	4.29	3.47	3.18	3.41
3	2.08	2.23	3.29	2.45	2.98	2.63	7.34	5.18	4.26	3.42	3.20	3.38
4	2.08	2.18	3.33	2.43	2.97	2.61	7.39	5.08	4.19	3.37	3.24	3.28
5	2.06	2.22	3.31	2.39	2.98	2.60	7.39	4.94	4.15	3.38	3.25	3.20
6	2.11	2.31	3.31	2.38	2.98	2.59	7.27	4.91	4.10	3.39	3.23	3.23
7	2.13	2.33	3.27	2.35	2.97	2.57	7.24	4.83	4.02	3.38	3.26	3.22
8	2.10	2.36	3.25	2.34	2.95	2.55	7.24	4.79	3.97	3.36	3.32	3.18
9	2.07	2.42	3.23	2.30	2.94	2.54	7.23	4.73	3.95	3.34	3.38	3.11
10	2.12	2.50	3.20	2.31	2.92	2.52	7.21	4.65	3.90	3.28	3.44	3.06
11	2.11	2.59	3.18	2.27	2.90	2.51	7.15	4.60	3.90	3.24	3.46	3.03
12	2.12	2.58	3.17	2.21	2.89	2.52	7.10	4.55	3.90	3.20	3.48	3.05
13	2.08	2.68	3.11	2.23	2.86	2.54	7.03	4.45	3.87	3.16	3.46	3.09
14	2.14	2.81	3.12	2.21	2.83	2.59	7.00	4.34	3.93	3.15	3.43	3.12
15	2.20	3.00	3.06	2.20	2.82	2.73	6.91	4.23	3.92	3.20	3.38	3.10
16	2.30	3.08	3.02	2.16	2.80	2.92	6.86	4.15	3.91	3.21	3.36	3.13
17	2.39	3.13	2.99	2.13	2.79	3.14	6.77	4.11	3.94	3.20	3.37	3.13
18	2.37	3.24	2.96	2.11	2.78	3.33	6.67	4.04	3.97	3.17	3.37	3.10
19	2.42	3.25	2.92	2.11	2.76	3.58	6.57	4.02	3.98	3.15	3.36	3.08
20	2.47	3.30	2.91	2.15	2.73	4.18	6.44	3.99	3.96	3.08	3.34	3.09
21	2.50	3.37	2.87	2.27	2.75	4.68	6.31	3.97	3.93	3.06	3.28	3.08
22	2.49	3.40	2.80	2.39	2.77	4.95	6.27	4.04	3.87	3.04	3.29	3.04
23	2.49	3.42	2.76	2.52	2.76	5.08	6.20	4.22	3.82	3.02	3.26	3.01
24	2.42	3.42	2.73	2.58	2.75	5.18	6.09	4.38	3.80	2.97	3.22	3.04
25	2.45	3.40	2.74	2.56	2.74	5.23	6.00	4.46	3.75	2.89	3.25	3.07
26	2.46	3.39	2.70	2.68	2.72	5.27	5.90	4.48	3.71	2.90	3.31	3.08
27	2.42	3.37	2.62	2.79	2.71	5.56	5.81	4.47	3.65	2.99	3.35	3.07
28	2.41	3.37	2.63	2.82	2.69	5.91	5.70	4.45	3.63	3.01	3.43	3.03
29	2.38	3.34	2.57	2.87	---	6.15	5.60	4.40	3.58	3.00	3.48	2.98
30	2.34	3.31	2.56	2.91	---	6.40	5.50	4.38	3.56	3.05	3.45	3.06
31	2.33	---	2.47	2.93	---	6.74	---	4.34	---	3.10	3.44	---
MEAN	2.26	2.89	2.98	2.42	2.84	3.78	6.68	4.51	3.92	3.18	3.34	3.13
MAX	2.50	3.42	3.33	2.93	2.98	6.74	7.39	5.38	4.30	3.53	3.48	3.43
MIN	2.00	2.18	2.47	2.11	2.69	2.51	5.50	3.97	3.56	2.89	3.12	2.98

CAL YR 1985 MEAN 3.16 MAX 5.24 MIN 1.76
WTR YR 1986 MEAN 3.49 MAX 7.39 MIN 2.00

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY
(National stream-quality accounting 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. Telephone gage-height telemeter at station.

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, 100.61 ft Apr. 6; minimum, 94.77 ft Oct. 1.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94.93	95.10	96.33	95.31	95.78	95.52	99.95	98.31	97.10	96.35	95.94	96.30
2	94.92	95.11	96.18	95.31	95.80	95.49	99.98	98.05	97.02	96.35	96.08	96.24
3	94.92	95.15	96.00	95.21	95.80	95.47	100.13	97.91	97.10	96.25	96.11	96.23
4	95.00	95.14	96.14	95.24	95.81	95.45	100.17	97.90	97.13	96.28	96.13	96.44
5	95.06	94.95	96.16	95.25	95.82	95.43	100.15	97.90	96.96	96.25	96.14	96.33
6	95.01	95.04	96.10	95.21	95.79	95.42	100.44	97.73	96.90	96.25	96.15	96.10
7	94.99	95.22	96.14	95.18	95.79	95.44	100.20	97.67	96.92	96.25	96.16	96.03
8	95.20	95.25	96.08	95.19	95.79	95.40	100.14	97.59	96.91	96.20	96.19	96.01
9	95.03	95.25	96.04	95.23	95.78	95.38	100.04	97.52	96.74	96.13	96.25	96.04
10	94.93	95.25	96.03	95.14	95.76	95.42	100.02	97.50	96.79	96.06	96.35	96.01
11	94.90	95.27	95.97	95.15	95.74	95.36	99.98	97.37	96.73	96.04	96.36	96.09
12	94.96	95.66	95.96	95.15	95.72	95.35	99.93	97.28	96.80	96.05	96.33	96.05
13	95.19	95.46	96.05	95.01	95.71	95.38	99.89	97.26	96.92	96.14	96.34	95.99
14	94.98	95.59	95.91	95.03	95.69	95.43	99.78	97.23	96.79	96.08	96.32	95.92
15	95.08	95.73	96.04	95.04	95.67	95.56	99.70	97.21	96.80	96.06	96.40	95.92
16	95.13	96.10	95.89	95.04	95.64	95.77	99.61	97.10	96.89	96.08	96.32	95.90
17	95.21	96.17	95.84	95.06	95.63	95.98	99.50	96.97	96.71	96.06	96.23	95.93
18	95.49	96.09	95.79	94.98	95.61	96.19	99.44	96.94	96.78	96.04	96.14	96.05
19	95.31	96.31	95.77	94.96	95.59	96.49	99.38	96.78	96.79	96.01	96.08	95.95
20	95.26	96.29	95.70	94.98	95.59	96.95	99.31	96.83	96.73	96.11	96.11	95.88
21	95.33	96.17	95.68	95.11	95.58	97.52	99.29	96.82	96.76	95.90	96.23	95.86
22	95.38	96.18	95.74	95.29	95.59	97.81	98.99	96.84	96.79	95.90	96.11	95.91
23	95.38	96.22	95.69	95.33	95.59	97.95	98.91	97.01	96.75	95.87	96.30	95.94
24	95.59	96.24	95.62	95.40	95.58	97.97	98.85	97.17	96.68	95.91	96.11	95.92
25	95.30	96.19	95.52	95.54	95.57	98.08	98.77	97.28	96.57	95.94	96.00	95.90
26	95.30	96.20	95.57	95.51	95.56	98.15	98.66	97.33	96.56	95.82	96.19	95.91
27	95.34	96.16	95.64	95.59	95.54	98.35	98.60	97.33	96.59	95.80	96.30	95.84
28	95.13	96.11	95.51	95.64	95.53	98.73	98.52	97.25	96.48	95.80	96.26	95.91
29	95.17	96.14	95.51	95.71	---	99.01	98.43	97.28	96.43	95.84	96.31	95.97
30	95.20	96.13	95.40	95.74	---	99.27	98.33	97.20	96.36	95.88	96.38	96.00
31	95.14	---	95.48	95.76	---	99.55	---	97.13	---	95.91	96.32	---
MEAN	95.15	95.73	95.85	95.27	95.68	96.62	99.50	97.34	96.78	96.05	96.21	96.02
MAX	95.59	96.31	96.33	95.76	95.82	99.55	100.44	98.31	97.13	96.35	96.40	96.44
MIN	94.90	94.95	95.40	94.96	95.53	95.35	98.33	96.78	96.36	95.80	95.94	95.84

CAL YR 1985 MEAN 96.01 MAX 98.11 MIN 94.57
WTR YR 1986 MEAN 96.35 MAX 100.44 MIN 94.90

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), 1983-86 (b).
MINOR ELEMENTS DATA: 1974-86 (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), 1983-86 (b).
BIOLOGICAL DATA:
Bacteria--1974 (a), 1975-82 (c), 1983-86 (b).
Phytoplankton--1974 (a), 1975-78 (c), 1979 (b), 1980-81 (c).
Periphyton--1975 (c), 1976-80 (b).
SEDIMENT DATA: 1975-82 (c), 1983-86 (b).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (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)	HARDNESS (MG/L AS CACO3)
OCT											
16...	1100	145	7.40	12.5	1.0	760	9.8	92	28	K1	63
APR											
23...	1000	143	7.62	6.0	1.6	765	12.4	99	<1	<1	55
MAY											
21...	1000	149	8.02	13.0	1.5	760	11.4	108	K3	<1	52
AUG											
07...	1130	126	8.42	22.5	2.5	760	8.6	100	K130	47	53

DATE	HARDNESS NONCARB WH WAT TOT FLD 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 WH WAT TOTAL FIELD MG/L AS CACO3	BICARBONATE WH WAT TOTAL FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT											
16...	13	18	4.3	6.8	1.3	50	61	13	9.3	<0.10	0.4
APR											
23...	9	16	3.7	6.0	1.2	46	56	12	8.9	<0.10	1.4
MAY											
21...	9	15	3.6	7.9	1.2	43	52	14	9.1	0.10	0.3
AUG											
07...	3	15	3.7	6.0	1.1	50	56	13	8.6	<0.10	1.1

DATE	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 TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)
OCT											
16...	87	83	<0.100	<0.010	<0.010	0.40	0.010	<0.010	<0.010	<10	<1
APR											
23...	83	77	0.260	0.020	0.020	0.40	0.030	0.020	<0.010	10	<1
MAY											
21...	82	77	0.140	0.020	0.020	0.40	0.010	0.010	<0.010	--	--
AUG											
07...	83	76	<0.100	<0.010	<0.010	0.40	0.020	0.010	<0.010	<10	<1

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 1985 TO SEPTEMBER 1986

DATE	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)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 16...	12	1	<1	3	<3	2	7	<1	<4	2
APR 23...	12	<0.5	1	<1	<3	4	14	<1	<4	<1
MAY 21...	--	--	--	--	--	--	--	--	--	--
AUG 07...	11	<0.5	<1	<1	<3	2	7	<5	<4	6

DATE	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 16...	<0.1	<10	<1	<1	<1	84	<6	13
APR 23...	<0.1	<10	1	<1	1	77	<6	16
MAY 21...	--	--	--	--	--	--	--	--
AUG 07...	<0.1	<10	<1	<1	<1	73	<6	23

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 16...	1100	1	75	MAY 21...	1000	1	38
APR 23...	1000	1	85	AUG 07...	1130	6	89

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 above 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, 11.12 ft Apr. 3, 4, affected by seiche; minimum gage height, 7.84 ft Mar. 11, 13, 14, affected by seiche.

GAGE HEIGHT (FEET) WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.20	8.21	9.25	8.67	9.21	8.20	10.70	9.86	9.81	9.25	9.31	8.92
2	8.24	8.18	9.28	8.66	9.25	8.15	10.96	9.89	9.88	9.23	9.35	8.88
3	8.22	8.16	9.36	8.67	9.27	8.11	11.09	9.90	9.78	9.24	9.38	8.83
4	8.20	8.11	9.30	8.67	9.27	8.07	11.09	9.82	9.69	9.21	9.39	8.73
5	8.22	8.15	9.28	8.66	9.24	8.03	11.01	9.76	9.67	9.22	9.35	8.65
6	8.29	8.23	9.27	8.64	9.17	7.99	10.86	9.78	9.64	9.22	9.33	8.66
7	8.30	8.32	9.23	8.62	9.10	7.96	10.73	9.75	9.57	9.22	9.32	8.64
8	8.28	8.43	9.22	8.60	9.02	7.91	10.60	9.84	9.55	9.21	9.36	8.60
9	8.27	8.50	9.20	8.58	8.93	7.89	10.50	9.90	9.62	9.22	9.40	8.53
10	8.32	8.63	9.17	8.55	8.84	7.87	10.38	9.82	9.54	9.20	9.45	8.47
11	8.37	8.77	9.14	8.53	8.80	7.86	10.26	9.74	9.51	9.15	9.50	8.50
12	8.34	8.79	9.12	8.51	8.77	7.86	10.26	9.69	9.47	9.10	9.48	8.62
13	8.31	8.94	9.09	8.49	8.74	7.85	10.27	9.64	9.42	9.08	9.44	8.70
14	8.36	9.09	9.08	8.47	8.70	7.85	10.28	9.58	9.45	9.12	9.41	8.73
15	8.43	9.26	9.05	8.44	8.67	7.93	10.26	9.54	9.45	9.21	9.35	8.71
16	8.54	9.24	9.02	8.42	8.62	7.99	10.23	9.51	9.42	9.20	9.32	8.74
17	8.57	9.31	8.99	8.40	8.59	8.08	10.19	9.51	9.50	9.21	9.31	8.71
18	8.50	9.40	8.95	8.37	8.56	8.17	10.14	9.48	9.44	9.21	9.33	8.66
19	8.53	9.42	8.91	8.36	8.54	8.34	10.10	9.51	9.39	9.20	9.35	8.64
20	8.59	9.47	8.88	8.38	8.50	8.45	10.04	9.46	9.37	9.15	9.29	8.63
21	8.54	9.53	8.85	8.44	8.49	8.57	9.96	9.44	9.34	9.20	9.21	8.64
22	8.49	9.52	8.83	8.51	8.47	8.66	9.97	9.56	9.31	9.13	9.20	8.62
23	8.45	9.51	8.81	8.57	8.44	8.73	9.94	9.67	9.30	9.11	9.07	8.61
24	8.38	9.50	8.80	8.60	8.40	8.75	9.93	9.78	9.30	9.07	9.10	8.63
25	8.39	9.50	8.80	8.61	8.36	8.73	9.91	9.84	9.34	9.05	9.12	8.62
26	8.36	9.44	8.78	8.70	8.32	8.75	9.94	9.87	9.28	9.08	9.03	8.59
27	8.31	9.40	8.77	8.88	8.28	8.88	9.94	9.88	9.24	9.13	9.04	8.58
28	8.37	9.39	8.75	8.95	8.24	9.07	9.92	9.91	9.29	9.10	9.08	8.55
29	8.31	9.34	8.73	9.03	---	9.33	9.92	9.84	9.30	9.13	9.04	8.54
30	8.24	9.30	8.72	9.10	---	9.73	9.91	9.85	9.30	9.28	8.98	8.68
31	8.23	---	8.69	9.16	---	10.29	---	9.82	---	9.32	8.96	---
MEAN	8.36	8.97	9.01	8.62	8.74	8.39	10.31	9.72	9.47	9.18	9.27	8.65
MAX	8.59	9.53	9.36	9.16	9.27	10.29	11.09	9.91	9.88	9.32	9.50	8.92
MIN	8.20	8.11	8.69	8.36	8.24	7.85	9.91	9.44	9.24	9.05	8.96	8.47

CAL YR 1985 MEAN 8.82 MAX 9.73 MIN 7.38
WTR YR 1986 MEAN 9.06 MAX 11.09 MIN 7.85

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. Elevation of gage is 725 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 4 to Jan. 20, Mar. 6-13. Records good except for estimated daily discharges and shifting control, May 24 to July 30, which are fair. Occasional diurnal fluctuation at low flow by mill upstream; greater regulation prior to 1960.

AVERAGE DISCHARGE.--35 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.--Peak discharges above base of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 30	2345	*2,920	*7.33	No other peak greater than base discharge.			

Minimum discharge, 34 ft^3/s July 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	56	103	74	222	83	2010	107	145	69	116	95
2	64	54	221	74	183	79	1630	112	194	59	151	84
3	82	54	259	74	157	78	1260	115	163	59	183	78
4	74	53	160	74	142	78	968	104	121	60	148	73
5	73	64	135	74	133	79	768	103	104	59	155	71
6	173	178	120	76	123	80	636	117	95	60	94	74
7	145	432	110	76	117	78	574	132	89	60	81	83
8	89	301	100	76	113	76	552	176	94	54	213	74
9	72	188	100	76	110	76	547	219	151	47	427	67
10	72	263	95	74	107	76	509	161	126	43	390	62
11	80	306	94	72	103	84	464	123	100	40	246	167
12	75	212	94	72	100	94	448	110	112	39	156	452
13	82	420	92	72	98	105	452	101	159	43	114	332
14	134	490	92	70	96	116	411	91	183	69	93	185
15	185	406	90	70	94	255	382	83	126	141	81	123
16	325	282	88	70	93	476	349	79	97	103	76	199
17	204	230	86	70	90	492	319	85	150	69	83	281
18	120	298	84	70	95	454	287	97	213	55	108	185
19	102	294	80	72	98	580	255	86	127	48	214	129
20	104	279	80	105	95	1050	224	95	91	44	115	113
21	91	240	78	283	92	925	204	152	77	43	88	129
22	78	184	78	290	90	720	212	264	69	41	87	136
23	72	163	78	240	92	568	198	557	66	38	86	120
24	68	153	78	177	90	458	172	621	70	36	133	147
25	68	143	76	129	90	394	153	536	72	35	241	141
26	77	137	76	106	89	393	147	394	68	46	180	110
27	74	124	76	200	87	1060	147	222	65	66	214	95
28	67	110	76	418	84	1080	134	169	70	71	366	87
29	62	105	76	385	---	1240	120	143	72	114	288	82
30	59	108	76	310	---	1960	113	131	78	534	163	246
31	57	---	74	261	---	2690	---	132	---	211	112	---
TOTAL	3084	6327	3125	4290	3083	15977	14645	5617	3347	2456	5202	4220
MEAN	99.5	211	101	138	110	515	488	181	112	79.2	168	141
MAX	325	490	259	418	222	2690	2010	621	213	534	427	452
MIN	56	53	74	70	84	76	113	79	65	35	76	62
CFSM	.82	1.73	.83	1.13	.90	4.22	4.00	1.48	.92	.65	1.38	1.16
IN.	.94	1.93	.95	1.31	.94	4.87	4.47	1.71	1.02	.75	1.59	1.29

CAL YR 1985 TOTAL 62499 MEAN 171 MAX 1030 MIN 27 CFSM 1.40 IN. 19.06
WTR YR 1986 TOTAL 71373 MEAN 196 MAX 2690 MIN 35 CFSM 1.61 IN. 21.76

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 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	ALKA-LINITY LAB (MG/L AS CACO3)	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)
NOV											
15...	1230	387	60	--	--	2.5	--	--	--	--	--
DEC											
17...	0900	85	195	8.35	-7.0	0.0	77	1.3	14.5	102	28
JAN											
02...	0915	74	170	--	--	0.0	--	--	--	--	--
31...	1100	260	132	7.25	-7.0	0.0	45	1.3	14.0	98	57
FEB											
07...	0930	120	148	--	--	0.0	--	--	--	--	--
MAR											
12...	1100	94	175	--	--	0.0	--	--	--	--	--
26...	0730	310	155	7.87	5.0	0.0	56	2.7	14.4	100	27
APR											
16...	1300	358	128	--	--	10.5	--	--	--	--	--
MAY											
20...	1050	86	198	8.19	16.5	17.5	81	1.8	10.0	107	67
30...	1115	130	190	--	--	19.0	--	--	--	--	--
JUL											
11...	0900	41	240	--	--	15.5	--	--	--	--	--
15...	1500	138	220	8.02	24.0	19.5	86	3.5	9.5	--	750
AUG											
25...	1330	253	185	--	--	15.5	--	--	--	--	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV											
15...	--	--	--	--	--	--	--	--	--	--	--
DEC											
17...	12	30	4.3	3.5	0.90	12	5.8	<1.0	6.4	103	110
JAN											
02...	--	--	--	--	--	--	--	--	--	--	--
31...	190	19	2.8	2.8	1.2	11	5.7	<0.10	5.7	79	76
FEB											
07...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	--	--	--	--	--	--	--	--	--	--	--
26...	21	22	3.0	3.5	1.2	11	6.2	<0.10	6.1	97	87
APR											
16...	--	--	--	--	--	--	--	--	--	--	--
MAY											
20...	120	29	4.3	4.1	0.90	11	6.3	<0.10	2.4	110	110
30...	--	--	--	--	--	--	--	--	--	--	--
JUL											
11...	--	--	--	--	--	--	--	--	--	--	--
15...	64	31	4.6	4.1	1.4	11	6.0	<0.10	4.9	119	110
AUG											
25...	--	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SEDIMENT, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (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, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
NOV										
15...	--	--	--	--	--	--	--	--	--	--
DEC										
17...	--	--	0.410	0.041	0.050	0.06	0.30	<0.010	<0.010	<0.010
JAN										
02...	--	--	--	--	--	--	--	--	--	--
31...	--	--	0.490	0.070	0.090	0.12	0.50	0.021	0.010	<0.010
FEB										
07...	--	--	--	--	--	--	--	--	--	--
MAR										
12...	--	--	--	--	--	--	--	--	--	--
26...	63	21	0.560	0.090	0.090	0.12	0.40	0.020	0.020	0.010
APR										
16...	--	--	--	--	--	--	--	--	--	--
MAY										
20...	49	17	0.130	<0.010	<0.010	0.01	0.40	0.020	0.020	0.010
30...	--	--	--	--	--	--	--	--	--	--
JUL										
11...	--	--	--	--	--	--	--	--	--	--
15...	25	78	0.190	0.021	0.021	0.03	0.60	0.021	0.010	<0.010
AUG										
25...	--	--	--	--	--	--	--	--	--	--

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV										
15...	--	--	--	--	--	--	--	--	--	--
DEC										
17...	10	<1	9	<0.5	<10	<1	<3	4	130	2
JAN										
02...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
FEB										
07...	--	--	--	--	--	--	--	--	--	--
MAR										
12...	--	--	--	--	--	--	--	--	--	--
26...	10	<1	10	<0.5	<1	<1	<3	3	66	1
APR										
16...	--	--	--	--	--	--	--	--	--	--
MAY										
20...	20	1	11	<0.5	<1	<1	<3	1	93	3
30...	--	--	--	--	--	--	--	--	--	--
JUL										
11...	--	--	--	--	--	--	--	--	--	--
15...	30	1	10	<0.5	<1	<1	<3	6	130	<5
AUG										
25...	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
15...	--	--	--	--	--	--	--	--	--	--
DEC										
17...	<4	41	<0.1	<10	<1	<1	<1	140	<6	7
JAN										
02...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
FEB										
07...	--	--	--	--	--	--	--	--	--	--
MAR										
12...	--	--	--	--	--	--	--	--	--	--
26...	<4	20	<0.1	<10	<1	<1	<1	110	<6	3
APR										
16...	--	--	--	--	--	--	--	--	--	--
MAY										
20...	<4	33	<0.1	<10	1	<1	<1	150	<6	3
30...	--	--	--	--	--	--	--	--	--	--
JUL										
11...	--	--	--	--	--	--	--	--	--	--
15...	<4	34	1.4	<10	3	<1	<1	62	<6	31
AUG										
25...	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

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 above 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.--No estimated daily discharges. 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.--67 years (water years 1910-19, 1921, 1923-24, 1929-35, 1939-86), 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, 1,650 ft^3/s Apr. 2; minimum daily, 32 ft^3/s Nov. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	57	66	119	339	112	1470	277	345	93	251	248
2	39	32	206	136	308	114	1650	285	329	76	298	248
3	43	32	181	127	308	144	1580	306	230	53	386	238
4	63	98	154	112	302	146	1430	255	215	51	388	125
5	40	71	172	94	300	148	1220	268	222	58	389	145
6	50	76	212	138	280	144	1040	248	225	43	390	146
7	87	223	126	130	206	153	917	272	125	48	388	150
8	86	231	178	141	123	196	838	271	150	64	389	122
9	47	232	182	118	162	108	783	299	230	50	387	90
10	68	233	182	98	198	158	755	296	124	50	386	115
11	211	303	148	92	205	250	734	290	145	48	385	87
12	57	305	148	40	162	190	722	355	177	34	288	86
13	85	303	205	123	163	141	710	250	183	36	295	87
14	78	299	177	167	174	137	684	248	136	73	386	91
15	83	301	93	180	109	140	651	248	137	72	383	177
16	155	302	132	156	124	275	622	246	181	143	295	160
17	128	298	102	97	119	308	599	198	134	74	294	161
18	100	297	122	46	144	253	587	148	145	57	295	141
19	75	299	134	81	159	328	577	202	147	56	218	246
20	60	310	150	122	180	368	559	242	149	50	166	162
21	126	311	102	121	164	365	527	178	122	80	151	180
22	133	307	77	116	96	435	500	168	123	79	144	177
23	156	300	142	144	82	444	476	367	124	62	225	243
24	80	303	97	124	134	446	462	304	114	73	243	172
25	94	294	90	100	142	449	449	388	94	67	290	177
26	40	303	142	139	145	452	445	385	91	57	338	245
27	44	302	129	319	148	466	428	384	92	48	174	140
28	85	297	100	296	140	567	444	383	78	55	239	147
29	72	214	82	298	---	717	403	382	64	55	237	220
30	92	197	122	323	---	924	299	386	95	238	276	225
31	91	---	117	413	---	1240	---	383	---	249	240	---
TOTAL	2606	7130	4270	4710	5116	10318	22561	8912	4726	2292	9214	4951
MEAN	84.1	238	138	152	183	333	752	287	158	73.9	297	165
MAX	211	311	212	413	339	1240	1650	388	345	249	390	248
MIN	38	32	66	40	82	108	299	148	64	34	144	86

CAL YR 1985 TOTAL 73285 MEAN 201 MAX 751 MIN 18
WTR YR 1986 TOTAL 86806 MEAN 238 MAX 1650 MIN 32

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 1986

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					
‡01075000	Pemigewasset River at Woodstock, N. H.	Lat 43°58'34", long 71°40'48", Grafton County, 0.2 mi east of Woodstock and 0.7 mi upstream from Eastman Brook.	193	1940-77†, 1978-80, 1985-86	3-31-86	6.89	4,250
‡01076000	Baker River near Rumney, N.H.	Lat 43°47'46", long 71°50'42", Grafton County, 0.3 mi upstream from Halls Brook, and 1.8 mi southwest of Rumney.	143	1929-77† 1978-81, 1985-86	3-31-86	5.61	2,899
‡01081500	Merrimack River at Franklin Junction, N.H.	Lat 43°25'26", long 71°50'12", Merrimack County at Franklin Junction, N. H., 1 mi downstream from confluence of Pemigewasset and Winnipesaukee Rivers.	1,507	1903-78† 1983-86	3-31-86	15.34	20,500
‡01082000	Contoocook River at Peterborough, N. H.	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†, 1978-86	3-20-86	4.72	1,340
‡01091500	Piscataquog River near Goffstown, N. H.	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, N. H.	202	1939-78†, 1983-86	6-20-86	5.90	1,077
‡01094000	Souhegan River at Merrimack, N. H.	Lat 42°51'27", long 71°30'24", Hillsborough County, at head of Wildcat Falls, 1.5 mi upstream from mouth.	171	1909-76†, 1979-86	1-31-86	8.22	4,080
		Connecticut River basin					
‡01145000	Mascoma River at West Canaan, N. H.	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† 1985-86	3-21-86	6.53	1,940

† Operated as a continuous-record gaging station.
‡ Also a miscellaneous site.

Special study and miscellaneous sites

Discharge measurements in the following table were made at special study and miscellaneous sites throughout New Hampshire.

Discharge measurements made at special study and miscellaneous sites during water year 1986

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Piscataqua River Basin						
01073830 Bailey Brook	Atlantic Ocean	Lat 42°59'25", long 70°47'48", Rockingham County, downstream side of bridge at culvert on West Road, 0.15 mi south of intersection with Garland Road, 0.36 mi north of intersection with South Road, 1.82 mi southwest of Rye, N.H.	--	--	10-21-84	0.15
01073835 Bailey Brook	do	Lat 42°59'20", long 70°46'37', Rockingham County, downstream side of bridge at culvert on Love Lane, 0.22 mi southwest of intersection with Central Road, 0.60 mi northwest of intersection with South Road, 1.7 mi south Rye, N.H.	--	--	10-21-86	.35
Merrimack River basin						
††01075000 Pemigewasset River	do	Lat 43°58'34", long 71°40'48", Grafton County, 0.2 mi east of Woodstock, and 0.7 mi upstream from Eastman Brook.	193	1940-77‡, 1978-85	10-17-85 5-28-86	874 625
††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.	143	1929-77‡, 1978-85	10-17-85 4- 8-86 8-27-86	375 785 161
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.	96.4	1974-76, 1985-85	4- 3-86	1,280
01080500 Lake Winnipesaukee Outlet	Merrimack River	Lat 43°32'57", long 71°27'54", Belknap County, 100 ft upstream from dam at outlet of Lake Winnipesaukee at Lakeport.	363	1933-83‡, 1984-85	11-14-85 2-15-86 5-15-86 8- 9-86 8- 9-86 8-22-86	187 993 218 268 1,240 798
††01082000 Contoocook River	do	Lat 42°51'45", long 71°57'35", Hillsborough County, 1,100 ft downstream from milldam, 1 mi south of Peterborough, and 1.5 mi upstream from Nubanusit Brook.	68.1	1945-77‡, 1978-85	9-15-86	33.7
01088000 Contoocook River	do	Lat 43°15'00", long 71°37'15", Merrimack County, at bridge on Penacook Road at Riverhill, 2.5 mi southwest of Penacook, and 3.0 mi upstream from mouth.	766	1929-74‡ 1978-84	3-27-86	5,910
††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.	202	1939-78‡, 1979-85	11-15-85 11-20-85 4- 2-86 5- 8-86 9-19-86	506 632 929 194 21.5
††01094000 Souhegan River	do	Lat 42°51'27", long 71°30'24", Hillsborough County, at head of Wildcat Falls at Merrimack, 1.5 mi upstream from mouth.	171	1909-76‡ 1979-85	11-15-85 4- 2-86	417 498
010965844 Beaver Brook	do	Lat 42°50'21", long 71°21'00", Rockingham County, downstream side of Kendall Pond outlet right on the Windham-Londonderry town line, 0.01 mi south of the intersection between South Road and Kendall Pond Road, 3.45 mi northwest of Windham, N.H.	--	--	10-21-86	6.71
010965846 Beaver Brook	do	Lat 42°49'40", long 71°20'51", Rockingham County, 50 ft behind house number sixteen Pleasant Drive, 0.06 mi due east of intersection between Pleasant Drive and Tranquil Road, measuring site is also Windham-Londonderry town line, 2.9 mi northwest of Windham, N.H.	--	--	10-21-86	8.88

See footnotes at end of table.

Discharge measurements made at special study and miscellaneous sites during water year 1986--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Merrimack River Basin--Continued				
010965848 Beaver Brook tributary	Beaver Brook	Lat 42°49'02", long 71°20'41", Rockingham County, 50 ft upstream from mouth of tributary to Beaver Brook, 0.07 mi north of Sirod Road, 0.15 mi west of intersection between tributary and Kendall Pond Road, 2.45 mi northwest of Windham, N.H.	--	--	10-21-86	0.99
01096585 Beaver Brook	Merrimack River	Lat 42°48'23", long 71°21'12", Rockingham County, 20 ft upstream from bridge at the intersection of N.H. Highway Route 128 and Anderson Road, 0.28 mi north of the intersection between N.H. Highway's Route 128 and Route 111, 2.73 mi west of Windham, N.H.	--	1975-76	10-21-86	11.3
010965851 Beaver Brook	do	Lat 42°47'25", long 71°21'53", Rockingham County, upstream from side of bridge on Bridle Bridge Road, at the Windham-Hudson town line, 0.45 mi west of N.H. State Highway Route 128, 3.6 mi southwest of Windham, N.H.	--	--	10-21-86	11.5
010965852 Beaver Brook	do	Lat 42°46'59", long 71°21'14", Rockingham County, 100 ft downstream from bridge on N.H. State Highway Route 128, at the Pelham-Windham town line, 0.23 mi south of intersection with Glance Road, 3.26 mi southwest of Windham, N.H.	--	--	10-21-86	13.0
011005034 Taylor Brook	Spicket River	Lat 42°52'20", long 71°13'47", Rockingham County, 50 ft upstream from bridge on Island Pond Road, 0.3 mi northwest of intersection with North Shore Road, 5.42 mi southeast of Derry, N.H.	--	--	10-26-86	1.07
011005038 Taylor Brook	do	Lat 42°52'10", long 71°13'27", Rockingham County, upstream from side of culvert on North Shore Road, 0.12 mi east of intersection with Island Pond Road, 5.75 mi southeast of Derry, N.H.	--	--	10-20-86	.71
01100520 Spicket River	Merrimack River	Lat 42°48'08", long 71°11'46", Rockingham County, downstream from side of bridge on Town Farm Road, 0.01 mi east of Bluff Street Extension, 0.27 mi east of North Main Street, 0.96 mi north of Salem, N.H.	--	1975-76	10-21-86	89.3
01100529 Hittytity Brook	Spicket River	Lat 42°48'53", long 71°14'25", Rockingham County, downstream from side of culvert on Shadow Lake Road (Route 111), 0.07 mi east of the Windham-Salem, N.H. town line, 0.24 mi northeast of the intersection with Doiron Road, 2.7 mi northwest of Salem, N.H.	--	--	10-20-86	.07
01100530 Hittytity Brook	do	Lat 42°48'18", long 71°13'07", Rockingham County, downstream 100 ft from culvert on Bluff Road, 0.07 mi west of intersection with Zion's Hill Road, 0.46 mi east of intersection with Scotland Avenue, 1.42 mi northwest of Salem, N.H.	--	1975-76	10-20-86	.94
01100535 Widow Harris Brook	do	Lat 42°47'58", long 71°11'58", Rockingham County, at culvert on North Main Street, 0.03 mi northwest of intersection with Town Farm Road, 0.23 mi southeast of intersection with Bluff Street, 0.74 mi north of Salem, N.H.	--	1975-76	10-20-86	4.17
011005372 Spicket River	Merrimack River	Lat 42°47'16", long 71°12'01", Rockingham County, at culvert on Bridge Street, 0.07 mi southeast of intersection with Route 97 (Main Street), 0.08 mi northwest of intersection with Douglas Drive, 0.07 mi southeast of Salem, N.H.	--	--	10-20-86	102
011005379 Spicket River tributary	Spicket River	Lat 42°46'11", long 71°12'06", Rockingham County, at culvert of Ackerman Street, 0.1 mi northwest of intersection with Williams Street, 1.3 mi south of Salem, N.H.	--	--	10-20-86	0

See footnotes at end of table.

Discharge measurements made at special study and miscellaneous sites during water year 1986--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Merrimack River Basin--Continued				
01100538 Spicket River	Merrimack River	Lat 42°46'07", long 71°12'08", Rockingham County, upstream from side of bridge on Lawrence Road, 0.27 mi northwest of intersection with Tyler Street, 1.36 mi south of Salem, N.H.	--	1976	10-20-86	90.3
01100540 Spicket River	do	Lat 42°45'15", long 71°12'32", Rockingham County, downstream from side of bridge on N.H. State Highway 28, 0.18 mi southeast of intersection with Kelly Road, 2.37 mi southwest of Salem, N.H.	--	1975-76	10-20-86	90.5
01100673 Little River	do	Lat 42°51'26", long 71°05'05", Rockingham County, at culvert on Crane Crossing Road, 0.09 mi south of the Kingston/Plaistow town line, 1.57 mi northeast of Plaistow, N.H.	--	--	10-20-86	8.22
01100674 Little River tributary	Little River	Lat 42°51'12", long 71°04'55", Rockingham County, at culvert on Boston and Maine railroad track, 0.38 mi southwest of intersection with Whittier Street Extension, 2.7 mi soutwest of Newton, N.H.	--	--	10-20-86	2.44
01100675 Kelly Brook	do	Lat 42°51'15", long 71°06'03", Rockingham County, at culvert on Route 125, 0.18 mi southwest of intersection with Old County Road and Route 125, 1.26 mi northwest of Plaistow, N.H.	--	1976	10-20-86	.81
01100676 Little River	Merrimack River	Lat 42°50'37", long 71°06'07", Rockingham County, downstream side of bridge on North Main Street, 0.32 mi southeast of intersection with Route 125, 0.6 mi northwest of Plaistow, N.H.	--	--	10-20-86	3.35
		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 Canaan and at mile 19.3.	80.5	1939-78‡, 1979-85	10-21-86 5-23-86	99.6 176
		St. Lawrence River Basin				
04285050 North Branch Winooski River	Winooski River	Lat 44°18'34", long 72°34'34", Washington County, 100 ft downstream from outlet Wrightsville Detention Reservoir, and 10 ft upstream from hydroelectric unit number 1. 0.3 mi downstream from Long Meadow Brook, and 4.2 mi upstream from mouth.	66.5	--	9- 3-86 9- 3-86	6.36 13.1

†† Also a crest-stage partial record station.
‡ Operated as a continuous-record gaging station.

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, NH (LAT 44 52 40 LONG 71 03 25)									
OCT 1985					APR 1986				
01...	0905	204	12.0	39	28...	1025	688	10	22
DEC					JUN				
05...	1105	170	0.0	42	24...	1320	84	22	34
FEB 1986					JUL 1986				
05...	1110	260	0.0	42	29...	1045	55	21	39
01053500 ANDROSCOGGIN RIVER AT ERROL, NH (LAT 44 46 57 LONG 71 07 46)									
OCT 1985					APR 1986				
01...	1115	1630	15.5	29	28...	1220	1320	12.5	23
DEC 1985					JUN 1986				
05...	1210	1770	2.0	42	24...	1505	1850	19	27
FEB 1986					JUL 1986				
05...	1340	3740	1.0	42	28...	0940	1840	22	31
01054000 ANDROSCOGGIN RIVER NEAR GORHAM, NH (LAT 44 26 10 LONG 71 11 27)									
OCT 1985					APR 1986				
01...	1230	1920	17	29	28...	1515	2030	14	70
DEC 1985					JUN 1986				
05...	1355	2320	0.0	86	24...	1620	2100	21	64
FEB 1986					JUL 1986				
05...	1455	2500	1.5	79	25...	0800	2020	22	70
SACO RIVER BASIN									
01064300 ELLIS RIVER NEAR JACKSON, NH (LAT 44 13 12 LONG 071 15 00)									
NOV 1985					MAY 1986				
18...	1430	31	2.5	34	06...	1515	41	5.5	36
JAN 1986					07...	0800	57	--	30
06...	1500	4.6	0.0	40	JUN				
FEB					16...	1500	22	13.5	40
18...	1600	8.8	0.0	40					
MAR									
24...	1400	17	--	64					
01064400 LUCY BROOK NEAR NORTH CONWAY, NH (LAT 44 04 10 LONG 071 10 30)									
NOV 1985					MAR 1986				
18...	1115	16	3.5	21	24...	1100	12	1.0	19
JAN 1986					MAY				
06...	1300	3.0	0.0	21	06...	1300	7.2	7.5	20
FEB					JUN				
18...	1300	5.8	0.0	--	16...	1130	12	12.5	22
01064500 SACO RIVER AT CONWAY, NH (LAT 44 59 27 LONG 71 05 29)									
DEC 1985					JUN 1986				
06...	0715	844	0.5	45	25...	0850	449	16	41
FEB 1986					AUG 1986				
06...	0745	900	0.0	48	04...	1055	829	20	31
APR 1986									
29...	0740	2330	11	25					
01065000 OSSIPEE RIVER AT EFFINGHAM FALLS, NH (LAT 43 47 44 LONG 071 03 36)									
NOV 1985					MAR 1986				
19...	0730	882	5.0	37	28...	1100	1700	2.5	34
DEC					MAY				
30...	0930	320	0.0	28	06...	1100	685	12.0	33
JAN 1986					JUN				
31...	0900	2750	0.0	32	18...	1100	539	19.0	35
FEB									
14...	1000	550	0.0	30					
PISCATAQUA RIVER BASIN									
01072100 SALMON FALLS RIVER AT MILTON, NH (LAT 43 24 50 LONG 070 59 15)									
OCT 1985					MAR 1986				
21...	1500	186	12.0	65	28...	1300	562	2.0	52
NOV					APR				
19...	1325	277	6.0	64	03...	1030	322	--	44
DEC					MAY				
30...	1130	111	1.0	--	06...	0845	102	13.0	62
JAN 1986					JUN				
31...	1030	587	0.0	45	18...	1300	201	19.5	67
FEB									
14...	1330	179	0.0	55					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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)									
OCT 1985					MAR 1986				
21...	1550	5.7	9.0	143	03...	0900	17	0.0	112
NOV					27...	0745	45	--	81
22...	1430	27	4.0	83	MAY				
DEC					07...	1150	14	10.0	123
23...	0830	9.0	0.0	100	JUN				
JAN 1986					18...	1430	19	18.0	120
31...	1145	35	0.0	84					
01073500 LAMPREY RIVER NEAR NEWMARKET, NH (LAT 43 06 09 LONG 070 57 11)									
OCT 1985					FEB 1986				
28...	0915	86	8.0	82	25...	1100	433	0.0	86
NOV					MAR				
22...	1145	429	12.0	74	26...	1000	449	--	68
25...	0810	367	13.0	75	MAY				
DEC					05...	0945	185	11.5	94
23...	0900	140	0.0	70	JUN				
JAN 1986					10...	1000	207	19.0	99
27...	1000	1160	0.0	32					
01073600 DUDLEY BROOK NEAR EXETER, NH (LAT 42 59 37 LONG 071 01 24)									
NOV 1985					MAR 1986				
25...	1120	6.3	0.0	146	27...	1100	14	7.0	117
DEC					MAY				
23...	1215	1.5	0.0	220	05...	1145	3.5	10.0	166
FEB 1986					JUN				
26...	1300	8.6	0.0	134	10...	1200	1.3	19.0	156
MERRIMACK RIVER BASIN									
01075000 PEMIGEWASSET RIVER AT WOODSTOCK NH (LAT 43 58 34 LONG 071 40 48)									
OCT 1985					APR 1986				
17...	1100	874	7.0	31	08...	1020	974	3.0	43
NOV					MAY				
26...	0845	350	0.5	38	28...	1100	625	13.5	40
JAN 1986					28...	1125	625	13.5	40
10...	0900	163	0.0	--					
MAR									
04...	0900	150	0.0	--					
01075800 STEVENS BROOK NEAR WENTWORTH, NH (LAT 43 50 12 LONG 071 53 07)									
OCT 1985					MAR 1986				
18...	1040	3.4	7.0	28	26...	1500	6.0	0.0	25
NOV					JUN				
25...	1515	3.2	1.0	24	20...	1120	1.1	13.0	31
JAN 1986					AUG				
08...	1000	1.2	0.0	12	13...	1050	1.6	14.0	30
27...	1115	317	0.0	21					
FEB									
19...	1355	1.1	0.0	27					
01076000 BAKER RIVER NEAR RUMNEY, NH (LAT 43 47 46 LONG 071 50 42)									
OCT 1985					JAN 1986				
17...	1255	375	9.0	42	27...	1330	96	0.0	--
NOV					APR				
25...	1000	203	1.5	69	08...	1245	785	3.0	26
01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH (LAT 43 45 33 LONG 071 41 10)									
OCT 1985					MAY 1986				
28...	1045	752	7.5	51	12...	1400	1010	9.0	51
NOV					27...	1100	1970	14.0	41
25...	1115	1240	1.0	44	JUN				
JAN 1986					27...	1100	431	14.0	50
13...	1130	383	0.0	30	AUG				
MAR					26...	1010	1380	16.0	--
26...	1230	1380	0.0	53					
01077000 SQUAM RIVER AT ASHLAND, NH (LAT 43 42 19 LONG 071 37 49)									
NOV 1985					JUN 1986				
26...	1330	58	1.0	43	27...	1218	39	14.0	47
JAN 1986					AUG				
08...	1130	60	0.5	41	15...	1155	170	21.0	43
MAY									
12...	0958	61	10.0	62					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

MERRIMACK RIVER BASIN--Continued

01078000 SMITH RIVER NEAR BRISTOL, NH (LAT 43 34 04 LONG 071 44 54)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1985				
18...	1330	120	9.0	43
NOV				
27...	1210	129	1.0	32
DEC				
18...	1200	70	0.0	55
JAN 1986				
09...	1155	54	0.0	28
FEB				
18...	1200	81	0.0	46
APR 1986				
03...	1625	710	2.0	27
MAY				
12...	1615	75	9.0	50
JUN				
19...	1255	116	16.0	44
SEP				
19...	1410	38	13.0	66

01081000 WINNIPESAUKEE RIVER AT TILTON, NH (LAT 43 26 31 LONG 071 35 20)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1985				
15...	1630	236	18.0	74
NOV				
01...	1535	242	9.0	68
04...	0940	218	7.5	68
06...	1445	353	8.0	84
14...	1415	290	4.0	73
DEC				
24...	1200	342	0.0	35
FEB 1986				
24...	0830	1150	1.0	68
MAR				
25...	0800	1450	--	68
26...	0700	1270	--	67
MAY				
09...	1030	338	10.0	75
JUN				
17...	1545	912	19.5	72

01081500 MERRIMACK RIVER AT FRANKLIN JUNCTION, NH (LAT 43 25 26 LONG 071 39 12)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
APR 1986				
03...	1205	13900	3.0	34

01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH (LAT 42 51 45 LONG 071 57 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
NOV 1985				
21...	1325	387	3.0	66
JUN 1986				
17...	0900	147	18.0	78
SEP 1986				
15...	1020	34	12.0	105

01083000 NUBANUSIT BROOK NEAR PETERBOROUGH, NH (LAT 42 53 10 LONG 071 58 24)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1985				
10...	1500	54	13.0	45
NOV				
18...	1445	135	3.0	51
JAN 1986				
02...	1410	21	0.0	50
FEB				
10...	1230	340	0.0	45
MAR				
24...	1430	490	2.0	50
MAY 1986				
05...	1300	54	8.0	63
JUN				
17...	1205	102	17.0	51
JUL				
30...	1410	162	20.0	73
SEP				
15...	1300	52	15.0	47

01085500 CONTOOCOOK R BL HOPKINTON DAM AT W HOPKINTON, NH (LAT 43 11 31 LONG 071 44 51)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
NOV 1985				
06...	1330	1080	8.0	63
21...	1125	1430	6.0	59
DEC				
30...	1400	370	0.0	49
JAN 1986				
27...	1245	918	0.0	48
FEB 1986				
24...	1430	854	0.0	73
APR				
07...	0930	1420	7.0	53
MAY				
14...	0930	310	13.5	80

01085800 WEST BRANCH WARNER RIVER NEAR BRADFORD 43 15 33 LONG 072 01 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1985				
15...	1220	12	10.0	28
25...	1000	5.0	9.0	33
NOV				
22...	1035	13	2.0	28
JAN 1986				
06...	1115	3.0	0.0	13
MAR				
27...	1025	91	0.0	22
JUN 1986				
19...	0925	8.3	15.0	30
AUG				
04...	1130	14	16.0	29
SEP				
17...	1340	3.5	11.0	38

01087000 BLACKWATER RIVER NEAR WEBSTER, NH (LAT 43 17 45 LONG 071 41 46)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
NOV 1985				
21...	0835	477	5.0	40
DEC				
31...	0915	107	0.0	76
FEB 1986				
25...	0830	179	0.0	68
APR 1986				
03...	1415	1490	7.0	32
04...	1130	1230	6.5	33
MAY				
09...	1330	170	11.5	56
JUN				
24...	1030	164	19.5	48

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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)
MERRIMACK RIVER BASIN--Continued									
01089000 SOUCOOK RIVER NEAR CONCORD, NH (LAT 43 14 22 LONG 071 27 44)									
OCT 1985					FEB 1986				
16...	0800	55	9.0	66	21...	1300	90	0.0	60
NOV					25...	1330	129	0.0	75
14...	1535	100	5.0	59	APR				
19...	1442	215	3.0	52	04...	1400	200	7.0	51
21...	1455	153	5.0	54	08...	1415	270	6.0	49
DEC					MAY				
04...	1010	50	0.0	54	07...	1345	72	10.0	72
JAN 1986					JUN				
27...	1130	1110	0.0	46	20...	1530	148	16.5	56
01090800 PISCATAQUOG RIVER BL EVERETT DAM, NR E WEARE, NH (LAT 43 05 29 LONG 071 39 36)									
NOV 1985					APR 1986				
25...	1445	141	--	53	07...	1400	139	7.0	43
DEC					MAY				
31...	1100	48	1.0	56	14...	1200	29	15.0	60
MAR 1986					JUN				
03...	1200	112	1.0	52	20...	1130	165	19.0	58
27...	1330	497	2.5	46					
01091500 PISCATAQUOG RIVER NEAR GOFFSTOWN, NH (LAT 43 00 58 LONG 071 33 03)									
NOV 1985					APR 1986				
15...	1345	506	7.0	64	02...	1430	929	9.0	51
DEC					MAY				
31...	1300	170	0.0	72	08...	1245	194	11.0	--
JAN 1986					JUN				
31...	1430	1150	0.0	46	20...	1030	459	18.5	70
FEB									
02...	1500	--	0.0	66					
01092000 MERRIMACK R NR GOFFS FALLS, BELOW MANCHESTER, NH (LAT 42 56 54 LONG 071 27 52)									
NOV 1985					MAY 1986				
20...	0745	9410	5.0	64	08...	1545	3260	11.0	87
DEC					JUN				
23...	1545	1110	0.0	57	19...	1200	6520	20.0	77
MAR 1986									
26...	1420	14100	--	65					
01093800 STONY BROOK TRIBUTARY NEAR TEMPLE, NH (LAT 42 51 36 LONG 071 50 00)									
OCT 1985					MAY 1986				
10...	1205	3.3	11.0	25	05...	1055	3.9	7.0	29
NOV					JUN				
18...	0950	17	1.5	27	16...	1020	4.9	19.0	27
JAN 1986					JUL				
02...	1100	1.3	0.0	24	30...	1010	17	16.0	24
FEB					SEP				
10...	1105	5.2	0.0	24	15...	0945	0.78	10.0	31
MAR									
24...	1105	15	0.0	23					
01094000 SOUHEGAN RIVER AT MERRIMACK, NH (LAT 42 51 27 LONG 071 30 24)									
NOV 1985					MAY 1986				
04...	1300	90	7.0	144	08...	0900	177	10.0	116
15...	0900	417	6.0	87					
CONNECTICUT RIVER BASIN									
01128500 CONNECTICUT R AT FIRST CONN LK NR PITTSBURG, NH (LAT 45 05 14 LONG 071 17 34									
OCT 1985					FEB 1986				
16...	0930	237	10.0	32	19...	1515	347	0.5	33
NOV					APR				
26...	1200	67	0.0	36	01...	0730	4.8	2.0	51
JAN 1986					MAY				
07...	1300	150	1.0	34	12...	1500	101	11.0	40
01129200 CONNECTICUT R BL INDIAN STREAM NR PITTSBURG, NH (LAT 45 02 25 LONG 071 26 37)									
OCT 1985					APR 1986				
15...	1500	590	9.0	41	01...	1000	1590	4.0	38
NOV					MAY				
26...	1630	527	2.0	43	12...	1615	155	13.0	44
JAN 1986					JUN				
07...	1330	653	0.0	45	17...	1000	234	13.5	48
FEB									
19...	1330	867	0.0	41					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

CONNECTICUT RIVER BASIN--Continued

01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH (LAT 44 44 56 LONG 071 37 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 1985					MAY 1986				
15...	1300	1240	10.0	55	13...	0640	940	10.0	73
DEC					JUN				
02...	1600	1500	2.0	58	17...	1100	950	16.0	76

01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH (LAT 44 37 30 LONG 071 28 10)

OCT 1985					MAR 1986				
15...	1320	244	9.0	41	25...	0930	402	1.0	42
NOV					31...	1530	4700	2.0	25
27...	1130	349	0.0	39	APR				
DEC					01...	1430	3920	3.5	27
03...	1400	265	0.0	35	MAY				
JAN 1986					13...	0830	380	9.0	56
08...	1030	464	0.0	38	JUN				
FEB					23...	1500	145	18.5	45
20...	0845	240	0.0	39					

01131500 CONNECTICUT RIVER NEAR DALTON, NH (LAT 44 24 36 LONG 071 43 16)

OCT 1985					MAY 1986				
16...	1530	4190	9.0	58	13...	1000	1920	12.5	66
DEC					JUN				
02...	1230	2020	0.0	70	23...	1245	905	19.0	70
APR 1986									
17...	1330	4730	8.5	--					

01134500 MOOSE RIVER AT VICTORY VT (LAT 44 30 42 LONG 071 50 13)

NOV 1985					JUN 1986				
18...	1015	186	2.0	34	02...	1230	173	13.0	35
DEC					JUL				
30...	1115	44	0.0	36	15...	1300	206	16.0	34
MAR 1986					AUG				
14...	1300	62	0.0	38	28...	1000	611	13.5	30
APR									
18...	1230	372	7.0	24					

01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT (LAT 44 21 56 LONG 072 02 23)

NOV 1985					APR 1986				
18...	1300	950	2.5	92	18...	0945	1870	7.0	112
DEC					JUN				
30...	1400	272	0.0	85	02...	1000	1070	14.0	142
FEB 1986					JUL				
04...	1000	625	0.0	132	15...	0930	1180	15.0	210
MAR					AUG				
14...	1030	700	0.0	80	28...	1315	1570	14.5	100

01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH (LAT 44 16 08 LONG 071 37 52)

OCT 1985					MAR 1986				
17...	0800	196	7.0	31	31...	1100	2490	2.5	20
DEC					MAY				
02...	0845	267	2.0	42	13...	1130	159	--	54
JAN 1986					JUN				
08...	1300	50	0.0	47	23...	1145	87	14.5	42
FEB									
10...	1030	108	0.0	38					

01138500 CONNECTICUT RIVER AT WELLS RIVER, VT (LAT 44 09 13 LONG 072 02 34)

OCT 1985					MAR 1986				
17...	1200	6130	14.0	72	31...	1130	26700	2.5	60
DEC					MAY				
10...	0810	4350	0.0	85	21...	1230	5650	17.0	105
JAN 1986					JUN				
15...	0850	3960	0.0	25	24...	0805	1390	19.5	125
FEB					AUG				
24...	0825	1940	0.0	110	13...	0935	2740	29.5	78

01139000 WELLS RIVER AT WELLS RIVER, VT (LAT 44 09 03 LONG 072 03 55)

OCT 1985					MAR 1986				
18...	1000	98	7.0	90	31...	1430	1310	4.0	55
DEC					MAY				
10...	0845	102	0.0	90	21...	1100	158	18.0	114
JAN 1986					JUN				
15...	1100	53	0.0	60	24...	0950	77	18.5	140
FEB					AUG				
24...	0705	105	0.0	110	12...	1100	110	18.0	145

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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									
01139800 EAST ORANGE BRANCH AT EAST ORANGE, VT (LAT 44 05 34 LONG 072 20 10)									
OCT 1985					APR 1986				
18...	1145	8.2	7.0	148	08...	1045	60	3.5	128
DEC					MAY				
10...	1030	14	0.0	78	13...	1030	13	11.0	165
JAN 1986					JUN				
15...	1345	6.8	0.0	42	23...	1125	24	14.0	180
FEB					AUG				
24...	1100	7.1	0.0	85	11...	1145	11	17.5	23
01141500 OMPOMPANOOSUC RIVER AT UNION VILLAGE, VT (LAT 43 47 23 LONG 072 15 19)									
NOV 1985					APR 1986				
04...	1235	74	6.5	165	04...	0650	1210	3.5	95
DEC					MAY				
05...	1100	247	0.0	85	21...	1455	147	18.5	165
JAN 1986					JUN				
17...	1320	180	0.0	45	26...	0920	74	15.0	200
FEB					AUG				
20...	1430	137	0.0	120	14...	1130	86	29.0	125
01141800 MINK BROOK NEAR ETNA, NH (LAT 43 42 08 LONG 072 11 15)									
OCT 1985					APR 1986				
21...	1130	4.8	6.0	85	07...	1245	26	3.5	54
NOV					MAY				
25...	1300	7.9	2.0	71	23...	1140	14	15.0	75
JAN 1986					JUL				
09...	1440	3.0	0.0	86	11...	1120	1.2	13.0	102
09...	1445	2.7	0.0	68	AUG				
MAR					26...	1310	2.1	13.5	89
03...	1215	2.9	0.0	64	26...	1320	2.1	13.5	89
01142500 AYERS BROOK AT RANDOLPH, VT (LAT 43 56 04 LONG 072 39 30)									
OCT 1985					MAY 1986				
22...	1300	47	6.0	180	09...	0920	47	7.5	145
DEC					13...	1240	34	11.0	175
11...	1000	38	0.0	85	JUN				
JAN 1986					24...	1245	25	17.5	210
21...	1320	42	0.0	45	AUG				
FEB					11...	1345	45	18.5	20
24...	1430	43	0.0	85					
APR									
08...	1600	375	7.5	110					
01144000 WHITE RIVER AT WEST HARTFORD, VT (LAT 43 42 51 LONG 072 25 07)									
OCT 1985					APR 1986				
23...	0920	1210	7.0	95	04...	1300	4730	5.0	95
DEC					MAY				
09...	1045	1000	0.0	80	15...	0900	745	16.5	135
13...	0800	804	0.0	85	JUN				
JAN 1986					26...	1300	634	15.0	158
14...	1030	379	0.0	45	AUG				
FEB					05...	1330	682	20.0	155
20...	1145	791	0.0	158					
01144500 CONNECTICUT RIVER AT WEST LEBANON, NH (LAT 43 38 47 LONG 072 18 46)									
OCT 1985					APR 1986				
23...	1535	4200	12.0	80	04...	0845	36000	4.0	85
DEC					MAY				
09...	1015	11000	0.5	81	22...	1245	12600	17.0	110
JAN 1986					JUN				
13...	1440	5510	0.5	78	26...	1015	5160	18.0	107
FEB					AUG				
25...	1030	10300	0.0	110	13...	1230	10900	21.0	113
01145000 MASCOMA RIVER AT WEST CANAAN, NH (LAT 43 39 00 LONG 072 04 50)									
OCT 1985					MAY 1986				
21...	1330	99	7.0	56	23...	1410	176	18.0	54
JAN 1986									
23...	1000	330	0.0	--					
01150500 MASCOMA RIVER AT MASCOMA, NH (LAT 43 39 01N LONG 072 11 05W)									
OCT 1985					MAY 1986				
21...	1015	285	12.0	56	23...	0900	248	20.0	53
JAN 1986					23...	1000	248	20.0	53
09...	1545	85	0.5	53	JUL				
MAR					11...	0930	93	19.0	33
03...	0930	100	1.0	--	11...	1000	93	19.0	33
APR									
07...	1100	777	4.0	45					

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									
01150900 OTTAUQUECHEE RIVER NEAR WEST BRIDGEWATER, VT (LAT 43 37 20 LONG 72 45 34)									
OCT 1985					MAY 1986				
22...	1015	69	5.0	53	19...	1200	33	19.0	130
DEC					JUN				
11...	1130	27	0.0	80	25...	1130	42	13.0	120
JAN 1986					AUG				
22...	1100	106	0.0	46	14...	1420	27	21.0	150
APR									
01...	1115	329	4.5	40					
01151500 OTTAUQUECHEE RIVER AT NORTH HARTLAND, VT (LAT 43 36 09 LONG 072 21 17)									
OCT 1985					MAY 1986				
23...	1645	135	9.5	100	23...	1000	3910	17.0	115
DEC					JUN				
09...	1115	542	0.0	78	30...	0855	192	19.5	170
JAN 1986					AUG				
17...	1120	39	0.0	48	14...	1010	163	22.0	180
APR									
04...	1030	2050	6.5	115					
01152500 SUGAR RIVER AT WEST CLAREMONT, NH (LAT 43 23 15 LONG 072 21 45)									
OCT 1985					MAY 1986				
15...	1515	364	10.0	77	07...	1240	237	9.0	100
NOV					JUN				
22...	1410	712	2.0	73	18...	1330	689	16.0	73
JAN 1986					AUG				
07...	1535	167	0.0	41	04...	1300	985	21.0	67
MAR					SEP				
28...	1530	1530	2.0	59	17...	1030	119	12.0	160
01153000 BLACK RIVER AT NORTH SPRINGFIELD, VT (LAT 43 20 00 LONG 072 30 55)									
OCT 1985					MAY 1986				
16...	1345	773	10.5	72	09...	1355	201	10.0	110
DEC					JUN				
02...	1230	493	1.0	95	25...	1300	166	13.0	105
JAN 1986					AUG				
07...	1215	116	0.0	50	12...	1000	123	22.0	122
FEB					SEP				
12...	1145	191	0.0	92	30...	1200	82	13.0	146
MAR									
28...	1205	1970	1.5	63					
01153500 WILLIAMS RIVER AT BROCKWAYS MILLS, VT (LAT 43 12 31 LONG 072 31 05)									
OCT 1985					SEP 1986				
16...	1530	180	10.0	72	30...	1430	45	13.0	157
01155500 WEST RIVER AT JAMAICA, VT (LAT 43 06 32 LONG 072 46 33)									
OCT 1985					MAY 1986				
17...	1535	471	8.0	45	13...	1245	102	12.0	--
DEC					JUN				
05...	1505	401	0.0	55	23...	1510	275	17.0	50
JAN 1986					AUG				
14...	1330	117	0.0	10	06...	1415	264	20.0	54
APR					SEP				
01...	1550	3080	1.0	35	29...	1315	475	9.0	67
01156000 WEST RIVER AT NEWFANE, VT (LAT 42 59 43 LONG 072 38 13)									
OCT 1985					MAY 1986				
17...	1230	696	8.0	52	13...	1035	164	12.0	67
DEC					JUN				
05...	1150	464	0.0	56	23...	1245	579	16.0	53
JAN 1986					AUG				
14...	1030	146	0.0	45	06...	1305	394	19.0	60
FEB					SEP				
26...	1300	377	0.0	55	29...	1110	503	8.0	--
APR									
01...	0930	6410	5.0	34					
01158000 ASHUELOT RIVER BL SURRY MT DAM, NR KEENE, NH (LAT 42 59 40 LONG 072 18 40)									
OCT 1985					MAR 1986				
11...	1045	132	12.0	35	25...	1125	902	1.0	36
NOV					MAY				
20...	1110	486	3.0	38	09...	0950	75	9.0	49
JAN 1986					JUL				
03...	1015	68	0.0	20	31...	1225	775	20.0	34
FEB					SEP				
20...	1245	143	0.0	19	16...	1320	20	17.0	56

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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									
01158600 OTTER BROOK BELOW OTTER BROOK DAM, NR KEENE, NH (LAT 42 56 45 LONG 072 14 14)									
OCT 1985					MAR 1986				
11...	1345	11	13.0	42	31...	1250	492	2.0	38
NOV					AUG				
21...	1245	135	5.0	44	01...	1505	523	18.0	35
FEB 1986									
20...	1515	45	0.0	43					
01161000 ASHUELOT RIVER AT HINSDALE, NH (LAT 42 47 07 LONG 072 29 12)									
OCT 1985					MAY 1986				
11...	1245	327	12.0	96	08...	1430	326	9.0	123
NOV					JUN				
20...	1405	1200	3.5	57	18...	1045	1570	16.0	64
JAN 1986					AUG				
03...	1245	255	0.0	51	01...	1215	2190	20.0	52
FEB					SEP				
24...	1215	976	0.0	82	16...	1100	154	16.0	220
MAR									
25...	1545	2610	1.0	57					
HUDSON RIVER BASIN									
01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT (LAT 42 54 47 LONG 073 15 25)									
OCT 1985					MAY 1986				
18...	0935	107	7.0	142	13...	1545	116	13.0	220
DEC					JUN				
06...	0805	183	0.0	159	24...	0755	227	12.0	170
JAN 1986					AUG				
14...	1715	58	0.0	117	06...	1700	146	19.0	156
FEB					SEP				
26...	1730	154	0.0	135	29...	1600	125	10.0	210
APR									
02...	0835	620	1.5	84					
ST. LAWRENCE RIVER BASIN									
04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT (LAT 43 37 40 LONG 073 18 50)									
NOV 1985					APR 1986				
06...	1100	188	6.5	180	03...	1015	868	6.0	75
DEC					MAY				
12...	1230	323	0.0	80	14...	1455	23	14.5	150
JAN 1986					JUN				
16...	1325	500	0.0	45	30...	1105	181	20.5	50
FEB					AUG				
26...	1005	450	0.0	110	15...	1120	84	20.0	240
04280350 METAWEE RIVER NEAR PAWLET, VT (LAT 43 22 18 LONG 73 12 59)									
OCT 1985					MAY 1986				
18...	1230	48	7.0	185	14...	0920	60	9.0	205
DEC					JUN				
06...	1130	141	0.0	178	24...	1155	129	15.0	195
FEB 1986					AUG				
27...	1355	75	0.0	167	07...	1415	74	17.0	223
APR					SEP				
02...	1125	352	2.0	130	30...	0810	55	14.0	270
04282000 OTTER CREEK AT CENTER RUTLAND, VT (LAT 43 36 13 LONG 073 00 49)									
NOV 1985					APR 1986				
06...	1315	764	8.0	118	02...	1630	2250	9.0	65
DEC					MAY				
12...	1500	530	0.5	85	19...	1035	390	19.0	200
JAN 1986					JUN				
16...	1450	292	0.0	45	27...	0920	337	16.0	120
FEB					AUG				
26...	0830	248	0.0	110	08...	1020	783	16.0	200
04282500 OTTER CREEK AT MIDDLEBURY, VT (LAT 44 00 47 LONG 073 10 06)									
OCT 1985					APR 1986				
21...	1200	1800	10.0	144	02...	1335	4750	11.5	105
DEC					MAY				
12...	1030	845	0.0	85	14...	1200	584	14.5	195
JAN 1986					JUN				
16...	1000	500	0.0	49	27...	1030	838	16.0	120
FEB					AUG				
26...	1145	653	0.0	110	06...	1300	987	20.5	210

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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)
ST. LAWRENCE RIVER BASIN--Continued									
04284000 JAIL BRANCH AT EAST BARRE, VT (LAT 44 09 30 LONG 072 26 44)									
OCT 1985					APR 1986				
18...	1400	34	8.0	155	08...	0915	187	3.5	70
DEC					MAY				
10...	1220	38	0.0	87	13...	0830	33	10.0	155
JAN 1986					JUN				
21...	1010	280	0.0	48	23...	1000	24	16.0	188
FEB					AUG				
24...	1245	31	0.0	80	11...	0945	41	18.0	25
04285500 NORTH BRANCH WINOOSKI RIVER AT WRIGHTSVILLE, VT (LAT 44 17 58 LONG 072 34 45)									
NOV 1985					APR 1986				
07...	1330	326	7.5	44	14...	1315	256	4.0	38
DEC					MAY				
18...	1200	62	0.5	13	27...	1245	224	16.0	42
FEB 1986					JUL				
03...	0845	82	0.0	38	08...	0845	128	19.0	55
MAR					AUG				
04...	0845	85	0.0	48	20...	1230	15	25.0	54
04286000 WINOOSKI RIVER AT MONTPELIER, VT (LAT 44 15 23 LONG 072 35 36)									
NOV 1985					MAY 1986				
07...	1000	1230	7.5	134	27...	0830	627	16.5	128
DEC					JUL				
18...	0750	415	0.0	250	07...	1000	349	22.0	240
FEB 1986					AUG				
03...	1030	616	0.0	142	20...	1000	219	19.5	280
APR									
10...	0830	2100	4.0	96					
04287000 DOG RIVER AT NORTHFIELD FALLS, VT (LAT 44 10 58 LONG 072 38 27)									
NOV 1985					MAY 1986				
04...	1345	88	8.0	108	28...	0815	122	14.0	118
DEC					JUN				
30...	0845	61	0.0	65	25...	1430	83	14.0	120
JAN 1986					JUL				
24...	0905	69	0.0	45	29...	1400	44	21.5	170
FEB					AUG				
26...	1400	67	0.0	135	27...	1315	143	15.0	156
MAR					SEP				
28...	0930	756	1.0	68	29...	0915	45	13.0	152
04288000 MAD RIVER NEAR MORETOWN, VT (LAT 44 16 42 LONG 072 44 37)									
OCT 1985					APR 1986				
21...	1445	332	7.0	55	01...	1415	1350	6.5	45
DEC					MAY				
11...	1330	145	0.0	85	14...	0930	129	13.5	75
JAN 1986					JUN				
14...	1320	69	0.0	28	25...	0915	225	14.0	82
FEB					AUG				
26...	1530	117	0.0	130	07...	0930	208	18.5	92
04289000 LITTLE RIVER NEAR WATERBURY, VT (LAT 44 22 12 LONG 072 46 11)									
NOV 1985					APR 1986				
12...	0900	63	5.5	58	10...	1245	566	4.0	46
DEC					MAY				
19...	0900	440	0.0	12	05...	0815	17	5.5	55
JAN 1986					28...	1700	23	10.5	58
23...	1315	14	0.0	85	JUL				
MAR					14...	1415	590	14.5	64
07...	1315	13	0.5	82					
04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT (LAT 44 28 44 LONG 073 08 21)									
NOV 1985					APR 1986				
08...	1045	1530	11.0	104	10...	1345	2830	5.0	114
DEC					JUL				
23...	1130	1800	0.0	70	14...	1100	1780	17.0	172
JAN 1986					AUG				
23...	1100	3620	0.0	32	22...	1000	1310	22.0	200
MAR									
07...	1145	1540	0.5	110					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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)
ST. LAWRENCE RIVER BASIN--Continued									
04292000 LAMOILLE RIVER AT JOHNSON, VT (LAT 44 37 22 LONG 072 40 50)									
DEC 1985					MAY 1986				
19...	1315	347	0.0	35	29...	0830	327	18.0	134
FEB 1986					JUL				
04...	1445	350	0.0	116	08...	1345	225	21.5	160
MAR					AUG				
...	...	250	0.0	108	21...	1230	204	23.0	156
APR									
14...	0915	1330	4.5	96					
04292500 LAMOILLE RIVER AT EAST GEORGIA, VT (LAT 44 40 45 LONG 073 04 23)									
NOV 1985					MAY 1986				
13...	1030	2090	4.5	108	28...	1245	840	21.5	110
DEC					JUL				
24...	1000	800	0.0	112	09...	1045	644	23.0	134
MAR 1986					AUG				
10...	1245	533	0.0	118	21...	1015	279	21.5	154
APR									
11...	0930	2550	4.0	84					
04293000 MISSISQUOI RIVER NEAR NORTH TROY, VT (LAT 44 58 22 LONG 072 23 15)									
NOV 1985					APR 1986				
14...	1400	709	4.5	51	15...	1130	502	6.0	70
DEC					MAY				
27...	1230	92	0.0	62	29...	1430	111	17.0	107
FEB 1986					JUL				
06...	1215	76	0.0	35	10...	1115	45	20.0	122
MAR					AUG				
11...	1500	114	0.0	55	26...	1200	291	14.0	76
04293500 MISSISQUOI RIVER NEAR EAST BERKSHIRE, VT (LAT 44 57 30 LONG 072 41 55)									
NOV 1985					APR 1986				
14...	1115	3730	4.5	64	15...	0900	1820	5.5	66
DEC					MAY				
27...	0850	309	0.0	40	29...	1215	380	19.5	125
FEB 1986					JUL				
06...	0915	464	0.0	40	10...	0900	185	19.5	114
MAR					AUG				
11...	1115	293	0.0	108	26...	0900	1580	13.0	68
04296000 BLACK RIVER AT COVENTRY, VT (LAT 44 52 08 LONG 072 16 14)									
NOV 1985					APR 1986				
15...	1230	387	2.5	60	16...	1300	358	10.5	128
JAN 1986					MAY				
02...	0915	74	0.0	170	30...	1115	130	19.0	190
FEB					JUL				
07...	0930	120	0.0	148	11...	0900	41	15.5	240
MAR					AUG				
12...	1100	94	0.0	175	25...	1330	253	15.5	185
04296500 CLYDE RIVER AT NEWPORT, VT (LAT 44 56 22 LONG 072 11 23)									
NOV 1985					APR 1986				
15...	0830	11	4.0	93	15...	1430	236	4.5	94
JAN 1986					MAY				
02...	1145	15	0.0	134	30...	0900	14	19.0	142
FEB					JUL				
06...	1315	30	0.0	116	10...	1400	9.4	19.5	168
MAR					AUG				
12...	0930	10	0.0	145	25...	1000	12	17.5	155

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, 0.17 ft below land-surface datum, May 31, 1984; lowest measured, 6.23 ft below land-surface datum, Sept. 27, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1985	4.33	JAN 24, 1986	3.11	APR 18, 1986	3.28	JUL 19, 1986	4.34
NOV 19	2.64	FEB 21	3.42	MAY 23	4.34	SEP 15	3.34
DEC 18	3.49	MAR 21	1.17	JUN 23	2.99	22	4.63

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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1985	12.8	JAN 27, 1986	13.70	APR 23, 1986	11.80	JUL 21, 1986	12.90
NOV 21	13.3	FEB 22	13.30	MAY 21	12.00	AUG 21	13.10
DEC 26	13.1	MAR 21	13.10	JUN 28	12.60	SEP 22	13.00

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, Feb. 21, Mar. 21, 1986; lowest measured, 2.67 ft below land-surface datum, Sept. 24, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1985	2.05	JAN 17, 1986	2.00	APR 22, 1986	1.04	JUL 18, 1986	2.28
NOV 20	1.47	FEB 21	+1.00	MAY 23	1.65	AUG 25	1.85
DEC 19	2.05	MAR 21	+1.00	JUN 20	2.00	SEP 19	2.04

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 October 1985 (destroyed). 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, 12.69 ft below land-surface datum, Aug. 26, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL
OCT 04, 1985	10.63

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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1985	8.02	JAN 25, 1986	7.20	APR 21, 1986	7.50	JUL 21, 1986	7.79
NOV 22	7.41	FEB 17	7.47	MAY 25	7.67	AUG 24	7.64
DEC 26	7.62	MAR 24	6.64	JUN 23	7.07	SEP 24	7.44

424752071315202. Local number, NAW 143. (424752071312O1) 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; 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, 5.89 ft below land-surface datum, June 5, 1984; lowest measured, 11.58 ft below land-surface datum, Feb. 1, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	9.52	JAN 24, 1986	9.48	APR 28, 1986	8.52	JUL 24, 1986	8.81
NOV 20	8.94	FEB 26	8.96	MAY 27	8.99	AUG 25	8.99
DEC 23	9.07	MAR 27	8.35	JUN 25	8.49	SEP 25	9.36

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, 26.10 ft below land-surface datum, June 5, 1984; lowest measured, 33.10 ft below land-surface datum, Nov. 25, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	29.86	JAN 24, 1986	28.62	APR 28, 1986	27.60	JUL 24, 1986	28.30
NOV 20	29.13	FEB 26	27.97	MAY 27	27.75	AUG 25	28.53
DEC 23	28.30	MAR 27	27.50	JUN 25	27.81	SEP 25	29.46

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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	41.18	JAN 24, 1986	41.59	APR 28, 1986	41.33	JUL 24, 1986	41.81
NOV 20	41.33	FEB 26	41.40	MAY 27	41.52	AUG 25	41.90
DEC 23	41.47	MAR 27	41.37	JUN 25	41.70	SEP 25	41.97

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, 55.10 ft below land-surface datum, Aug. 27, 1984; lowest measured, 59.96 ft below land-surface datum, Jan. 30, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	57.06	JAN 24, 1986	57.69	APR 28, 1986	56.87	JUL 24, 1986	56.84
NOV 20	57.05	FEB 26	56.99	MAY 27	56.67	AUG 25	57.00
DEC 23	57.13	MAR 27	56.93	JUN 25	56.95	SEP 25	57.06

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, 12.94 ft below land-surface datum, June 5, 1984; lowest measured, 20.30 ft below land-surface datum, Jan. 26, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	19.04	JAN 28, 1986	17.92	APR 28, 1986	16.52	JUL 24, 1986	17.20
NOV 20	18.74	FEB 26	18.04	MAY 27	17.03	AUG 25	17.68
DEC 23	17.72	MAR 27	17.90	JUN 25	17.04	SEP 25	18.08

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, 6.18 ft below land-surface datum, June 5, 1984; lowest measured, 16.27 ft below land-surface datum, Jan. 26, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	15.04	JAN 24, 1986	14.48	APR 28, 1986	10.76	JUL 24, 1986	11.78
NOV 20	15.34	FEB 26	13.89	MAY 27	10.95	AUG 25	11.73
DEC 23	15.00	MAR 27	12.46	JUN 25	11.27	SEP 25	12.78

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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	48.69	JAN 24, 1986	48.25	APR 28, 1986	47.57	JUL 24, 1986	48.90
NOV 20	48.42	FEB 26	47.42	MAY 27	48.28	AUG 25	49.57
DEC 23	47.35	MAR 27	47.13	JUN 25	48.76	SEP 25	50.17

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: Peter Danforth.
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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	10.25	JAN 23, 1986	8.70	APR 28, 1986	6.02	JUL 24, 1986	8.96
NOV 20	5.25	FEB 26	7.26	MAY 27	8.33	AUG 25	9.75
DEC 23	7.00	MAR 27	1.96	JUN 25	6.89		

431540071452801. Local number, WCW 1.
LOCATION.--Lat 43°15'40", long 71° [illegible]gic 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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	32.44	JAN 23, 1986	31.51	APR 28, 1986	27.92	JUL 24, 1986	30.10
NOV 20	32.11	FEB 26	30.35	MAY 27	28.77	AUG 25	30.44
DEC 23	31.14	MAR 27	29.68	JUN 25	29.43	SEP 25	30.98

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: Brenda Nye.
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, 32.40 ft below land-surface datum, Dec. 18, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	31.46	JAN 31, 1986	30.16	MAY 27, 1986	31.11	SEP 25, 1986	31.58
NOV 20	30.88	FEB 26	31.09	JUN 25	30.76		
DEC 23	31.30	MAR 27	30.64	JUL 24	30.94		
JAN 29, 1986	30.23	APR 28	30.97	AUG 25	31.29		

BENNINGTON COUNTY

424810073160401. Local number, POW 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, 9.98 ft below land-surface datum, June 1, 1984; lowest measured, 16.59 ft below land-surface datum, Oct. 19, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	14.14	JAN 26, 1986	13.29	APR 20, 1986	12.99	JUL 28, 1986	13.57
NOV 27	13.34	FEB 23	13.15	MAY 25	13.68	AUG 20	13.67
DEC 23	13.70	MAR 23	10.70	JUN 23	13.54	SEP 20	14.14

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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1985	34.04	JAN 29, 1986	36.25	APR 23, 1986	29.36	JUL 22, 1986	31.96
NOV 21	34.89	FEB 25	36.55	MAY 22	30.67	AUG 22	32.69
DEC 23	35.63	MAR 24	36.52	JUN 23	31.50	SEP 23	33.52

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, 4.95 ft below land-surface datum, Aug. 21, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1985	3.75	JAN 20, 1986	4.04	APR 23, 1986	2.97	JUL 20, 1986	4.15
NOV 21	3.42	FEB 20	3.79	MAY 22	3.50	AUG 23	3.80
DEC 27	4.03	MAR 25	3.27	JUN 23	4.17	SEP 21	3.68

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, 9.71 ft below land-surface datum, Feb. 24, 1981; lowest measured, 16.43 ft below land-surface datum, Aug. 26, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1985	14.26	JAN 29, 1986	12.49	APR 23, 1986	13.11	JUL 22, 1986	15.02
NOV 21	13.34	FEB 25	13.71	MAY 22	14.31	AUG 22	15.20
DEC 23	14.06	MAR 24	11.81	JUN 23	14.76	SEP 23	14.43

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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1985	19.72	JAN 29, 1986	17.86	APR 23, 1986	17.43	JUL 22, 1986	19.45
NOV 21	19.10	FEB 25	18.35	MAY 22	18.31	AUG 22	19.68
DEC 23	18.51	MAR 24	18.06	JUN 23	18.76	SEP 23	19.60

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, 5.51 ft below land-surface datum, Aug. 26, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1985	4.18	JAN 24, 1986	3.94	APR 21, 1986	1.76	JUL 21, 1986	4.22
NOV 25	3.49	FEB 25	2.80	MAY 23	2.85	AUG 20	3.91
DEC 20	3.82	MAR 24	1.75	JUN 24	3.63	SEP 24	4.20

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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1985	16.73	JAN 29, 1986	16.77	APR 23, 1986	13.74	JUL 22, 1986	16.12
NOV 21	16.48	FEB 25	17.19	MAY 22	15.28	AUG 22	16.62
DEC 23	16.90	MAR 24	16.54	JUN 23	15.55	SEP 23	16.80

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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	36.56	JAN 24, 1986	36.37	APR 21, 1986	35.36	JUL 21, 1986	35.63
NOV 25	36.47	FEB 25	36.28	MAY 23	35.40	AUG 20	35.37
DEC 20	36.40	MAR 24	35.81	JUN 24	35.49	SEP 24	35.21

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, 23.80 ft below land-surface datum, Sept. 11, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1985	21.75	JAN 31, 1986	19.99	MAY 22, 1985	21.78	SEP 23, 1986	22.63
NOV 21	20.93	FEB 25	21.68	JUN 23	22.49		
DEC 23	22.05	MAR 24	20.32	JUL 22	23.17		
JAN 29, 1986	19.23	APR 23	21.29	AUG 22	23.01		

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, 17.03 ft below land-surface datum, Aug. 28, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1985	15.39	JAN 31, 1986	14.97	MAY 22, 1986	15.29	SEP 23, 1986	16.12
NOV 21	14.52	FEB 25	15.48	JUN 23	15.32		
DEC 23	15.65	MAR 24	13.79	JUL 22	16.10		
JAN 29, 1986	15.26	APR 23	13.16	AUG 22	16.43		

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, 4.25 ft below land-surface datum, Dec. 14, 1983; lowest measured, 7.62 ft below land-surface datum, July 26, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2, 1985	6.42	JAN 31, 1986	5.37	MAY 23, 1986	5.79	SEP 24, 1986	6.30
NOV 25	6.28	FEB 25	6.44	JUN 24	6.38		
DEC 20	6.59	MAR 24	5.49	JUL 21	6.67		
JAN 24, 1986	5.88	APR 21	6.15	AUG 20	6.73		

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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	6.33	JAN 31, 1986	4.78	MAY 23, 1986	6.30	SEP 24, 1986	6.60
NOV 25	6.09	FEB 25	6.44	JUN 24	6.49		
DEC 20	6.43	MAR 24	5.20	JUL 21	6.98		
JAN 24, 1986	6.01	APR 21	5.92	AUG 20	6.89		

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, 1.57 ft below land-surface datum, June 1, 1984; lowest measured, 6.31 ft below land-surface datum, Sept. 28, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1985	4.90	JAN 23, 1986	4.49	APR 21, 1986	4.50	JUL 24, 1986	5.44
NOV 21	3.90	FEB 21	4.43	MAY 23	4.72	AUG 26	5.52
DEC 23	4.82	MAR 20	1.56	JUN 20	4.33	SEP 23	5.40

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, 5.96 ft below land-surface datum, June 1, 1984; lowest measured, 9.94 ft below land-surface datum, Oct. 22, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1985	9.43	JAN 24, 1986	8.35	APR 21, 1986	7.14	JUL 21, 1986	8.64
NOV 25	8.91	FEB 25	8.29	MAY 23	7.78	AUG 20	9.09
DEC 20	8.39	MAR 24	7.62	JUN 24	8.22	SEP 24	9.21

435129072483301. 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 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1985	9.07	JAN 31, 1986	8.35	MAY 23, 1986	9.62	SEP 24, 1986	10.94
NOV 25	8.79	FEB 25	9.90	JUN 24	9.86		
DEC 21	10.42	MAR 24	6.20	JUL 21	11.32		
JAN 24, 1986	10.37	APR 21	7.67	AUG 20	9.79		

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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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