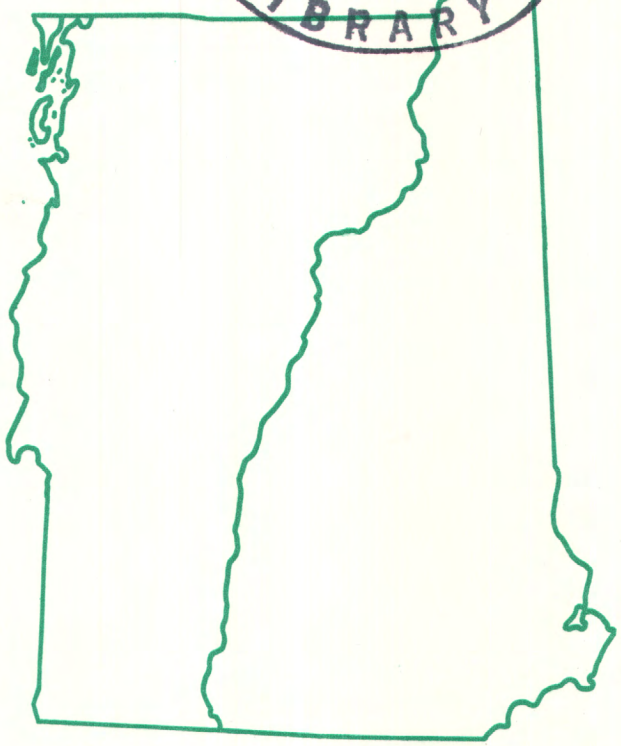
Water Resources Data New Hampshire and Vermont Water Year 1985



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NH-VT-85-1
Prepared in cooperation with the States of New Hampshire and Vermont and with other agencies

CALENDAR FOR WATER YEAR 1985

1984

OCTOBER

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1985

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Water Resources Data New Hampshire and Vermont Water Year 1985

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

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NH-VT-85-1
Prepared in cooperation with the States of New Hampshire and Vermont and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
150 Causeway Street
Boston, MA 02114-1384

1987

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: A. R. Cloutier, 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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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 1985 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 74 gaging stations, stage records for 4 lakes, monthend contents for 24 lakes and reservoirs, water-quality data for 3 gaging stations, and water levels for 30 observation wells. Also included are data for 4 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. Locations of gaging stations, partial-record stations, and observation wells are shown in figure 1. A few pertinent stations (not included above) in bordering States and Province of Quebec are also included in this report. These data represent that portion of the National Water Data System operated by the U.S. Geological Survey and by the cooperating State and Federal agencies in New Hampshire and Vermont.

17. Document Analysis a. Descriptors

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

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages
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(Letters after station name designate type of data: (d), discharge; (l), lake; (c) chemical; (b), biological; (t), water temperature)

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, Federal Center, Bldg. 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an indentification 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."

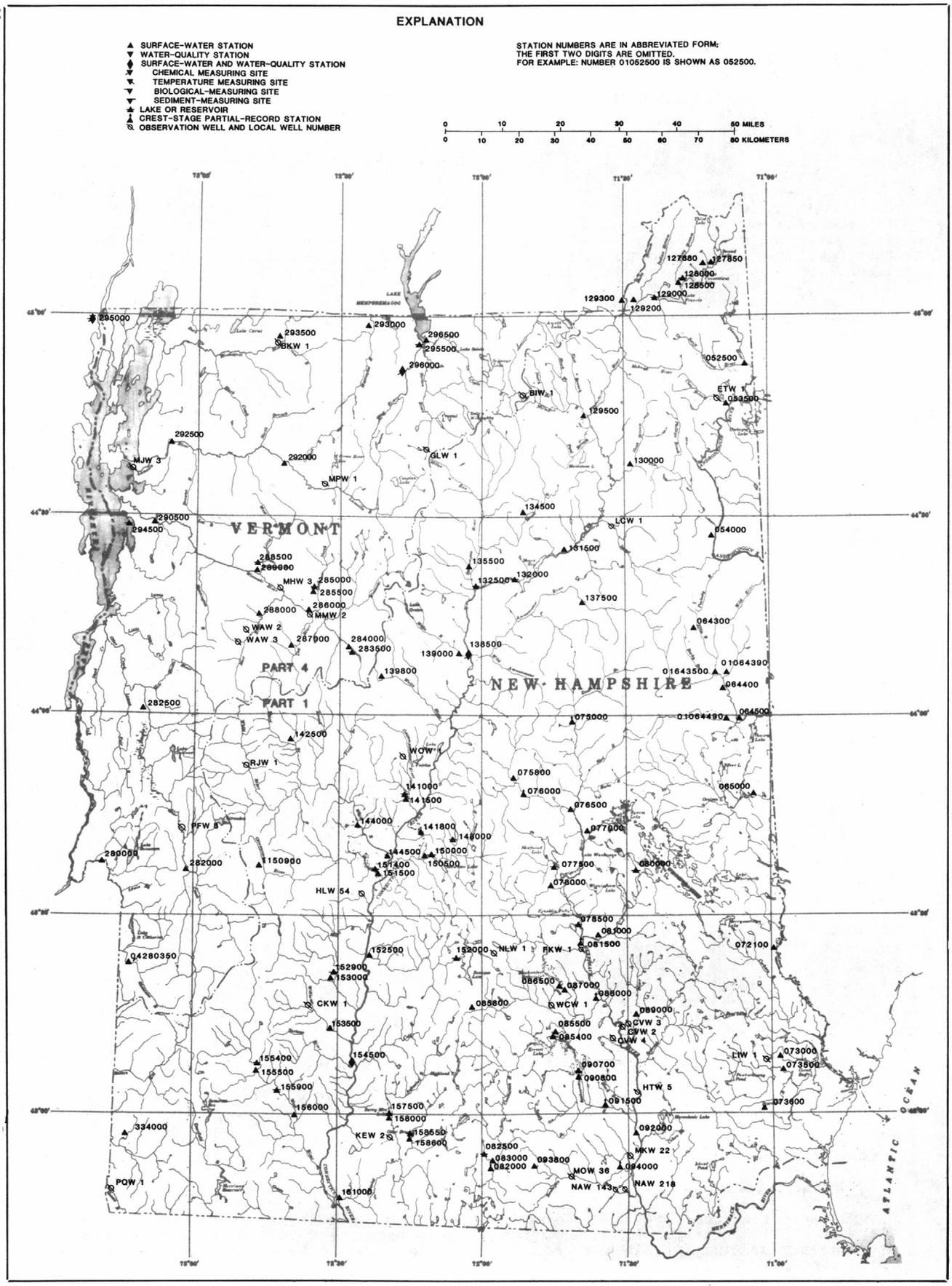

Figure 1.—Location of data-collection sites

SUMMARY OF HYDROLOGIC CONDITIONS

Runoff for the 1985 water year was deficient (in the lower quartile of record) throughout New Hampshire and Vermont, ranging from 10.53 inches at the Lamprey River near Newmarket, in southeastern New Hampshire, to 24.70 inches at the Missisquoi River near East Berkshire, in northwestern Vermont. Runoff at the two index stations--Dog River at Northfield Falls, Vermont, and Pemigewasset River at Plymouth, New Hampshire--was 78 percent and 69 percent of median, respectively. Significant hydrologic conditions that occurred during the water year include record low or near-record low monthly mean discharges during the summer months and annual peak discharges late in the water year at many gaging stations.

Annual peak discharges at gaging stations in New Hampshire and Vermont can normally be expected from March to May. Peak discharges generally occur in response to snowmelt or rainfall on frozen or saturated soils. Below-normal snowpack and rainfall produced below-normal spring flood peaks throughout New Hampshire and Vermont. Annual peaks at 22 of 71 gaging stations in the two States occurred during June through February. Annual peaks at both index stations were the lowest recorded since the drought of the mid-1960's.

Streamflow was in the normal range at the beginning of the water year, and, although precipitation was deficient during the period, it remained in the normal range at most gaging stations through March. Streamflow declined during April through August as a result of below-normal precipitation; flows at stations in northwestern Vermont varied between normal and deficient. The Missisquoi River near North Troy, Vermont, for example, was in the normal range during the months of April, June, and July, and deficient during the months of May and August. Streamflow was deficient in southeastern New Hampshire for the period April through August. The June monthly mean discharge for Lamprey River at Newmarket, New Hampshire, was the second lowest for that month in 54 years of record. Runoff was excessive during September in both New Hampshire and Vermont because of storms at the beginning and end of the month. Monthly mean discharge and the median discharge for the reference period 1951-80 for the two index gaging stations are shown in figure 2.

Storage in major reservoirs in the two-State area generally increased from October through June and declined through the remainder of the water year. The contents of most reservoirs were in the average range at the end of September. The storage in three of the reservoirs shows the yearly storage pattern. Usable storage in Lake Francis in northern New Hampshire increased from 57 percent of capacity at the beginning of October to 92 percent on June 30 and then declined to 78 percent of capacity by the end of September. Usable storage in Lake Winnipesaukee in central New Hampshire increased from 66 percent of capacity on October 1 to 82 percent on May 31 and declined to 54 percent by September. Harriman Reservoir in southern Vermont increased from 53 percent of capacity on October 1 to 92 percent at the end of May and declined to 70 percent by the end of September.

Ground-water levels in New Hampshire and Vermont were in the normal to below-normal range throughout the 1985 water year. Ground-water levels were in the normal range at the beginning of the water year, but declined seasonally except in northern New Hampshire and northeastern Vermont where they were below normal. Seasonal decline continued through October with water levels dropping below normal except in western Vermont. Scattered recharge occurred from November through January throughout most of the two States, causing water levels to return to the normal range in most of Vermont by the end of December and in most of New Hampshire by the end of January. During February, water levels declined to the below normal range.

Seasonal recharge began during March that caused water levels to rise to the normal range, except in the southern parts of New Hampshire and Vermont and in the Montpelier area, where they remained below normal. Recharge during April was below average, causing water levels to remain or return to below normal by the end of the month, except in the Champlain Lowlands and northernmost Vermont where they were normal.

Seasonal ground-water level declines began in the southern parts of New Hampshire and Vermont in late April and elsewhere during May. These declines continued through August. Water levels remained in the below-normal range during this period, except for northern and western Vermont where they remained normal. Some recharge occurred in southern areas of both States during September, and, by the end of the water year, levels had risen to the normal range.

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.

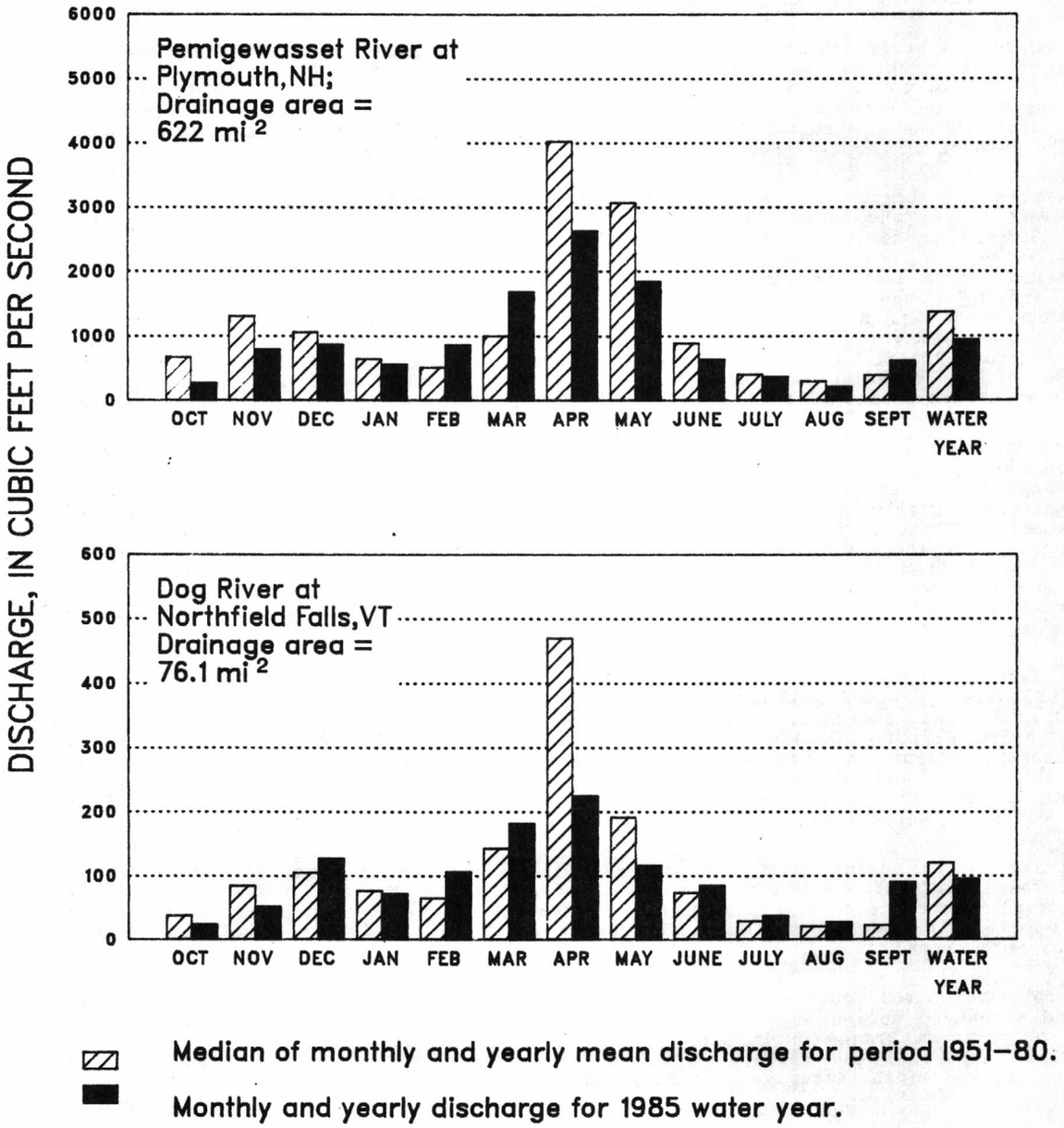

Figure 2.--Comparison of discharge at two long-term index gaging stations during 1985 water year with median discharge for period 1951–80.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1985 water year that began October 1, 1984, and ended September 30, 1985. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface 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 appears just 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 below.)

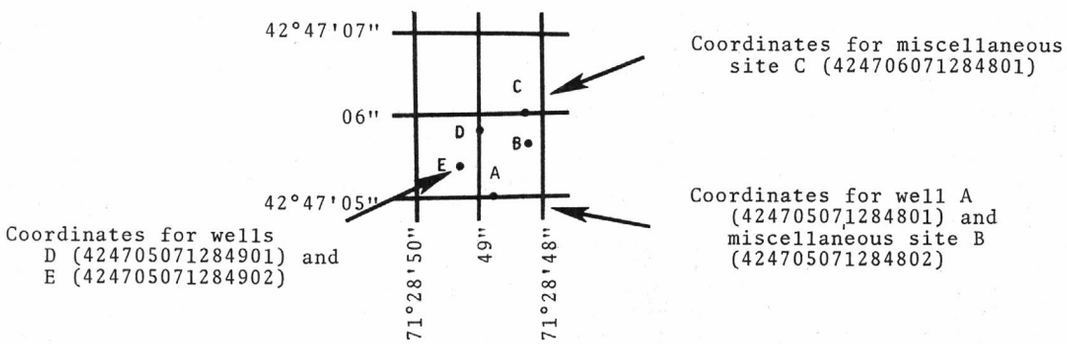

Figure 3.--System for numbering wells and miscellaneous sites (latitude and longitude)

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

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 Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

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

Daily mean 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 appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

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

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

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

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations, 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 appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site 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 Virginia Office of the Mid-Atlantic District 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 (BOD), 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 TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings 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 appear with the water-quality data in this report:

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

Records of Ground-Water Levels

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 appears 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 (lsd). 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 (MP) 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 National Geodetic Vertical Datum of 1929 (NGVD 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 U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of 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 WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer 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, Virginia 22092

DEFINITION OF TERMS

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

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

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A 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°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

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

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

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

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

Bottom material: See Bed material.

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

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 one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

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

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

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

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

Cubic-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 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

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

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

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

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

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

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

Drainage area of a stream at a 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 relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

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

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

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

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

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information 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 (NADP).

Organism is any living entity.

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

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

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

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

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

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentaiton 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.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

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

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

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

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

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

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

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

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

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

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 [mg0 /(m^2.time)] for periphyton and macrophytes and [mg0 /(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 (mg/L).

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

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

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

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

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

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

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is 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 U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

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

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the 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 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

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

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

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	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-foot 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, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

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

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

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

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Forty-six 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 March 1986, 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.
3-12 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-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 mi².

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: Nov. 11-29, Dec. 3-29, Jan. 1 to Feb. 24, Feb. 27 to Mar. 29. 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.--44 years, 349 ft³/s, 31.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,630 ft³/s June 16, 1943, gage height, 10.66 ft, from rating curve extended above 4,300 ft³/s; maximum gage height, 12.23 ft Feb. 21, 1981 (ice jam); minimum discharge, 6.8 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 25	a1400	*3,840	*7.58	Apr. 26	2000	3,710	7.47

a Estimated.

Minimum discharge, 15 ft³/s Oct. 1, gage height, 1.00 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	40	237	540	57	500	614	1790	225	142	386	232
2	36	39	165	350	56	420	416	1280	236	118	219	121
3	107	42	93	250	55	385	309	930	181	125	123	104
4	121	41	79	200	54	365	257	702	147	164	90	565
5	120	54	68	190	52	350	220	638	130	113	73	715
6	74	266	60	170	51	340	231	1000	236	91	63	279
7	55	142	56	160	50	325	439	1210	428	205	57	184
8	46	82	54	145	50	315	443	998	244	334	57	142
9	41	67	53	135	49	305	366	656	262	310	78	107
10	40	63	52	125	48	295	298	595	215	180	64	93
11	38	92	51	120	47	280	268	764	164	140	52	113
12	36	426	50	115	47	270	241	618	224	116	48	103
13	34	590	49	105	48	295	228	538	409	94	44	87
14	32	274	73	100	59	245	214	501	523	81	39	79
15	31	160	69	96	75	195	292	385	367	84	36	70
16	30	141	66	92	70	190	1400	323	249	1160	39	63
17	28	134	63	90	63	185	2710	311	243	586	40	59
18	28	88	60	87	59	180	1350	600	251	285	35	55
19	27	81	58	84	55	175	781	1110	516	193	31	52
20	28	77	56	81	52	170	666	582	350	155	31	48
21	30	73	55	78	50	165	1090	425	252	127	31	45
22	33	67	64	76	50	160	1840	360	191	107	29	42
23	51	64	105	73	56	145	2160	299	171	92	27	40
24	41	62	98	71	658	125	2050	261	308	82	26	39
25	35	59	100	69	2920	110	2190	229	357	73	37	42
26	45	57	110	67	3000	100	2910	212	241	66	76	43
27	78	55	125	65	1500	95	3260	296	203	100	145	160
28	78	54	170	64	715	110	2030	668	184	84	157	1110
29	62	140	585	62	---	890	1640	372	202	65	80	577
30	52	431	2030	60	---	1980	1660	265	169	189	89	292
31	45	---	1250	58	---	1330	---	217	---	155	469	---
TOTAL	1527	3961	6204	3978	10046	10995	32573	19135	7878	5816	2771	5661
MEAN	49.3	132	200	128	359	355	1086	617	263	188	89.4	189
MAX	121	590	2030	540	3000	1980	3260	1790	523	1160	469	1110
MIN	25	39	49	58	47	95	214	212	130	65	26	39
CFSM	.32	.87	1.32	.84	2.36	2.34	7.14	4.06	1.73	1.24	.59	1.24
IN.	.37	.97	1.52	.97	2.46	2.69	7.97	4.68	1.93	1.42	.68	1.39

CAL YR 1984 TOTAL 120554 MEAN 329 MAX 4310 MIN 16 CFSM 2.16 IN. 29.50
WTR YR 1985 TOTAL 110545 MEAN 303 MAX 3260 MIN 25 CFSM 1.99 IN. 27.05

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 mi².

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 good. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes (Reservoirs in Androscoggin River basin), combined usable capacity, 28,100,000,000 ft³, with final regulation at Errol Dam. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--80 years, 1,905 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 16,500 ft³/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, 4,020 ft³/s Apr. 27; minimum daily, 519 ft³/s Apr. 17, gage height, 4.11 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1890	1450	1220	1080	1420	1200	1010	2550	1290	1320	1710	1550
2	1880	1420	1250	1130	1410	1270	1010	1760	1200	1370	1680	1610
3	1790	1410	1230	1200	1410	1280	1020	1460	1190	1450	1610	1630
4	1790	1420	1220	1280	1420	1310	1110	1150	1430	1480	1650	1680
5	1880	1420	1240	1280	1430	1270	1210	1090	1500	1510	1660	1700
6	1850	1350	1310	1330	1470	1250	1420	1080	1400	1580	1670	1690
7	1880	1410	1290	1350	1440	1250	1690	1020	1330	1600	1680	1700
8	1890	1420	1260	1370	1440	1240	1660	1040	1340	1580	1660	1700
9	1850	1390	1260	1370	1430	1250	1620	1180	1400	1580	1650	1710
10	1850	1360	1240	1370	1430	1260	1570	1760	1430	1570	1670	1710
11	1890	1340	1260	1370	1430	1270	1320	1850	1450	1590	1670	1700
12	1890	1220	1220	1370	1440	1250	1170	1720	1390	1610	1680	1720
13	1880	840	1210	1360	1300	1180	1160	1780	1200	1650	1720	1740
14	1880	1120	1200	1380	1330	1180	1170	1850	1230	1650	1710	1750
15	1820	1230	1210	1340	1380	1190	1170	1620	1270	1660	1720	1750
16	1770	1220	1220	1360	1370	1250	733	1490	1400	1590	1740	1760
17	1740	1230	1200	1360	1350	1250	519	1450	1440	1610	1730	1760
18	1750	1250	1190	1370	1340	1240	537	1220	1390	1670	1730	1760
19	1760	1290	1210	1360	1320	1230	593	1180	1370	1680	1740	1760
20	1760	1330	1200	1360	1320	1260	662	1240	1400	1690	1740	1760
21	1770	1340	1200	1360	1330	1280	791	1290	1390	1680	1750	1750
22	1780	1360	1210	1370	1320	1290	587	1290	1420	1680	1750	1760
23	1790	1380	1200	1370	1300	1270	1460	1280	1400	1690	1740	1790
24	1820	1390	1220	1370	1170	1270	2550	1150	1450	1700	1730	1810
25	1760	1400	1220	1380	1150	1280	3590	1150	1450	1700	1720	1800
26	1580	1350	1230	1360	1150	1280	3610	1260	1440	1700	1590	1800
27	1550	1320	1230	1360	1160	1290	3840	1170	1440	1700	1740	2130
28	1560	1330	1230	1360	1160	1280	4010	1040	1450	1700	1640	1590
29	1550	1300	1180	1370	---	1160	3800	1120	1320	1710	1690	1450
30	1550	1220	919	1370	---	1050	3490	1270	1390	1700	1660	1570
31	1520	---	993	1390	---	1000	---	1370	---	1700	1490	---
TOTAL	54920	39510	37472	41450	37620	38330	50082	42880	41200	50100	52320	51590
MEAN	1772	1317	1209	1337	1344	1236	1669	1383	1373	1616	1688	1720
MAX	1890	1450	1310	1390	1470	1310	4010	2550	1500	1710	1750	2130
MIN	1520	840	919	1080	1150	1000	519	1020	1190	1320	1490	1450

CAL YR 1984 TOTAL 832083 MEAN 2273 MAX 12700 MIN 840
WTR YR 1985 TOTAL 537474 MEAN 1473 MAX 4010 MIN 519

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 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 832.88 ft 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 good. Flow regulated by Rangeley, Mooselookmeguntic, Richardson, Aziscohos, and Umbagog Lakes, combined usable capacity, 28,100,000,000 ft^3, with final regulation at Errol Dam 35 mi upstream. Diurnal fluctuation caused by powerplant 0.8 mi upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--72 years, 2,467 ft^3/s.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,920 ft^3/s Apr. 27, gage height, 6.36 ft; minimum daily, 1,440 ft^3/s Dec. 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2000	1640	1710	1770	1600	1800	2090	4930	1800	1880	2320	1980
2	2160	1630	1580	1710	1610	1850	1870	3230	1690	1570	2170	1860
3	2300	1570	1540	1540	1600	1860	1730	2810	1570	1690	1920	1860
4	2230	1570	1490	1570	1580	1780	1660	2190	1570	1780	1850	1870
5	2160	1620	1490	1630	1580	1770	1700	1900	1800	1740	1840	2020
6	2090	1680	1440	1580	1620	1670	1810	2370	1880	1800	1930	1940
7	2040	1630	1570	1560	1610	1630	2500	2870	1910	1840	2010	1920
8	2050	1630	1490	1650	1610	1610	2680	3020	1690	1900	1940	1920
9	2060	1590	1550	1570	1580	1590	2570	2340	1730	1880	1850	1870
10	1980	1580	1530	1570	1590	1590	2340	2300	1740	1880	1810	1890
11	2030	1570	1520	1580	1600	1590	2230	2870	1700	1840	1850	1890
12	2040	1870	1520	1620	1620	1720	1850	2610	1770	1850	1850	1870
13	2020	2090	1550	1610	1730	1810	1800	2500	1850	1840	1840	1860
14	2030	1600	1640	1640	1620	1800	1750	2910	1790	1870	1860	1890
15	2030	1610	1610	1670	1760	1740	1770	2670	1710	1840	1870	1910
16	1950	1580	1540	1560	1740	1690	2670	2190	1660	2040	1890	1920
17	1900	1580	1570	1510	1670	1680	3770	2140	1800	2050	1900	1920
18	1870	1510	1610	1580	1650	1640	2770	2520	1810	1890	1890	1900
19	1880	1540	1600	1570	1620	1570	2380	3370	1910	1890	1860	1900
20	1890	1540	1560	1570	1570	1580	2150	2620	1910	1890	1890	1900
21	1900	1560	1480	1530	1570	1590	2630	2340	1760	1880	1870	1900
22	1910	1560	1460	1550	1570	1590	2980	2130	1680	1850	1870	1880
23	1940	1540	1520	1560	1630	1630	3650	1900	1700	1870	1870	1890
24	1940	1630	1510	1590	1830	1610	4530	1850	1680	1880	1860	1910
25	1970	1550	1490	1570	2170	1630	5550	1570	1990	1880	2000	1930
26	1850	1620	1480	1580	2250	1560	6050	1700	1860	1890	2020	1920
27	1790	1520	1620	1550	2120	1570	6680	1810	1790	1890	1870	2170
28	1770	1520	1500	1560	1870	1650	6290	1910	1950	1870	2070	3670
29	1810	1660	1700	1530	---	2060	5530	1750	2220	1890	1830	2130
30	1780	1940	2330	1550	---	2510	4470	1680	1960	1910	1880	1890
31	1740	---	2040	1530	---	2330	---	1810	---	1930	2140	---
TOTAL	61110	48730	49240	49160	47570	53700	92450	74810	53880	57700	59620	59380
MEAN	1971	1624	1588	1586	1699	1732	3082	2413	1796	1861	1923	1979
MAX	2300	2090	2330	1770	2250	2510	6680	4930	2220	2050	2320	3670
MIN	1740	1510	1440	1510	1570	1560	1660	1570	1570	1570	1810	1860

CAL YR 1984 TOTAL 1082350 MEAN 2957 MAX 16900 MIN 1440
WTR YR 1985 TOTAL 707350 MEAN 1938 MAX 6680 MIN 1440

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 mi².

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. 4-11, Dec. 12 to Jan. 22, Feb. 13-26. Records good except for periods of estimated daily discharges and period of shifting control Apr. 26 to Sept. 27, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--21 years (water years 1965-83), 34.0 ft³/s, 42.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/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 ft³/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 ft³/s Mar. 2-4, 1980.

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

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 5	--	ice jam	*5.94	Sept. 27	1800	*a1,260	4.93

a From rating curve extended above 390 ft³/s.

Minimum discharge, 5.0 ft³/s Oct. 1.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	7.6	22	48	9.0	22	22	79	25	34	47	22
2	20	8.4	17	40	9.0	16	19	47	25	31	24	19
3	18	7.5	14	35	8.6	14	17	37	23	29	20	18
4	31	7.1	12	32	8.6	13	15	29	20	28	19	16
5	15	11	11	28	8.6	12	14	49	18	26	18	16
6	10	15	10	25	8.4	11	43	77	19	25	18	20
7	9.2	10	9.8	23	8.2	10	38	133	22	24	16	21
8	12	8.3	9.2	20	7.1	9.8	25	59	20	23	16	18
9	16	8.2	9.3	19	7.1	9.6	21	37	18	22	16	16
10	14	10	9.5	18	7.1	9.4	18	58	18	20	15	18
11	12	18	10	16	7.1	9.5	17	116	16	19	15	19
12	12	98	11	15	7.1	12	16	76	15	19	14	17
13	11	74	15	14	32	15	15	122	16	18	12	16
14	9.7	31	24	13	23	13	15	77	25	18	11	16
15	8.9	23	20	13	10	11	39	43	18	17	11	15
16	8.2	21	14	12	9.0	23	164	40	18	16	11	14
17	7.4	17	25	12	8.2	13	103	41	19	16	11	13
18	7.4	15	20	11	7.8	12	66	143	16	16	10	12
19	7.1	13	17	11	7.2	26	107	71	14	15	9.4	12
20	7.1	19	16	10	7.1	8.8	78	44	12	15	9.4	12
21	6.6	15	15	10	6.8	14	70	41	12	15	9.3	11
22	6.4	15	65	10	9.8	21	129	38	12	15	8.9	10
23	8.9	12	14	9.8	20	9.0	102	32	11	15	8.5	10
24	8.7	11	12	9.4	90	7.4	82	30	14	15	8.2	11
25	7.4	10	14	9.4	50	8.5	90	28	21	15	16	20
26	9.0	11	16	9.4	27	23	150	27	206	16	23	13
27	12	11	22	9.4	24	9.8	91	40	80	25	29	250
28	11	11	17	9.4	21	23	57	45	58	18	23	134
29	11	57	80	9.0	---	66	52	31	47	18	18	56
30	10	37	110	9.0	---	58	79	26	40	16	21	38
31	8.8	---	80	9.0	---	32	---	24	---	19	34	---
TOTAL	340.9	612.1	740.8	518.8	448.8	541.8	1754	1740	878	618	521.7	883
MEAN	11.0	20.4	23.9	16.7	16.0	17.5	58.5	56.1	29.3	19.9	16.8	29.4
MAX	31	98	110	48	90	66	164	143	206	34	47	250
MIN	5.1	7.1	9.2	9.0	6.8	7.4	14	24	11	15	8.2	10
CFSM	1.01	1.87	2.19	1.53	1.47	1.61	5.37	5.15	2.69	1.83	1.54	2.70
IN.	1.16	2.09	2.53	1.77	1.53	1.85	5.99	5.94	3.00	2.11	1.78	3.01

CAL YR 1984 TOTAL 14853.3 MEAN 40.6 MAX 544 MIN 5.1 CFSM 3.72 IN. 50.69
WTR YR 1985 TOTAL 9597.9 MEAN 26.3 MAX 250 MIN 5.1 CFSM 2.41 IN. 32.76

01064350 SACO RIVER AT GLEN, N. H.

LOCATION.--Lat 42°05'46", long 71°10'05", Carroll County, Hydrologic Unit 01060002, gage is located west of West Side Road, about 1 mi downstream from junction of Ellis River, approximately 0.25 mi upstream from junction East Branch Saco River and 1 mi southeast of Glen.

DRAINAGE AREA.--190 mi^2.

PERIOD OF RECORD.--November, 1984, April to September, 1985 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 502.02 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 24 to Dec. 13, and Aug. 21 to Sept. 30. Records good except for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during the period November 1984, April 1985 to September 1985; 2,830 ft^3/s, Apr. 16, gage height, 4.16 ft; minimum daily discharge, 21 ft^3/s, Aug. 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		80					661	1260	272	397	312	164
2		80					551	968	252	300	172	110
3		75					480	789	223	243	115	71
4		70					443	647	197	224	102	68
5		80					423	601	183	184	84	62
6		130					452	865	234	166	79	77
7		140					682	1340	244	161	69	163
8		130					632	1000	189	153	86	140
9		100					570	707	181	148	72	105
10		120					482	711	167	143	61	100
11		165					456	1090	137	139	62	115
12		575					456	927	142	120	57	110
13		730					430	868	178	110	52	83
14		400					412	818	189	105	54	73
15		320					487	604	178	105	53	68
16		280					1370	516	145	130	64	63
17		250					1870	499	150	120	60	58
18		210					979	1230	154	100	55	56
19		175					1390	1090	177	96	56	52
20		280					1240	678	131	91	38	50
21		140					1220	584	119	87	26	43
22		135					1480	508	135	86	24	41
23		130					1650	444	123	85	22	29
24		125					1390	398	138	80	21	31
25		120					1330	359	154	76	27	63
26		118					2100	330	133	73	69	60
27		114					1760	356	137	100	173	280
28		116					1210	439	634	93	140	2150
29		145					1020	337	1200	76	86	575
30		480					1060	288	604	70	68	380
31		---					---	262	---	75	148	---
TOTAL		6013					28686	21513	7100	4136	2507	5440
MEAN		200					956	694	237	133	80.9	181
MAX		730					2100	1340	1200	397	312	2150
MIN		70					412	262	119	70	21	29
CFSM		1.68					8.03	5.83	1.99	1.12	.68	1.52
IN.		1.88					8.97	6.73	2.22	1.29	.78	1.70

01064390 EAST BRANCH SACO RIVER AT LOWER BARTLETT, N. H.

LOCATION.--Lat 44°06'29", long 71°08'36", Carroll County, Hydrologic Unit 01060002, on right bank, about 0.7 mi upstream from highway bridge on Route 16A, approximately 1.7 mi upstream from mouth and 0.55 mi northeast at Lower Bartlett.

DRAINAGE AREA.--37.8 mi^2.

PERIOD OF RECORD.--July 1984 to September 1985 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 615.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Aug. 28, 1984 to Sept. 28, 1984, Dec. 29 to Feb. 7, 13-28, Mar. 4-14, 22, 28-31, Apr. 1-30, and June 27 to Sept. 30. Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT PERIOD.--July to September 1984: Maximum discharge during period, 301 ft^3/s, July 7; gage height, 3.22 ft; minimum, 5.1 ft^3/s, Sept. 10, 11.

Water year 1985: Maximum discharge, 750 ft^3/s, Apr. 16, gage height, 4.22 ft; minimum, 3.0 ft^3/s Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										42	18	9.4
2										30	16	9.0
3										30	16	8.0
4										31	15	8.0
5										33	13	7.7
6										47	13	7.1
7										162	13	6.5
8										184	13	6.0
9										55	12	5.6
10										22	11	5.1
11										20	11	5.1
12										170	11	8.0
13										65	13	8.0
14										49	14	7.7
15										41	62	7.1
16										40	31	7.4
17										46	19	7.7
18										59	16	8.3
19										88	15	7.7
20										47	14	7.7
21										38	14	8.0
22										34	13	9.0
23										32	12	8.0
24										28	14	8.6
25										24	17	8.3
26										22	15	7.7
27										22	13	8.0
28										34	12	8.3
29										29	11	8.3
30										24	9.7	8.7
31										21	9.4	---
TOTAL										1569	486.1	230.0
MEAN										50.6	15.7	7.67
MAX										184	62	9.4
MIN										20	9.4	5.1
CFSM										1.34	.42	.20
IN.										1.54	.48	.23

01064390 EAST BRANCH SACO RIVER AT LOWER BARTLETT, N. H.--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	17	64	70	12	83	184	213	40	60	25	23
2	44	16	48	63	13	75	149	173	39	44	21	15
3	57	16	44	50	14	65	124	148	34	35	13	12
4	26	15	76	46	15	58	113	128	30	30	10	10
5	20	17	40	44	16	54	108	122	27	26	8.0	9.0
6	16	28	37	42	16	35	117	175	38	24	7.2	14
7	15	23	48	40	15	30	185	257	44	22	6.6	22
8	15	19	41	38	14	25	177	181	32	20	7.0	19
9	15	17	42	36	16	20	159	137	29	18	8.0	14
10	15	18	34	34	16	18	129	124	26	20	7.0	12
11	14	26	33	32	16	16	119	115	22	19	6.0	15
12	14	190	33	30	17	50	115	103	22	18	5.0	14
13	14	169	38	28	160	190	110	97	33	16	4.4	12
14	13	78	80	26	230	148	108	89	34	15	3.8	11
15	13	48	53	24	120	110	156	78	27	14	5.0	10
16	13	40	46	24	50	87	444	72	21	15	6.0	9.0
17	13	35	46	23	30	73	423	71	21	14	7.0	8.0
18	13	30	68	22	25	56	253	223	26	12	7.0	8.0
19	13	28	54	21	20	49	306	223	36	11	8.0	7.0
20	13	27	49	20	18	44	321	142	24	10	4.0	6.5
21	13	24	38	19	16	41	344	114	19	10	4.0	6.0
22	13	23	47	18	14	39	390	98	17	9.0	4.0	5.5
23	15	22	48	17	40	37	365	83	15	8.0	3.0	5.0
24	17	22	39	16	106	37	335	76	17	8.0	3.0	5.8
25	15	21	37	15	250	39	329	67	21	7.0	4.0	8.0
26	15	20	40	14	200	39	424	60	18	8.0	10	11
27	25	20	43	13	150	37	337	61	15	10	23	28
28	23	20	65	12	100	84	265	69	52	11	21	330
29	21	78	75	12	---	255	234	57	186	9.0	12	80
30	22	133	140	11	---	304	223	47	92	8.0	10	56
31	19	---	94	10	---	224	---	42	---	9.0	20	---
TOTAL	562.9	1240	1640	870	1709	2422	7046	3645	1057	540.0	283.0	785.8
MEAN	18.2	41.3	52.9	28.1	61.0	78.1	235	118	35.2	17.4	9.13	26.2
MAX	57	190	140	70	250	304	444	257	186	60	25	330
MIN	8.9	15	33	10	12	16	108	42	15	7.0	3.0	5.0
CFSM	.48	1.09	1.40	.74	1.61	2.07	6.22	3.12	.93	.46	.24	.69
IN.	.55	1.22	1.61	.86	1.68	2.38	6.93	3.59	1.04	.53	.28	.77

WTR YR 1985 TOTAL 21800.7 MEAN 59.7 MAX 444 MIN 3.0 CFSM 1.58 IN. 21.45

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. 6, Jan. 4 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.--21 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)
Apr. 16	1830	*78	*6.06				

Minimum discharge, 0.55 ft^3/s Oct. 1, 18-22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	.69	6.6	12	1.1	9.5	19	15	3.9	8.2	3.8	3.8
2	2.1	.69	5.0	10	1.0	8.5	15	12	3.8	5.5	1.7	3.3
3	2.2	.69	4.3	7.3	1.0	7.5	14	11	3.4	4.6	1.4	2.9
4	1.1	.69	3.9	6.0	1.0	7.0	13	9.9	3.1	4.0	1.3	2.5
5	.96	1.2	3.4	5.5	1.0	6.5	13	10	2.8	3.5	1.2	2.2
6	.87	1.4	2.8	5.0	.98	6.0	15	15	3.8	3.2	1.2	4.3
7	.77	.93	3.0	4.5	.96	5.6	20	20	3.3	2.9	1.2	4.4
8	.77	.85	2.9	4.2	.94	5.4	19	13	2.7	2.6	1.2	3.7
9	.77	.85	2.8	3.9	.92	5.0	17	11	2.4	2.4	1.2	3.3
10	.77	1.0	2.4	3.6	.92	4.7	15	10	2.3	2.5	1.2	3.8
11	.77	2.6	2.4	3.4	.90	4.5	14	9.4	2.1	2.4	1.2	3.6
12	.88	22	2.4	3.2	.90	15	14	9.0	2.5	2.1	1.2	3.2
13	.85	21	2.6	2.9	4.0	39	13	8.4	3.0	2.1	1.2	3.1
14	.83	8.9	6.8	2.7	22	19	12	7.6	2.5	2.1	1.1	2.8
15	.77	5.4	5.5	2.5	8.0	15	17	7.2	2.2	2.1	1.4	2.6
16	.77	4.0	4.7	2.3	3.0	14	52	6.9	1.8	1.9	1.8	2.6
17	.77	3.2	5.2	2.1	2.5	11	33	13	2.2	1.4	1.2	2.4
18	.64	3.0	8.4	2.0	2.2	11	23	20	2.3	1.4	1.1	2.2
19	.55	2.8	7.1	1.9	1.9	9.8	29	12	2.3	1.4	1.1	2.1
20	.55	2.4	6.2	1.8	1.8	9.3	27	9.6	1.9	1.4	1.1	1.9
21	.55	2.1	5.2	1.7	1.7	9.2	27	8.2	1.7	1.3	1.1	1.9
22	.57	2.1	14	1.6	1.6	8.9	30	6.8	1.4	1.3	1.1	1.8
23	.83	1.9	4.4	1.5	2.0	8.2	27	6.3	1.4	1.3	1.1	1.7
24	.81	1.7	3.9	1.5	8.0	8.2	22	5.8	2.2	1.3	1.1	2.1
25	.71	1.7	4.1	1.4	28	8.2	22	5.5	1.9	1.3	1.8	3.0
26	.78	1.7	5.5	1.3	15	8.0	30	5.3	1.7	1.3	4.1	2.1
27	1.1	1.7	6.7	1.3	13	7.7	23	5.3	1.7	1.3	3.1	4.4
28	.95	1.7	4.2	1.2	11	12	19	5.2	6.6	1.3	1.7	14
29	1.2	8.9	17	1.2	---	29	16	4.7	22	1.3	1.3	11
30	.98	11	26	1.1	---	31	16	4.3	13	1.2	2.2	7.4
31	.77	---	13	1.1	---	22	---	4.1	---	1.9	5.3	---
TOTAL	27.59	118.79	192.4	101.7	137.32	365.7	626	291.5	107.9	72.5	51.7	110.1
MEAN	.89	3.96	6.21	3.28	4.90	11.8	20.9	9.40	3.60	2.34	1.67	3.67
MAX	2.2	22	26	12	28	39	52	20	22	8.2	5.3	14
MIN	.55	.69	2.4	1.1	.90	4.5	12	4.1	1.4	1.2	1.1	1.7
CFSM	.19	.85	1.33	.70	1.05	2.52	4.47	2.01	.77	.50	.36	.78
IN.	.22	.94	1.53	.81	1.09	2.91	4.98	2.32	.86	.58	.41	.88

CAL YR 1984 TOTAL 4276.09 MEAN 11.68 MAX 265 MIN .55 CFSM 2.50 IN. 33.99
WTR YR 1985 TOTAL 2203.20 MEAN 6.04 MAX 52 MIN .55 CFSM 1.29 IN. 17.51

01064490 SWIFT RIVER AT CONWAY, N. H.

LOCATION.--Lat 43°59'05", long 71°07'18", Carroll County, Hydrologic Unit 01060002, on left downstream side of covered bridge, about 100 ft downstream from bridge on West Side Road, approximately 500 ft upstream from mouth, at Conway.

DRAINAGE AREA.--114 mi^2.

PERIOD OF RECORD.--November 1984 to September 1985 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 433.43 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 27 to Apr. 24, Apr. 27 to June 5, July 14 to Aug. 13. Records good except for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during the period November 1984 to September 1985, 2,100 ft^3/s, Sept. 28, gage height, 9.60 ft^3/s; minimum, 28 ft^3/s, Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		59	176	278	44	293	439	520	145	288	123	103
2		56	145	231	44	256	376	454	137	223	81	69
3		55	126	191	43	221	338	397	123	186	59	61
4		52	120	161	44	189	322	358	114	161	51	52
5		61	113	145	42	176	313	333	107	140	47	47
6		90	83	131	41	217	321	378	122	126	45	69
7		80	96	123	40	216	418	521	130	119	43	131
8		67	98	120	38	205	426	477	110	115	43	97
9		62	113	117	36	200	397	380	107	108	44	70
10		68	110	114	38	191	346	339	106	126	41	69
11		128	108	110	42	186	329	332	99	120	39	84
12		530	108	108	48	349	324	334	100	100	39	71
13		434	117	106	117	679	313	314	124	94	38	66
14		293	177	103	248	510	303	300	120	87	37	62
15		215	151	100	217	406	327	276	109	83	36	59
16		181	141	97	169	325	702	256	100	81	36	54
17		155	141	90	135	303	965	245	141	71	36	51
18		131	185	80	119	277	600	493	142	66	34	50
19		120	151	71	107	246	788	592	131	64	30	50
20		101	147	66	98	247	763	408	98	60	32	48
21		96	129	62	89	236	759	335	75	56	35	45
22		92	131	58	81	225	803	299	69	53	34	42
23		94	139	55	141	224	844	271	66	49	31	39
24		88	123	53	381	223	738	249	79	48	30	41
25		83	128	51	530	220	643	229	126	47	39	60
26		80	81	49	426	206	959	218	104	49	74	52
27		79	98	48	381	210	884	215	101	56	113	334
28		75	89	47	337	233	656	222	400	50	72	1030
29		131	253	47	---	436	528	193	751	46	51	325
30		250	555	46	---	610	503	162	416	44	48	242
31		---	337	45	---	501	---	151	---	44	123	---
TOTAL		4006	4669	3103	4076	9016	16427	10251	4552	2960	1584	3573
MEAN		134	151	100	146	291	548	331	152	95.5	51.1	119
MAX		530	555	278	530	679	965	592	751	288	123	1030
MIN		52	81	45	36	176	303	151	66	44	30	39
CFSM		1.18	1.32	.88	1.28	2.55	4.81	2.90	1.33	.84	.45	1.04
IN.		1.31	1.52	1.01	1.33	2.94	5.36	3.35	1.49	.97	.52	1.17

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: Dec. 20-28, Jan. 1 to Feb. 12, Feb. 17-22, Feb. 27 to Mar. 11, Mar. 15-27, Apr. 1-5, 10-15. 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.--62 years (water years 1904-09, 1930-84), 934 ft^3/s.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges 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)
Sept. 28	0215	*9,310	*8.19	No other peak greater than base discharge.			

Minimum daily discharge, 100 ft^3/s Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	220	616	900	190	520	1200	2250	498	848	392	361
2	241	212	475	700	185	480	920	1860	485	641	343	260
3	463	205	406	560	185	450	780	1490	439	525	241	223
4	321	186	382	460	180	420	690	1270	402	470	207	201
5	308	216	360	390	180	400	650	1140	379	414	188	186
6	239	298	296	330	175	390	964	1480	416	371	175	216
7	207	313	327	310	175	375	1380	2180	481	356	165	360
8	190	294	332	370	175	360	1410	1970	405	340	155	318
9	188	234	357	350	170	350	1290	1390	384	324	155	254
10	195	258	338	330	170	345	960	1200	370	338	145	239
11	192	364	324	310	170	340	800	1600	337	329	135	269
12	190	1280	329	295	220	984	780	1600	328	295	130	256
13	189	1610	343	285	740	1920	700	1340	396	278	130	229
14	178	874	591	275	1590	1350	650	1350	407	265	125	212
15	199	592	494	265	1350	900	600	1080	391	256	120	201
16	187	481	436	255	1030	720	2260	921	354	261	120	190
17	165	417	423	250	650	580	3900	875	380	255	130	180
18	158	361	592	240	500	510	2170	1700	395	232	125	178
19	152	334	544	235	400	460	2630	2360	422	221	130	169
20	152	285	430	230	330	470	2650	1390	357	210	115	163
21	152	286	350	225	300	445	2640	1130	303	203	115	155
22	152	268	270	220	285	410	2800	988	281	195	110	147
23	166	269	230	215	573	410	3220	867	266	192	105	141
24	177	260	220	215	1550	405	2850	784	279	186	100	143
25	174	248	215	210	3350	390	2550	715	342	176	125	193
26	175	246	210	205	2200	380	3460	662	303	180	207	206
27	197	248	205	200	800	390	3540	653	303	205	381	598
28	217	245	205	200	600	681	2500	774	743	213	322	4680
29	227	379	1150	195	---	1590	2010	654	2540	194	226	1280
30	252	1130	3130	195	---	2310	1910	556	1300	176	197	778
31	223	---	1390	190	---	1790	---	508	---	187	328	---
TOTAL	6387	12613	15970	9610	18423	21525	54864	38737	14686	9336	5642	12986
MEAN	206	420	515	310	658	694	1829	1250	490	301	182	433
MAX	463	1610	3130	900	3350	2310	3900	2360	2540	848	392	4680
MIN	152	186	205	190	170	340	600	508	266	176	100	141
CFSM	.54	1.09	1.34	.81	1.71	1.80	4.75	3.25	1.27	.78	.47	1.12
IN.	.62	1.22	1.54	.93	1.78	2.08	5.30	3.74	1.42	.90	.55	1.25

CAL YR 1984 TOTAL 404272 MEAN 1105 MAX 15100 MIN 136 CFSM 2.87 IN. 39.06
WTR YR 1985 TOTAL 220779 MEAN 605 MAX 4680 MIN 100 CFSM 1.57 IN. 21.33

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.--No estimated daily discharges. Records good. Flow regulated by Ossipee and Silver Lakes and Pine River Pond, combined capacity, 1,430,000,000 ft^3. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--43 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, 1,720 ft^3/s Mar. 15, gage height, 5.70 ft; minimum, 80 ft^3/s Aug. 17, 18, Jan. 16; minimum daily, 84 ft^3/s Aug. 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	199	195	453	585	247	1130	765	734	203	232	212	168
2	201	195	452	608	246	1170	772	725	201	260	212	168
3	206	195	452	601	244	1100	980	523	200	258	194	168
4	208	197	452	575	239	922	1090	423	198	256	193	168
5	206	197	449	552	213	819	1080	423	197	245	187	167
6	207	198	448	527	183	778	1070	426	198	238	187	168
7	208	231	447	494	185	748	1070	428	201	230	181	168
8	209	249	443	477	186	726	983	429	199	225	180	168
9	397	250	441	456	185	699	937	432	197	221	180	168
10	595	250	439	432	186	675	938	432	199	226	179	168
11	722	252	436	414	187	654	934	432	193	212	178	168
12	702	261	435	401	188	692	817	433	191	195	177	168
13	684	605	433	387	230	1100	742	432	192	194	179	168
14	668	824	477	374	299	1610	742	431	192	191	174	167
15	396	816	512	365	452	1700	740	372	189	226	173	167
16	233	667	511	302	538	1630	584	306	187	205	172	166
17	233	578	416	341	559	1510	492	308	187	190	84	166
18	233	528	366	330	558	1380	505	311	188	189	122	166
19	204	662	387	323	543	1280	816	341	191	188	196	165
20	189	762	416	318	524	1140	990	394	189	186	198	164
21	189	582	417	311	500	994	981	428	187	186	197	164
22	189	478	427	301	484	920	971	731	190	185	200	162
23	188	475	426	291	476	881	965	863	188	187	186	162
24	189	470	416	282	511	849	958	568	187	190	171	162
25	189	465	410	276	639	829	948	320	187	182	170	162
26	190	462	376	272	809	802	825	320	186	185	171	162
27	191	458	354	266	912	641	753	320	185	181	171	222
28	191	455	353	262	937	511	751	321	187	183	170	426
29	193	453	360	257	---	652	747	321	194	187	169	433
30	193	452	434	253	---	725	742	321	214	210	168	433
31	193	---	531	248	---	748	---	237	---	209	168	---
TOTAL	8995	12862	13369	11881	11460	30015	25688	13485	5797	6452	5499	5832
MEAN	290	429	431	383	409	968	856	435	193	208	177	194
MAX	722	824	531	608	937	1700	1090	863	214	260	212	433
MIN	188	195	353	248	183	511	492	237	185	181	84	162

CAL YR 1984 TOTAL 315215 MEAN 861 MAX 5950 MIN 188
WTR YR 1985 TOTAL 151335 MEAN 415 MAX 1700 MIN 84

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.--No estimated daily discharges. Records fair. Flow regulated by Great East and Lovell Lakes and Horn, Wilson, and Milton (also controls Northeast and Town House) Ponds, combined usable capacity, 1,280,000,000 ft^3. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--17 years, 200 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, 1,220 ft^3/s Sept. 27, gage height, 5.05 ft; minimum daily, 29 ft^3/s Feb. 3.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	126	39	118	44	271	216	43	43	39	38	36
2	89	118	39	141	30	263	202	43	43	39	38	36
3	92	118	39	137	29	257	196	44	43	39	38	36
4	103	118	39	129	79	245	199	46	42	39	38	36
5	162	118	39	123	107	241	205	48	42	39	38	36
6	181	118	39	115	107	218	208	53	42	39	38	36
7	154	96	40	112	107	201	210	88	42	39	38	36
8	135	78	40	110	66	210	211	109	42	39	42	36
9	132	66	40	82	33	224	196	102	42	39	39	36
10	138	55	40	64	33	217	178	78	42	38	39	36
11	138	55	40	66	76	265	119	62	42	38	39	35
12	128	55	40	68	109	387	59	62	41	38	39	33
13	115	55	40	68	133	727	61	58	41	38	39	33
14	107	55	40	68	228	725	63	57	40	38	39	33
15	116	99	40	68	308	600	60	53	39	38	39	33
16	136	156	40	67	315	480	52	52	39	38	39	59
17	136	158	41	66	292	398	51	52	39	38	39	94
18	136	155	42	66	260	331	45	52	39	38	38	92
19	136	177	62	66	233	292	39	53	39	38	38	92
20	136	196	85	66	209	279	40	53	39	38	38	69
21	136	134	86	66	189	264	44	55	39	38	38	46
22	141	54	97	66	181	252	49	55	39	38	38	46
23	147	54	95	66	174	240	63	53	39	38	38	46
24	147	54	93	66	183	235	55	48	39	38	38	46
25	147	54	88	66	226	200	43	43	39	38	38	46
26	146	54	84	65	273	183	43	42	39	38	38	89
27	142	45	82	63	289	185	43	42	39	38	38	565
28	142	39	79	62	286	190	42	42	39	38	38	382
29	142	39	76	61	---	203	42	43	39	38	37	214
30	141	39	84	61	---	209	42	43	39	38	36	223
31	136	---	102	61	---	207	---	43	---	38	36	---
TOTAL	4122	2738	1830	2503	4599	9199	3076	1717	1211	1187	1186	2636
MEAN	133	91.3	59.0	80.7	164	297	103	55.4	40.4	38.3	38.3	87.9
MAX	181	196	102	141	315	727	216	109	43	39	42	565
MIN	85	39	39	61	29	183	39	42	39	38	36	33

CAL YR 1984 TOTAL 88162 MEAN 241 MAX 3210 MIN 35
WTR YR 1985 TOTAL 36004 MEAN 98.6 MAX 727 MIN 29

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: July 10, 11, Dec. 4-10, Jan. 2-23, 25-29, Feb. 1-12, 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.--51 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)
Mar. 12	2030	*190	*3.40	No other peak greater than base discharge.			

Minimum discharge, 0.28 ft^3/s July 25, Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.5	7.3	16	3.5	27	18	7.4	5.9	3.1	13	2.3
2	7.6	2.5	6.1	14	3.5	27	23	6.5	5.0	2.2	3.2	1.2
3	6.9	2.8	6.6	12	3.4	24	27	9.5	4.2	1.7	1.5	1.2
4	3.1	2.6	14	11	3.4	19	29	14	3.6	1.5	1.3	1.9
5	2.2	5.6	11	10	3.3	14	28	11	3.1	1.3	1.0	2.3
6	3.2	7.2	9.5	9.5	3.3	16	26	12	3.6	1.3	1.1	8.1
7	2.8	4.9	9.0	9.0	3.3	15	24	21	3.2	1.5	1.2	7.2
8	2.2	4.2	8.5	8.2	3.2	15	21	16	2.6	1.1	.98	3.4
9	2.1	3.5	7.0	7.8	3.2	20	19	16	2.2	1.0	1.0	2.3
10	2.0	3.6	7.8	7.8	3.2	27	16	16	3.6	.88	1.1	5.6
11	2.1	11	12	8.2	3.2	30	15	14	3.3	1.5	1.1	3.8
12	2.2	46	15	7.6	4.0	107	14	12	2.8	1.1	1.7	2.2
13	2.1	22	17	7.0	67	140	13	11	3.7	1.0	1.3	1.7
14	2.0	15	19	6.6	57	95	12	11	3.2	1.2	.91	1.6
15	1.8	12	15	6.3	42	67	12	9.1	2.5	.95	1.0	1.4
16	1.8	11	13	6.0	34	47	12	8.3	2.5	1.0	1.1	1.8
17	1.9	9.7	16	5.8	26	41	12	5.8	3.9	1.5	.87	1.8
18	2.1	8.6	18	5.6	22	36	11	8.0	4.4	1.7	.73	1.4
19	2.6	8.1	16	5.4	20	30	13	13	4.7	1.1	.79	2.1
20	3.3	7.1	16	5.3	18	29	12	9.9	3.2	.84	.93	1.8
21	3.5	6.3	14	5.2	16	27	11	7.7	2.5	.74	1.1	1.2
22	5.5	6.0	19	5.0	17	24	11	8.9	2.2	.70	1.1	1.2
23	14	5.4	21	4.9	23	22	13	7.1	1.9	.61	.65	1.9
24	13	5.2	17	4.8	36	21	11	6.5	1.9	.62	.33	3.3
25	12	4.7	16	4.6	41	20	11	8.9	1.8	.53	.65	29
26	16	4.6	14	4.5	36	18	9.6	8.4	1.7	.70	1.7	12
27	11	4.3	12	4.4	37	16	8.7	7.8	2.2	1.2	1.3	13
28	2.9	4.3	11	4.1	29	17	8.6	9.8	7.5	1.1	.78	18
29	3.2	7.0	12	4.1	---	19	8.3	9.9	7.0	.71	.60	11
30	3.2	9.8	21	3.8	---	17	7.7	7.5	4.5	.57	1.4	7.3
31	2.7	---	19	3.5	---	15	---	6.1	---	.83	7.4	---
TOTAL	142.6	247.5	419.8	218.0	561.5	1042	456.9	320.1	104.4	35.78	52.82	153.0
MEAN	4.60	8.25	13.5	7.03	20.1	33.6	15.2	10.3	3.48	1.15	1.70	5.10
MAX	16	46	21	16	67	140	29	21	7.5	3.1	13	29
MIN	1.6	2.5	6.1	3.5	3.2	14	7.7	5.8	1.7	.53	.33	1.2
CFSM	.38	.68	1.12	.58	1.66	2.78	1.26	.85	.29	.10	.14	.42
IN.	.44	.76	1.29	.67	1.73	3.20	1.40	.98	.32	.11	.16	.47

CAL YR 1984 TOTAL 9254 MEAN 25.3 MAX 328 MIN 1.5 CFSM 2.09 IN. 28.45
WTR YR 1985 TOTAL 3754.40 MEAN 10.3 MAX 140 MIN .33 CFSM .85 IN. 11.54

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. 2 to Feb. 7. Records good except for period of estimated daily discharges, which are fair. Some regulation by Pawtuckaway and Mendums Ponds; combined capacity, about 600,000,000 ft^3. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--51 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, 1,420 ft^3/s Mar. 14, gage height, 5.94 ft; minimum daily, 11 ft^3/s Aug. 23, 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	113	96	232	57	315	209	77	59	51	46	45
2	25	98	96	207	62	299	234	77	56	48	50	40
3	63	84	94	190	66	281	258	80	51	43	40	35
4	67	75	139	170	70	242	275	112	49	38	37	29
5	72	78	142	160	74	155	278	114	43	34	32	26
6	58	102	133	145	75	243	280	116	43	31	27	59
7	53	91	169	135	74	232	271	174	43	30	23	147
8	49	89	144	125	72	219	253	197	42	28	21	142
9	50	84	150	115	67	245	232	184	40	27	19	118
10	99	77	130	110	69	277	221	155	37	25	18	130
11	180	95	134	105	67	300	183	129	34	22	18	119
12	179	333	150	100	67	631	184	108	35	21	17	92
13	169	298	169	95	383	1200	163	95	34	21	17	74
14	138	261	191	88	634	1380	144	93	32	21	15	61
15	117	216	194	84	654	1260	139	83	31	22	14	51
16	97	178	189	82	633	939	137	73	32	24	14	48
17	85	152	191	78	521	736	132	68	35	28	15	133
18	76	133	212	76	394	597	128	76	40	30	14	228
19	70	119	216	74	318	492	138	113	45	26	14	177
20	61	107	222	72	278	435	134	119	44	33	13	140
21	59	98	214	70	234	399	125	114	40	29	12	129
22	57	89	241	68	212	360	115	157	37	26	12	124
23	74	84	299	66	241	330	132	122	35	23	11	97
24	142	81	276	64	320	310	129	111	34	19	11	84
25	162	79	277	62	406	292	125	93	30	17	14	234
26	140	76	229	60	443	270	115	74	29	17	18	276
27	199	74	233	59	426	251	97	70	29	18	21	253
28	234	71	258	58	385	229	97	63	37	19	19	318
29	195	76	281	57	---	217	96	75	51	17	16	259
30	158	95	282	56	---	217	86	66	51	15	18	229
31	132	---	269	55	---	206	---	66	---	16	44	---
TOTAL	3271	3606	6020	3118	7302	13559	5110	3254	1198	819	660	3897
MEAN	106	120	194	101	261	437	170	105	39.9	26.4	21.3	130
MAX	234	333	299	232	654	1380	280	197	59	51	50	318
MIN	11	71	94	55	57	155	86	63	29	15	11	26
CFSM	.58	.66	1.06	.55	1.43	2.39	.93	.57	.22	.14	.12	.71
IN.	.66	.73	1.22	.63	1.48	2.76	1.04	.66	.24	.17	.13	.79

CAL YR 1984 TOTAL 134113 MEAN 366 MAX 3080 MIN 10 CFSM 2.00 IN. 27.26
WTR YR 1985 TOTAL 51814 MEAN 142 MAX 1380 MIN 11 CFSM .78 IN. 10.53

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 mi².

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

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

REMARKS.--Estimated daily discharges: Jan. 3 to Feb. 11. Records good except for periods of estimated record, which are fair, and those below 2.0 ft³/s, which are poor.

AVERAGE DISCHARGE.--23 years, 7.19 ft³/s, 19.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 358 ft³/s Apr. 2, 1973, gage height, 7.74 ft, from rating curve extended above 210 ft³/s; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 13	1000	122	5.93	Mar. 12	1945	*139	*6.10

Minimum discharge, 0.07 ft³/s July 11, 14, 25, 26, Aug. 14, 15, 24, 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.3	3.6	5.8	.46	5.3	5.1	1.8	2.3	1.8	3.1	4.3
2	1.7	1.3	3.0	5.2	.45	5.2	8.3	1.7	2.2	1.2	4.7	2.4
3	4.1	1.1	2.9	4.5	.44	7.6	12	2.5	1.7	.94	2.0	1.2
4	3.6	.99	7.5	3.8	.43	5.6	11	6.7	1.4	.81	.88	.77
5	2.0	1.6	7.5	3.0	.42	3.0	9.0	5.6	1.1	.74	.41	.48
6	1.3	3.0	5.2	2.5	.41	2.8	8.0	5.1	1.6	.66	.29	19
7	.96	3.3	5.7	2.1	.40	2.8	6.8	17	2.0	.60	.24	39
8	.87	2.5	5.4	1.9	.39	3.6	5.9	14	1.9	.46	.24	14
9	.66	2.0	4.3	1.7	.38	7.4	5.7	6.9	1.5	.52	.24	5.6
10	.60	1.9	3.7	1.3	.37	13	4.6	4.0	1.3	.58	.21	7.2
11	.60	4.0	4.5	1.0	.36	16	3.7	3.2	1.0	.31	.13	7.9
12	.60	29	7.2	.90	1.6	73	3.2	2.5	.91	.09	.12	4.5
13	.66	20	9.8	.85	87	82	2.8	2.1	1.0	.08	.10	2.6
14	1.1	9.0	11	.80	44	36	2.4	1.7	.98	.08	.08	1.8
15	.83	5.4	7.7	.77	22	19	2.7	1.4	.68	.14	.07	1.4
16	.64	4.1	5.8	.75	10	27	3.0	1.4	.86	.14	.18	1.1
17	.60	2.8	5.7	.73	5.6	8.7	2.7	1.2	1.4	.24	.12	.71
18	.70	2.5	7.3	.70	4.4	7.8	2.6	2.6	1.8	.21	.10	.45
19	.77	2.3	6.9	.67	3.9	6.4	2.8	4.6	2.0	.21	.09	.40
20	.93	1.9	6.9	.65	4.0	5.9	3.4	3.7	1.4	.20	.11	.44
21	1.0	1.7	6.7	.64	3.6	6.0	3.1	13	1.1	.15	.11	.40
22	1.1	1.3	11	.62	3.8	5.2	3.0	24	.83	.14	.09	.36
23	2.6	1.2	20	.60	6.7	4.7	3.9	8.5	.82	.14	.09	.27
24	2.9	1.1	13	.59	14	4.7	3.9	5.6	.76	.10	.08	.51
25	2.4	1.1	9.6	.57	14	4.5	2.9	3.2	.59	.08	.16	3.4
26	2.2	1.1	8.1	.55	12	4.0	2.5	1.9	.55	.13	.28	5.0
27	2.7	1.1	5.1	.53	8.7	3.9	2.2	1.5	.80	.18	.29	4.5
28	2.6	1.1	3.5	.52	15	4.3	1.9	1.7	2.1	.11	.23	7.3
29	2.5	1.9	3.5	.50	---	5.6	1.8	2.6	3.0	.09	.18	5.8
30	2.1	3.4	7.2	.48	---	5.9	1.7	2.2	2.3	.09	.49	3.2
31	1.8	---	7.9	.47	---	5.0	---	1.8	---	.17	3.5	---
TOTAL	48.32	114.99	217.2	45.69	264.81	391.9	132.6	155.7	41.88	11.39	18.91	145.99
MEAN	1.56	3.83	7.01	1.47	9.46	12.6	4.42	5.02	1.40	.37	.61	4.87
MAX	4.1	29	20	5.8	87	82	12	24	3.0	1.8	4.7	39
MIN	.60	.99	2.9	.47	.36	2.8	1.7	1.2	.55	.08	.07	.27
CFSM	.31	.77	1.41	.30	1.90	2.54	.89	1.01	.28	.07	.12	.98
IN.	.36	.86	1.63	.34	1.98	2.93	.99	1.17	.31	.09	.14	1.09

CAL YR 1984 TOTAL 3473.80 MEAN 9.52 MAX 126 MIN .04 CFSM 1.92 IN. 26.0
WTR YR 1985 TOTAL 1589.38 MEAN 4.35 MAX 87 MIN .07 CFSM .88 IN. 11.90

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, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 16-19, 24-27, Dec. 4-9, 22-24, Jan. 2 to Feb. 12, 23, Mar. 3-8, 19, and June 6-27. Records good except for periods of estimated daily record, 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.--22 years, 4.82 ft^3/s, 22.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft^3/s June 30, 1973, gage height, 6.36 ft, from rating curve extended above 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)
Mar. 12	1430	106	2.88	Sept. 27	1845	*259	*3.53

Minimum discharge, 0.01 ft^3/s July 31.

REVISIONS.--The peak discharges greater than the base discharge of 90 ft^3/s for the 1984 water year have been revised as shown in the following table:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0845	154	3.12	May 29	1345	345	3.80
Feb. 15	2000	150	3.10	June 7	0415	*776	*4.74
Apr. 5	2015	696	4.59				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.92	4.1	5.2	.70	7.3	5.3	3.3	1.1	.53	.29	.13
2	1.8	.80	2.8	4.0	.68	4.0	4.2	3.1	.92	.37	.11	.10
3	1.6	.76	2.4	3.5	.68	3.5	3.6	2.6	.82	.28	.08	.10
4	1.1	.70	2.2	3.0	.68	3.0	3.4	2.5	.70	.21	.06	.09
5	.92	1.3	1.6	2.5	.67	2.5	3.7	2.8	.56	.17	.05	.08
6	.80	2.8	1.4	2.3	.67	2.4	11	5.3	1.0	.15	.04	.70
7	.74	1.6	1.3	2.0	.66	2.2	14	12	.94	.14	.04	.51
8	.68	1.1	1.2	1.7	.66	2.0	7.5	8.8	.63	.13	.04	.50
9	.39	.92	1.3	1.6	.66	1.9	5.7	5.1	.46	.11	.04	.32
10	.38	1.5	1.4	1.5	.66	1.9	4.2	3.7	.36	.14	.03	.40
11	.35	3.0	1.7	1.4	.66	1.9	3.0	3.3	.24	.14	.03	.89
12	.32	22	2.4	1.3	.66	52	3.9	2.9	.25	.11	.03	.70
13	.31	6.8	4.2	1.2	13	25	3.8	3.0	.29	.09	.03	.43
14	.31	3.5	7.1	1.1	8.1	9.1	3.8	2.6	.30	.06	.03	.30
15	.31	2.5	4.2	.98	3.3	6.1	4.1	2.4	.30	.08	.03	.23
16	.31	2.2	3.3	.90	2.1	6.5	13	2.3	.27	.08	.03	.17
17	.31	1.8	3.2	.87	1.8	4.0	9.9	2.4	.26	.08	.03	.15
18	.31	1.6	4.2	.83	1.6	3.6	5.0	27	.22	.08	.03	.09
19	.31	1.4	3.9	.80	1.5	3.5	7.0	13	.21	.07	.02	.07
20	.31	1.3	3.2	.80	1.4	3.2	6.0	6.6	.18	.06	.02	.06
21	.31	1.2	2.4	.80	1.3	3.7	7.1	4.8	.15	.06	.02	.06
22	.32	1.1	2.3	.78	1.3	4.1	9.9	3.9	.11	.05	.02	.05
23	.40	1.0	2.1	.77	1.5	3.5	8.8	3.3	.08	.04	.02	.05
24	.42	.96	2.1	.76	19	3.1	6.4	2.5	.08	.03	.02	.04
25	.42	.90	2.0	.75	28	3.2	5.3	2.6	.07	.02	.03	.04
26	.42	.86	2.3	.74	7.9	3.1	5.9	2.2	.07	.02	.19	.04
27	.42	.80	4.0	.73	5.8	2.6	5.4	2.4	.07	.02	.22	33
28	.42	.78	2.8	.72	11	7.6	4.1	2.8	.31	.02	.12	15
29	3.2	7.5	23	.72	---	23	3.6	2.3	.86	.02	.08	4.9
30	2.0	8.0	26	.72	---	15	3.4	1.7	.82	.02	.07	2.9
31	1.2	---	8.8	.70	---	7.4	---	1.2	---	.04	.18	---
TOTAL	21.33	81.60	134.9	45.67	116.64	221.9	182.0	144.4	12.63	3.42	2.03	62.10
MEAN	.69	2.72	4.35	1.47	4.17	7.16	6.07	4.66	.42	.11	.06	2.07
MAX	3.2	22	26	5.2	28	52	14	27	1.1	.53	.29	33
MIN	.24	.70	1.2	.70	.66	1.9	3.0	1.2	.07	.02	.02	.04
CFSM	.23	.93	1.48	.50	1.42	2.44	2.06	1.59	.14	.04	.02	.70
IN.	.27	1.03	1.71	.58	1.48	2.81	2.30	1.83	.16	.04	.03	.79

CAL YR 1984 TOTAL 1888.84 MEAN 5.16 MAX 198 MIN .14 CFSM 1.76 IN. 23.90
WTR YR 1985 TOTAL 1028.62 MEAN 2.82 MAX 52 MIN .02 CFSM .96 IN. 13.02

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. 6-12, 22-31, Jan. 1 to Mar. 14. 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.--82 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)
Mar. 13	--	ice jam	*9.63	Sept. 28	0400	*11,400	8.42

Minimum discharge, 130 ft^3/s Aug. 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	291	1180	1800	290	1300	2640	2620	752	970	425	357
2	255	264	915	1400	290	1200	2010	2210	714	757	428	281
3	664	262	765	1100	280	1100	1600	1740	640	645	280	243
4	484	257	740	900	280	1000	1430	1460	579	647	230	226
5	474	266	659	800	270	970	1370	1310	536	555	202	205
6	330	637	620	700	270	940	1490	2060	600	482	184	362
7	268	511	590	680	260	910	2890	3610	751	459	172	816
8	243	383	560	650	260	880	2700	3200	637	437	175	531
9	229	325	530	600	255	860	2280	2200	568	430	188	387
10	226	377	570	560	255	840	1730	1760	532	436	174	430
11	225	799	500	540	250	800	1520	2060	473	443	163	611
12	217	3430	570	520	250	2000	1460	2040	451	410	154	481
13	209	3270	615	490	400	5500	1370	1780	533	363	154	379
14	201	1540	1060	480	1700	4000	1280	1770	605	334	148	313
15	199	1050	929	470	1200	2620	1220	1400	614	322	140	275
16	193	885	800	440	900	1950	2510	1210	527	313	146	244
17	186	797	700	430	750	1510	4870	1190	513	303	163	222
18	181	692	857	410	620	1260	2830	3310	552	268	143	209
19	181	634	844	400	590	1060	3570	4800	606	250	134	201
20	181	565	779	380	550	1100	3410	2640	534	236	134	191
21	186	560	681	370	540	1060	3370	1930	467	221	142	181
22	186	524	640	360	500	952	3780	1550	431	209	136	170
23	198	522	600	350	510	993	4630	1280	409	210	134	164
24	219	467	570	340	1200	1030	4020	1140	475	199	133	162
25	214	446	550	330	4000	1000	3250	1040	530	189	140	167
26	208	433	530	325	4100	886	3950	940	469	185	195	176
27	211	427	510	310	2000	920	4190	946	458	210	465	376
28	224	423	500	310	1400	1240	3020	1210	766	238	421	6800
29	363	612	800	300	---	3910	2420	1050	1990	197	283	2090
30	502	2120	3700	300	---	4950	2180	890	1270	179	232	1140
31	356	---	3000	290	---	3470	---	788	---	179	285	---
TOTAL	8170	23769	26864	17335	24170	52211	78990	57134	18982	11276	6503	18390
MEAN	264	792	867	559	863	1684	2633	1843	633	364	210	613
MAX	664	3430	3700	1800	4100	5500	4870	4800	1990	970	465	6800
MIN	157	257	500	290	250	800	1220	788	409	179	133	162
CFSM	.42	1.27	1.39	.90	1.39	2.71	4.23	2.96	1.02	.59	.34	.99
IN.	.49	1.42	1.61	1.04	1.45	3.12	4.72	3.42	1.14	.67	.39	1.10

CAL YR 1984 TOTAL 596113 MEAN 1629 MAX 24700 MIN 155 CFSM 2.62 IN. 35.65
WTR YR 1985 TOTAL 343794 MEAN 942 MAX 6800 MIN 133 CFSM 1.51 IN. 20.56

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.--46 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, 76 ft^3/s Dec. 24, gage height, 10.42 ft; minimum daily, 1.4 ft^3/s July 9, 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	61	61	60	60	60	63	59	61	1.8	59	60
2	59	61	61	60	60	60	63	58	61	1.7	59	60
3	60	61	61	60	60	61	63	58	61	1.7	59	60
4	59	61	61	60	60	60	63	59	61	1.8	59	59
5	59	61	61	60	60	60	64	59	60	1.7	58	59
6	59	61	61	60	60	60	64	59	60	1.8	57	59
7	59	61	61	60	60	60	64	59	60	1.7	57	59
8	59	61	61	60	59	60	64	59	60	1.6	57	59
9	59	61	63	60	59	60	64	59	60	1.4	57	59
10	59	61	62	60	59	60	64	59	60	1.4	57	59
11	59	61	61	60	59	60	64	59	60	21	57	59
12	59	61	61	60	59	64	62	59	60	56	57	60
13	60	61	61	60	61	64	60	59	60	58	57	59
14	63	61	61	60	60	63	60	59	60	59	58	59
15	63	61	61	60	60	63	59	59	60	58	61	59
16	63	61	61	60	60	63	59	59	60	59	60	59
17	63	61	61	60	60	63	59	59	60	60	58	59
18	63	61	61	60	60	63	59	60	60	60	58	59
19	63	61	61	60	60	63	59	60	60	60	57	57
20	63	61	61	60	60	63	59	60	60	60	59	58
21	62	61	61	60	60	62	59	60	59	59	60	59
22	61	61	61	60	60	62	59	60	59	59	60	59
23	61	61	61	60	59	63	59	59	59	59	60	60
24	61	61	61	60	60	63	59	59	59	59	60	60
25	61	61	60	60	60	63	59	59	59	59	60	60
26	61	61	60	60	60	63	59	60	59	59	60	60
27	61	61	60	60	60	63	59	61	59	59	60	60
28	61	61	60	60	60	63	59	61	36	59	60	59
29	61	61	60	60	---	63	59	61	1.8	59	60	59
30	61	61	61	60	---	63	59	60	1.8	59	60	59
31	61	---	60	60	---	63	---	61	---	59	60	---
TOTAL	1882	1830	1888	1860	1675	1921	1826	1842	1656.6	1216.6	1821	1776
MEAN	60.7	61.0	60.9	60.0	59.8	62.0	60.9	59.4	55.2	39.2	58.7	59.2
MAX	63	61	63	60	61	64	64	61	61	60	61	60
MIN	59	61	60	60	59	60	59	58	1.8	1.4	57	57

CAL YR 1984 TOTAL 50120.5 MEAN 136.9 MAX 854 MIN 7.5
WTR YR 1985 TOTAL 21194.2 MEAN 58.1 MAX 64 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 mi².

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: Dec. 22-28, Jan. 1 to Feb. 13, Mar. 2-4. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft³/s Mar. 19, 1936, gage height, 16.09 ft, from flood-marks, from rating curve extended above 2,700 ft³/s on basis of contracted-opening measurement of peak flow; minimum daily, 2.7 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage Height (ft)	Date	Time	Discharge (ft³/s)	Gage Height (ft)
Mar. 13	2000	*982	*5.25				

Minimum discharge, 5.7 ft³/s Aug. 23-25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	42	167	240	35	279	381	109	73	82	36	17
2	50	40	124	180	35	250	307	103	65	57	29	17
3	156	38	99	130	35	220	260	98	57	46	20	16
4	95	34	91	100	35	190	241	94	52	39	15	14
5	59	47	81	90	35	171	255	93	50	33	12	12
6	42	75	70	80	34	163	285	146	59	32	11	75
7	32	70	78	75	34	140	405	226	63	36	9.9	172
8	30	56	73	68	34	134	414	225	55	32	11	94
9	27	50	75	62	34	131	354	171	49	31	9.8	86
10	26	51	71	60	34	127	284	141	43	51	9.0	98
11	23	63	72	58	34	120	247	125	38	52	8.6	83
12	22	208	80	54	34	400	235	118	42	34	8.2	69
13	23	249	91	52	150	899	219	105	50	30	7.5	61
14	21	166	124	50	296	860	203	95	51	25	6.8	53
15	20	119	160	46	271	625	193	85	45	23	7.2	48
16	20	97	129	45	214	436	234	79	41	20	7.2	44
17	20	86	113	44	170	330	282	86	41	18	6.7	42
18	19	77	129	43	137	263	238	395	46	15	6.1	39
19	19	72	139	42	111	210	234	519	53	14	6.3	38
20	20	62	126	40	96	213	241	314	44	13	7.0	37
21	19	56	92	39	85	217	218	209	37	12	6.6	34
22	20	53	107	38	80	199	233	158	32	11	6.2	33
23	26	52	90	37	96	188	279	127	29	9.7	5.9	32
24	34	51	78	37	194	207	224	106	27	9.0	5.9	35
25	39	51	60	37	408	210	190	90	29	8.5	9.8	37
26	40	50	66	36	459	182	169	88	28	8.9	16	35
27	45	49	64	36	390	181	153	96	29	9.4	16	153
28	44	48	63	35	317	267	140	145	98	8.6	14	593
29	46	68	123	35	---	498	129	150	214	8.1	12	482
30	48	178	384	35	---	597	120	108	137	7.9	11	249
31	47	---	343	35	---	495	---	85	---	9.0	21	---
TOTAL	1142	2358	3562	1959	3887	9402	7367	4689	1677	785.1	358.7	2798
MEAN	36.8	78.6	115	63.2	139	303	246	151	55.9	25.3	11.6	93.3
MAX	156	249	384	240	459	899	414	519	214	82	36	593
MIN	10	34	60	35	34	120	120	79	27	7.9	5.9	12
CFSM	.43	.92	1.34	.74	1.62	3.53	2.87	1.76	.65	.29	.14	1.09
IN.	.50	1.02	1.54	.85	1.69	4.08	3.19	2.03	.73	.34	.16	1.21

CAL YR 1984 TOTAL 65345.7 MEAN 179 MAX 2600 MIN 9.8 CFSM 2.09 IN 28.32
WTR YR 1985 TOTAL 39984.8 MEAN 110 MAX 899 MIN 5.9 CFSM 1.28 IN 17.34

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, 3.68 ft May 20-23, 29; minimum daily, 2.34 ft Jan. 31, Feb. 1, 9, 11.

GAGE HEIGHT (FEET) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.02	2.96	2.69	2.81	2.34	2.77	3.33	3.61	3.63	3.39	3.07	2.65
2	3.16	2.90	2.67	2.81	2.36	2.77	3.36	3.61	3.63	3.37	3.04	2.64
3	3.28	2.90	2.69	2.79	2.37	2.76	3.37	3.61	3.62	3.35	3.02	2.62
4	3.25	2.88	2.70	2.79	2.37	2.78	3.39	3.60	3.60	3.34	3.01	2.61
5	3.23	2.89	2.71	2.76	2.37	2.87	3.44	3.62	3.60	3.33	3.00	2.61
6	3.20	2.89	2.75	2.74	2.38	2.87	3.46	3.66	3.61	3.32	2.99	2.68
7	3.20	2.86	2.74	2.74	2.37	2.88	3.47	3.67	3.58	3.31	2.97	2.69
8	3.19	2.86	2.75	2.72	2.35	2.89	3.50	3.64	3.58	3.29	2.96	2.67
9	3.18	2.83	2.75	2.66	2.34	2.89	3.50	3.65	3.57	3.28	2.95	2.67
10	3.18	2.84	2.75	2.64	2.35	2.89	3.51	3.64	3.54	3.30	2.94	2.71
11	3.16	2.85	2.75	2.66	2.34	2.89	3.52	3.64	3.51	3.30	2.91	2.67
12	3.15	2.92	2.74	2.63	2.35	3.00	3.52	3.65	3.54	3.30	2.87	2.65
13	3.16	2.90	2.73	2.60	2.53	3.14	3.52	3.64	3.51	3.28	2.86	2.63
14	3.14	2.84	2.73	2.60	2.56	3.20	3.54	3.64	3.48	3.26	2.85	2.59
15	3.13	2.88	2.76	2.57	2.59	3.24	3.54	3.63	3.47	3.26	2.84	2.57
16	3.11	2.85	2.70	2.53	2.61	3.25	3.53	3.62	3.47	3.24	2.82	2.58
17	3.09	2.81	2.75	2.54	2.63	3.27	3.50	3.62	3.47	3.22	2.80	2.56
18	3.08	2.81	2.74	2.54	2.64	3.27	3.55	3.65	3.48	3.20	2.79	2.55
19	3.07	2.76	2.76	2.53	2.64	3.28	3.57	3.67	3.49	3.17	2.78	2.54
20	3.06	2.72	2.77	2.53	2.64	3.27	3.59	3.68	3.48	3.16	2.75	2.52
21	3.06	2.70	2.77	2.50	2.65	3.26	3.59	3.68	3.47	3.13	2.72	2.52
22	3.05	2.70	2.82	2.49	2.66	3.26	3.62	3.68	3.47	3.10	2.70	2.52
23	3.07	2.68	2.81	2.47	2.67	3.25	3.65	3.68	3.46	3.04	2.67	2.52
24	3.05	2.67	2.81	2.47	2.69	3.24	3.64	3.66	3.43	3.03	2.66	2.53
25	3.02	2.67	2.77	2.45	2.71	3.22	3.63	3.66	3.39	3.00	2.68	2.53
26	3.03	2.66	2.75	2.42	2.73	3.20	3.62	3.65	3.39	3.01	2.72	2.54
27	3.02	2.65	2.76	2.41	2.74	3.21	3.61	3.66	3.39	3.00	2.71	2.60
28	3.00	2.65	2.77	2.40	2.75	3.23	3.63	3.67	3.42	2.98	2.68	2.64
29	3.00	2.67	2.77	2.37	---	3.24	3.61	3.68	3.42	2.97	2.65	2.65
30	3.00	2.67	2.77	2.36	---	3.25	3.62	3.66	3.40	2.94	2.67	2.64
31	2.96	---	2.78	2.34	---	3.27	---	3.64	---	2.95	2.69	---
MEAN	3.11	2.80	2.75	2.58	2.53	3.09	3.53	3.65	3.50	3.19	2.83	2.60
MAX	3.28	2.96	2.82	2.81	2.75	3.28	3.65	3.68	3.63	3.39	3.07	2.71
MIN	2.96	2.65	2.67	2.34	2.34	2.76	3.33	3.60	3.39	2.94	2.65	2.52
(†)	15790	15190	15430	14540	15370	16420	17080	17140	16620	15940	15190	15100
(‡)	-63.5	-231	+89.6	-332	+343	+392	+255	+22.4	-201	-254	-280	-34.7

CAL YR 1984 MEAN 3.74 MAX 5.94 MIN 2.65 (†) -32.9
WTR YR 1985 MEAN 3.02 MAX 3.68 MIN 2.34 (‡) -27.3

† 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.--No estimated daily discharges. Records good. Flow regulated by powerplants prior to 1967 and by Winnipesaukee (station 01080000), Winnisquam 4.5 mi upstream, Wentworth, Merrymeeting (Reservoirs in Merrimack River basin), and other lakes upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--48 years, 709 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, 1,230 ft^3/s Mar. 21, gage height, 4.62 ft, minimum daily, 225 ft^3/s July 29, 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	416	307	682	511	712	408	294	285	272	250	245
2	329	416	307	718	374	707	500	289	290	265	290	245
3	524	406	296	921	363	712	586	289	318	264	300	245
4	501	404	296	930	357	691	598	289	292	265	260	245
5	412	419	292	919	358	788	605	287	292	264	245	255
6	374	428	309	907	333	807	605	353	289	267	240	270
7	357	424	314	751	322	805	610	503	273	272	238	268
8	342	426	322	440	344	943	595	437	262	273	230	265
9	322	417	314	470	381	948	513	395	262	268	230	262
10	356	414	307	551	491	985	340	323	262	265	235	260
11	386	428	303	672	393	974	327	307	262	278	238	258
12	383	504	309	704	315	973	328	297	263	269	245	258
13	374	521	339	706	387	1070	325	292	274	267	248	260
14	364	505	391	694	425	1070	322	297	265	265	245	260
15	356	488	489	704	419	1150	320	305	263	274	235	265
16	341	470	418	747	419	1120	303	294	263	266	230	265
17	331	452	395	724	385	1120	295	289	263	264	230	255
18	322	440	405	720	370	1090	310	289	271	262	232	250
19	318	430	430	705	355	1110	322	289	269	262	235	250
20	326	430	442	700	346	1180	306	292	266	263	235	250
21	309	435	447	724	344	1200	296	292	270	265	230	250
22	303	418	453	718	399	1190	303	292	364	268	260	245
23	313	408	439	684	463	1200	329	289	370	263	285	240
24	311	404	435	672	576	1190	394	280	286	263	285	230
25	342	404	433	655	233	1050	537	270	262	235	285	248
26	464	377	433	646	262	764	516	260	279	232	265	360
27	464	293	456	679	292	695	513	250	263	228	250	380
28	421	287	444	650	296	600	524	250	272	227	240	320
29	417	296	445	631	---	413	496	260	294	225	240	280
30	412	312	467	665	---	381	330	270	289	225	240	260
31	412	---	501	646	---	366	---	275	---	230	242	---
TOTAL	11463	12472	11938	21735	10513	28004	12756	9398	8433	8006	7713	7944
MEAN	370	416	385	701	375	903	425	303	281	258	249	265
MAX	524	521	501	930	576	1200	610	503	370	278	300	380
MIN	277	287	292	440	233	366	295	250	262	225	230	230

CAL YR 1984 TOTAL 393799 MEAN 1079 MAX 4480 MIN 240
WTR YR 1985 TOTAL 150375 MEAN 412 MAX 1200 MIN 225

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: Jan. 6 to Feb. 10, Feb. 13 to Mar. 3, Mar. 6, 7. Records good except for estimated daily discharges, which are fair. Flow regulated by mills and Nubanusit Lake, Edward MacDowell Reservoir since 1950 (Reservoirs in Merrimack River basin), and other reservoirs upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--51 years, 84.6 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, 412 ft^3/s Mar. 15, gage height, 3.45 ft; minimum daily, 7.4 ft^3/s Nov. 8.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	24	33	76	20	140	68	32	41	28	11	19
2	19	21	45	86	20	119	77	32	29	37	24	16
3	37	17	49	105	20	84	92	33	17	36	27	15
4	72	15	45	114	20	67	92	33	13	27	22	43
5	87	18	35	111	20	67	92	42	12	20	20	47
6	82	14	33	82	20	69	92	48	12	20	14	113
7	41	8.8	28	52	20	68	92	47	10	20	14	127
8	21	7.4	28	44	20	68	92	47	8.2	14	14	64
9	35	11	28	44	20	68	91	53	8.1	8.6	15	48
10	45	26	28	44	18	68	91	57	8.1	9.0	14	91
11	47	29	28	44	16	68	91	56	8.1	9.1	14	100
12	47	34	28	44	17	95	91	43	8.3	9.0	14	65
13	47	29	28	37	49	179	90	27	8.1	9.1	14	41
14	47	28	29	27	51	332	73	21	7.9	9.0	10	32
15	39	33	29	22	74	384	52	21	7.8	9.4	8.4	23
16	26	47	29	20	101	382	44	21	7.9	11	8.6	17
17	22	73	34	20	103	335	49	21	8.5	19	8.4	14
18	22	79	40	20	99	277	54	24	12	27	12	12
19	22	77	43	20	94	126	56	39	14	26	15	10
20	22	57	47	20	69	79	57	74	18	21	15	9.8
21	20	45	55	20	61	95	56	84	21	13	15	9.2
22	17	33	67	20	43	95	55	63	21	9.7	15	8.5
23	20	21	64	20	41	95	48	50	21	9.7	15	8.3
24	19	18	50	20	62	95	43	31	21	9.7	14	8.3
25	19	18	43	20	90	78	44	20	14	9.7	16	8.4
26	30	18	38	20	112	68	44	20	9.2	10	24	8.0
27	35	18	33	20	134	68	44	15	9.2	9.9	40	15
28	33	18	36	20	142	68	36	12	12	9.6	46	44
29	31	19	49	20	---	68	32	12	15	9.4	59	38
30	27	23	60	20	---	68	32	25	16	9.5	28	26
31	24	---	70	20	---	68	---	41	---	10	23	---
TOTAL	1062.8	879.2	1252	1252	1556	3941	1970	1144	418.4	479.4	589.4	1080.5
MEAN	34.3	29.3	40.4	40.4	55.6	127	65.7	36.9	13.9	15.5	19.0	36.0
MAX	87	79	70	114	142	384	92	84	41	37	59	127
MIN	7.8	7.4	28	20	16	67	32	12	7.8	8.6	8.4	8.0

CAL YR 1984 TOTAL 77346.3 MEAN 211 MAX 604 MIN 5.1
WTR YR 1985 TOTAL 15624.7 MEAN 42.8 MAX 384 MIN 7.4

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: Jan. 2-20, 29-31, Feb. 1-11. Records good except for periods of estimated daily discharges and periods of backwater from grass Oct. 1 to Nov. 9 and June 3 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.--22 years (water years 1963-85), 701 ft^3/s.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft^3/s Mar. 15, gage height, 5.17 ft; minimum daily discharge, 51 ft^3/s Sept. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	276	312	645	180	881	611	286	121	335	211	104
2	117	283	249	600	175	790	606	274	176	189	177	104
3	151	283	159	500	170	681	603	162	200	179	156	105
4	157	222	166	450	170	627	603	137	313	151	113	208
5	126	137	213	400	165	593	642	173	319	253	84	289
6	133	158	297	350	160	747	702	210	310	285	186	568
7	182	162	314	300	160	833	730	380	313	167	292	1240
8	185	142	319	280	155	689	748	577	223	141	247	921
9	158	154	260	260	155	685	860	514	168	117	152	761
10	129	200	181	240	150	683	780	448	71	70	108	579
11	124	216	158	230	150	686	684	406	59	85	68	667
12	137	344	277	220	237	956	568	397	91	73	81	676
13	154	546	314	210	584	1850	513	413	131	107	81	698
14	154	561	331	200	1140	2180	485	407	88	77	86	670
15	148	474	289	195	1420	2350	487	376	130	81	82	545
16	133	431	222	190	1290	2320	482	355	91	123	88	213
17	127	398	156	185	955	2040	447	209	111	131	77	214
18	118	358	231	180	829	1710	414	212	103	152	75	317
19	112	255	425	175	720	1440	419	447	97	135	75	285
20	102	301	457	170	603	1270	427	455	104	149	79	188
21	96	343	389	160	481	1030	419	288	93	92	71	70
22	102	273	364	363	459	927	426	452	92	115	77	74
23	113	81	512	300	487	802	433	436	65	121	63	76
24	118	171	539	275	537	684	426	412	98	85	68	51
25	130	178	506	310	811	698	384	439	151	143	71	78
26	137	208	461	295	1080	690	379	295	241	261	79	78
27	147	188	358	265	1150	680	365	237	245	228	103	86
28	168	240	326	213	1070	547	337	142	271	107	89	459
29	187	287	364	200	---	575	346	270	347	72	98	573
30	193	316	589	195	---	635	292	235	369	73	96	440
31	226	---	648	190	---	628	---	195	---	86	102	---
TOTAL	4326	8186	10386	8746	15643	31907	15618	10239	5191	4383	3435	11337
MEAN	140	273	335	282	559	1029	521	330	173	141	111	378
MAX	226	561	648	645	1420	2350	860	577	369	335	292	1240
MIN	62	81	156	160	150	547	292	137	59	70	63	51

CAL YR 1984 TOTAL 323748 MEAN 885 MAX 4400 MIN 59
WTR YR 1985 TOTAL 129397 MEAN 355 MAX 2350 MIN 51

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: Dec. 14-17, Jan. 16 to Feb. 12, Mar. 6-12, May 19 to June 4. 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.--23 years, 11.4 ft^3/s, 26.92 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)
Mar. 12	1745	224	6.88	Sept. 27	1845	*359	*7.70

Minimum discharge, 0.18 ft^3/s July 31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.80	5.0	13	1.5	11	14	4.9	4.5	4.0	11	1.7
2	5.6	.65	3.4	9.0	1.5	10	12	4.5	3.5	2.3	1.9	.91
3	3.7	.64	2.7	7.0	1.5	9.3	10	4.3	2.5	1.7	.83	.83
4	1.8	.64	2.4	5.5	1.5	8.2	13	4.9	1.9	1.3	.57	.65
5	1.0	2.8	2.1	4.8	1.5	8.4	15	4.5	1.7	.99	.44	.53
6	.76	3.5	2.0	4.2	1.5	8.6	19	8.4	2.7	.97	.38	48
7	.64	2.0	1.8	3.7	1.5	8.2	28	21	2.5	1.4	.35	34
8	.60	1.4	1.7	3.3	1.5	7.8	21	11	1.9	1.1	.35	12
9	.60	1.1	1.8	3.0	1.5	8.0	16	8.0	1.6	.89	.43	6.3
10	.60	1.1	2.0	2.7	1.5	8.2	12	6.9	1.4	.80	.37	7.6
11	.56	1.4	2.2	2.5	1.5	7.8	11	6.2	1.2	.83	.32	6.0
12	.53	11	2.8	2.3	1.5	120	10	5.8	1.2	.71	.27	3.6
13	.49	5.7	6.0	2.2	34	78	8.8	6.0	1.6	.67	.24	2.5
14	.46	3.4	12	2.1	19	36	8.3	4.7	1.6	.66	.22	2.0
15	.43	2.5	7.1	2.0	10	23	7.9	3.8	1.3	.73	.24	1.5
16	.40	2.3	5.0	1.9	6.9	22	8.7	3.4	1.2	1.2	.53	1.1
17	.40	2.2	7.0	1.9	4.9	12	9.2	3.3	1.8	.76	.36	1.1
18	.40	2.2	11	1.8	3.7	10	8.0	27	2.6	.63	.28	.95
19	.40	2.2	8.9	1.8	3.2	11	9.8	17	5.0	.46	.28	.91
20	.43	1.7	6.8	1.8	2.9	9.6	10	10	2.3	.43	.37	.84
21	.46	1.7	4.5	1.7	3.0	10	8.9	9.0	1.6	.40	.30	.72
22	.46	1.6	4.0	1.7	2.6	8.6	9.5	7.5	1.2	.38	.27	.68
23	.59	1.4	3.7	1.7	7.4	8.8	10	6.5	1.1	.35	.25	.68
24	.64	1.3	3.4	1.6	38	10	8.5	5.8	.99	.29	.22	.91
25	.64	1.3	3.1	1.6	61	9.6	7.8	3.5	.91	.21	1.2	1.5
26	.67	1.3	2.9	1.6	26	7.6	7.3	3.3	.90	.23	2.2	1.1
27	.76	1.2	2.7	1.6	20	7.8	6.6	3.7	.90	.29	1.7	72
28	.76	1.2	2.6	1.6	21	19	6.3	6.0	4.7	.25	.80	49
29	.97	5.3	41	1.5	---	30	5.8	10	22	.20	.51	13
30	1.1	9.1	47	1.5	---	23	5.4	9.0	8.2	.18	.89	7.4
31	.97	---	18	1.5	---	16	---	6.0	---	.82	3.3	---
TOTAL	28.15	74.63	226.6	94.1	281.6	567.5	327.8	235.9	86.50	26.13	31.37	280.01
MEAN	.91	2.49	7.31	3.04	10.1	18.3	10.9	7.61	2.88	.84	1.01	9.33
MAX	5.6	11	47	13	61	120	28	27	22	4.0	11	72
MIN	.33	.64	1.7	1.5	1.5	7.6	5.4	3.3	.90	.18	.22	.53
CFSM	.16	.43	1.27	.53	1.76	3.18	1.90	1.32	.50	.15	.18	1.62
IN.	.18	.48	1.47	.61	1.82	3.67	2.12	1.53	.56	.17	.20	1.81

CAL YR 1984 TOTAL 4870.57 MEAN 13.31 MAX 300 MIN .24 CFSM 2.31 IN. 31.51
WTR YR 1985 TOTAL 2260.29 MEAN 6.19 MAX 120 MIN .18 CFSM 1.08 IN. 14.62

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: Jan. 6 to Feb. 13. 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.--60 years, 213 ft^3/s, 22.42 in/yr, adjusted for storage.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft^3/s Mar. 14; gage height, 5.41 ft; minimum, 8.0 ft^3/s Sept. 28.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	36	99	302	39	333	446	134	97	132	41	36
2	34	28	108	243	38	298	344	125	88	101	46	37
3	66	26	96	181	37	278	272	118	80	78	50	38
4	84	26	86	150	37	249	279	115	72	64	45	36
5	85	29	79	120	35	169	284	112	67	55	37	33
6	66	34	70	110	32	192	286	114	67	49	30	69
7	50	43	69	98	32	188	339	145	66	45	26	205
8	43	52	68	88	31	174	371	192	67	41	26	268
9	36	49	73	80	31	165	402	198	66	37	24	194
10	33	46	66	75	31	163	375	171	64	35	22	134
11	35	47	64	70	30	161	318	148	59	34	21	101
12	27	74	64	67	30	242	261	133	54	33	20	81
13	24	118	66	64	60	595	267	121	51	33	18	67
14	23	143	78	61	135	925	379	112	50	31	17	57
15	21	117	98	59	219	978	290	104	51	33	17	50
16	20	95	116	56	245	683	241	97	52	32	16	44
17	20	84	110	54	211	481	244	92	56	30	19	40
18	20	79	105	52	172	378	257	102	60	28	19	36
19	19	69	114	50	144	300	253	224	67	26	18	33
20	18	61	124	49	123	272	251	338	63	24	18	30
21	18	55	117	48	109	264	250	264	59	23	17	28
22	18	51	94	47	101	257	239	203	55	21	16	26
23	20	48	105	45	104	238	228	159	51	19	15	24
24	20	46	96	44	136	234	223	132	47	17	14	23
25	21	45	104	43	233	239	206	113	43	16	17	25
26	24	44	77	43	355	231	188	99	39	16	22	26
27	27	44	78	42	419	213	172	91	36	16	28	20
28	29	44	77	41	374	214	158	92	40	15	30	124
29	33	46	81	41	---	262	151	106	73	14	28	338
30	34	63	149	40	---	376	144	119	126	14	27	303
31	34	---	253	39	---	449	---	111	---	14	31	---
TOTAL	1021	1742	2984	2502	3543	10201	8118	4384	1866	1126	775	2526
MEAN	32.9	58.1	96.3	80.7	127	329	271	141	62.2	36.3	25.0	84.2
MAX	85	143	253	302	419	978	446	338	126	132	50	338
MIN	18	26	64	39	30	161	144	91	36	14	14	20
MEAN†	32.9	58.2	97.3	79.8	128	339	259	141	62.2	36.1	25.0	84.9
CFSM†	.26	.45	.75	.62	.99	2.63	2.01	1.09	.48	.28	.19	.66
IN†	.29	.50	.87	.71	1.04	3.03	2.24	1.26	.54	.32	.22	.73

CAL YR 1984 TOTAL 94917 MEAN 259 MAX 1780 MIN 18 MEAN† 259 CFSM† 2.01 IN† 27.37
WTR YR 1985 TOTAL 40788 MEAN 112 MAX 978 MIN 14 MEAN† 112 CFSM† .87 IN† 11.77

† Adjusted for change in contents for Blackwater Reservoir.

MERRIMACK RIVER BASIN

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 mi^2.

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

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

GAGE.--Water-stage recorder. Elevation of gage is 290 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 9, 10, 19-21, Jan. 1 to Feb. 12, and Mar. 23. Records fair except for estimated daily discharges and periods of backwater from debris, Oct. 1-11, Oct. 23 to Nov. 7, May 29 to June 5, and Aug. 2-30, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--34 years, 113 ft^3/s, 19.98 in/yr.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 13	1000	*807	*9.65	No other peak greater than base discharge.			

Minimum discharge, 2.0 ft^3/s Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	22	49	90	22	184	123	63	39	29	66	15
2	60	20	43	80	22	170	126	59	39	24	52	10
3	150	19	39	70	23	155	131	58	33	20	31	8.6
4	92	18	43	60	24	132	137	63	25	17	22	7.3
5	66	25	39	55	24	103	150	59	22	14	17	6.4
6	50	40	37	50	24	131	159	65	24	14	14	27
7	40	37	42	48	24	112	160	96	26	14	12	62
8	35	31	41	46	24	116	145	98	24	14	12	44
9	28	29	35	44	24	126	127	82	21	13	11	32
10	24	29	33	42	24	128	111	73	20	12	8.8	30
11	33	33	39	39	23	128	102	66	18	12	5.4	27
12	53	94	45	37	22	321	99	59	17	12	5.5	20
13	42	110	54	35	176	716	91	56	17	12	4.8	16
14	36	80	65	34	323	531	86	53	17	13	4.1	13
15	29	64	65	32	230	407	85	48	16	14	3.4	14
16	26	56	60	31	166	300	88	46	15	23	3.0	14
17	25	50	58	30	131	254	89	44	18	20	2.7	12
18	24	45	74	29	112	221	83	49	20	16	2.8	11
19	21	42	64	28	95	186	95	69	37	14	2.7	8.3
20	20	37	60	27	86	177	97	64	32	13	2.7	7.1
21	19	35	54	27	74	182	90	57	24	12	2.6	6.2
22	20	33	68	26	73	158	93	52	19	12	2.3	5.6
23	26	33	71	25	83	146	112	43	16	11	2.1	5.1
24	27	36	59	24	149	140	99	41	17	11	2.1	5.1
25	24	35	65	24	225	131	91	37	15	9.6	4.3	9.9
26	23	33	47	23	236	118	85	32	14	10	11	15
27	25	32	44	23	227	111	78	32	14	14	12	14
28	26	30	57	22	201	115	73	54	23	14	9.5	47
29	26	36	57	22	---	134	70	70	46	11	7.5	42
30	28	53	95	22	---	133	66	57	38	10	12	21
31	25	---	106	22	---	120	---	44	---	10	20	---
TOTAL	1153	1237	1708	1167	2867	6086	3141	1789	706	444.6	368.3	555.6
MEAN	37.2	41.2	55.1	37.6	102	196	105	57.7	23.5	14.3	11.9	18.5
MAX	150	110	106	90	323	716	160	98	46	29	66	62
MIN	19	18	33	22	22	103	66	32	14	9.6	2.1	5.1
CFSM	.48	.54	.72	.49	1.33	2.55	1.37	.75	.31	.19	.15	.24
IN.	.56	.60	.83	.57	1.39	2.95	1.52	.87	.34	.22	.18	.27

CAL YR 1984 TOTAL 57702.3 MEAN 158 MAX 2320 MIN 15 CFSM 2.06 IN. 27.95
WTR YR 1985 TOTAL 21222.5 MEAN 58.1 MAX 716 MIN 2.1 CFSM .76 IN. 10.28

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: Oct. 3-9, Jan. 18 to Mar. 18. Records good except for periods of estimated daily record, 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.--22 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, 583 ft^3/s Jan. 24, gage height, 7.07 ft; minimum daily, 3.7 ft^3/s Aug. 23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	42	32	77	35	150	87	38	16	21	9.4	9.9
2	17	40	30	77	38	140	90	29	14	20	10	9.1
3	35	33	29	78	41	135	93	27	13	19	8.8	8.4
4	41	29	31	73	42	130	97	29	11	17	7.7	7.6
5	35	36	30	68	42	120	102	29	10	14	6.8	7.0
6	32	37	32	60	42	115	105	33	11	12	6.2	42
7	25	37	33	57	42	115	105	62	12	13	5.5	92
8	23	39	32	53	42	110	99	60	11	12	5.4	94
9	21	42	32	45	42	110	90	47	10	10	5.4	94
10	74	79	30	38	42	110	82	39	9.8	8.7	5.3	70
11	66	78	30	73	42	110	77	34	8.3	8.5	5.1	51
12	51	95	31	44	42	120	71	30	7.3	7.8	4.7	38
13	47	88	32	36	45	80	66	28	7.8	7.8	4.4	30
14	46	70	36	39	43	280	65	26	7.5	7.4	4.2	24
15	46	58	40	39	43	340	61	24	7.2	8.3	4.1	20
16	46	50	39	38	46	330	58	22	7.1	9.4	4.1	17
17	46	44	40	32	50	315	55	21	8.4	9.2	4.1	15
18	46	40	46	36	53	300	53	24	9.9	8.7	4.1	13
19	46	36	50	39	53	289	54	31	11	7.5	4.1	12
20	46	32	51	38	53	184	56	31	10	7.0	4.1	11
21	42	30	48	38	52	134	55	28	9.3	6.4	4.1	11
22	40	28	54	38	51	118	56	23	8.0	6.1	4.0	9.7
23	44	25	57	38	49	108	61	20	7.5	6.0	3.7	8.8
24	41	24	54	38	47	102	58	20	7.4	5.2	3.8	8.3
25	34	24	52	37	45	97	56	20	7.1	4.4	4.9	9.8
26	60	23	49	33	120	90	54	17	6.7	4.6	7.8	10
27	55	22	44	32	160	86	50	16	7.2	6.7	8.6	6.1
28	44	22	42	32	155	84	46	18	14	6.2	8.3	85
29	40	25	45	33	---	87	43	23	25	5.6	7.1	140
30	37	32	68	36	---	88	41	21	24	5.2	6.7	56
31	36	---	78	39	---	85	---	18	---	5.1	9.7	---
TOTAL	1269.8	1260	1297	1434	1557	4662	2086	888	318.5	289.8	182.2	1009.7
MEAN	41.0	42.0	41.8	46.3	55.6	150	69.5	28.6	10.6	9.35	5.88	33.7
MAX	74	95	78	78	160	340	105	62	25	21	10	140
MIN	7.8	22	29	32	35	80	41	16	6.7	4.4	3.7	6.1
MEAN†	41.8	41.8	42.7	46.1	64.3	140.9	68.7	28.0	10.5	9.2	5.9	35.2
CFSM†	.66	.66	.68	.73	1.02	2.23	1.09	.44	.17	.15	.09	.56
IN†	.76	.74	.78	.84	1.10	2.58	1.21	.51	.19	.17	.11	.62

CAL YR 1984 TOTAL 76391.87 MEAN 209.3 MAX 1700 MIN 0.75 MEAN† 208.7 CFSM† 3.31 IN† 45.02
WTR YR 1985 TOTAL 16254.0 MEAN 44.5 MAX 340 MIN 3.7 MEAN† 44.7 CFSM† .71 IN† 9.61

† 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 mi^2.

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

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

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

REMARKS.--Estimated daily discharges: Jan. 11-20, 26, 27, Feb. 9. 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.--49 years, 5,295 ft^3/s.

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

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 14	1300	*18,000	*8.17				

Minimum daily discharge, 665 ft^3/s Aug. 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1510	1690	3050	7360	2010	7830	8450	3870	2380	3020	1210	1230
2	1580	1750	3190	6110	1820	7030	7250	4230	1900	2590	1060	1300
3	2140	1570	2320	5330	1660	6680	6460	4880	1740	1900	1030	973
4	2000	1510	2640	5340	1290	6080	6070	2890	2030	1360	1010	848
5	1790	2480	2430	4840	1390	4880	5600	3090	1960	1340	1000	1400
6	1160	1310	2080	4020	1590	5530	5660	3720	1690	1460	1050	2430
7	1510	2190	2220	4010	1780	5290	6260	4610	1540	1410	929	2680
8	1300	1720	2050	3910	1340	5520	7200	5650	1800	1390	826	4060
9	1800	2100	2140	2660	1200	5270	7580	6270	1700	1510	1370	3110
10	1630	2260	2160	2250	1410	5400	6940	4650	1700	1110	1100	2930
11	1400	1900	2030	2200	1610	5210	6140	4290	1420	1060	823	2390
12	1760	3560	2100	2500	1820	7000	5060	3840	1360	1080	1160	1770
13	1780	4770	2420	2800	3490	14300	4770	4590	1400	1090	970	2380
14	1660	5910	2120	2750	4570	17600	4790	3760	1730	1480	872	2120
15	1580	4830	3450	2700	5870	16400	4340	3740	1350	1130	807	1870
16	1560	3570	3110	2500	5860	13500	4410	3260	1600	1270	837	1530
17	1240	2470	2750	2500	5200	11300	4840	3000	1370	1210	925	1660
18	1180	2420	3020	2400	4560	10100	6390	3260	1280	1110	787	1260
19	1360	2610	3350	2300	3680	8880	6370	3900	1830	1090	665	1370
20	1060	2260	3780	2200	3530	7850	6130	7190	1330	1300	815	1320
21	1100	2260	3030	1980	3010	7150	5880	5970	1290	1290	756	1150
22	1210	1970	3120	1450	2930	6900	5910	4450	1390	1140	897	966
23	1290	1930	3180	2350	3230	6400	6250	3560	1400	991	708	1080
24	1350	1910	2900	2160	3810	6260	7510	4020	1680	997	814	850
25	1260	1260	3240	2210	6220	5910	7190	2180	1220	852	981	995
26	1800	1220	2580	1800	8410	5870	6310	2940	1240	1470	890	2150
27	1620	1860	2130	1700	10100	4480	5760	2290	1450	1150	945	2280
28	1540	1700	2470	1770	8960	4650	6570	2800	1640	987	916	2570
29	1790	2150	2460	1850	---	5440	5820	2230	2000	855	878	4760
30	1550	2480	4280	1940	---	7790	4890	2860	3000	881	901	5590
31	1730	---	6080	1770	---	9270	---	2250	---	826	1120	---
TOTAL	47240	71620	87880	91660	102350	241770	182800	120240	49420	40349	29052	61022
MEAN	1524	2387	2835	2957	3655	7799	6093	3879	1647	1302	937	2034
MAX	2140	5910	6080	7360	10100	17600	8450	7190	3000	3020	1370	5590
MIN	1060	1220	2030	1450	1200	4480	4340	2180	1220	826	665	848

CAL YR 1984 TOTAL 2593214 MEAN 7085 MAX 40600 MIN 720
WTR YR 1985 TOTAL 1125403 MEAN 3083 MAX 17600 MIN 665

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. 7-21, Nov. 5-14, Dec. 3, 4, 6-8, 22-28, Jan. 1 to Feb. 22, Feb. 27 to Mar. 11, Mar. 30 to Apr. 22, Aug. 1-30. 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.--22 years, 7.13 ft^3/s, 26.90 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)
Feb. 13	0345	ice jam	*5.44	Mar. 12	1315	*80	5.39

Minimum discharge, 0.29 ft^3/s June 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.86	2.8	6.2	.86	8.0	6.5	2.3	1.1	1.4	2.5	1.5
2	4.3	.83	2.1	4.5	.85	6.4	5.5	2.2	1.1	.83	.87	.77
3	1.6	.88	1.7	4.0	.85	6.0	5.0	3.5	1.1	.71	.62	.73
4	.96	.89	1.6	3.5	.85	5.6	4.5	3.7	.91	.63	.54	.57
5	.71	3.6	1.7	2.7	.85	5.4	4.6	3.1	.74	.56	.47	.48
6	.60	4.0	1.4	2.4	.84	5.2	4.8	3.4	1.1	.43	.42	23
7	.56	1.5	1.3	2.1	.84	5.0	5.0	4.8	1.0	.42	.42	15
8	.52	1.2	1.3	2.0	.84	4.9	4.6	3.6	.72	.43	.51	5.8
9	.51	.90	1.4	1.8	.84	4.8	4.1	3.1	.68	.34	.77	3.5
10	.49	.82	1.5	1.6	.84	4.7	4.1	2.7	.59	1.3	.54	4.6
11	.48	1.0	2.1	1.5	4.0	4.7	4.1	2.5	.52	1.6	.51	3.4
12	.47	5.4	3.0	1.4	10	47	4.1	2.3	.63	.65	.46	2.4
13	.46	4.5	6.7	1.3	20	31	4.1	2.3	.77	.55	.40	1.7
14	.45	3.9	8.5	1.2	15	21	4.0	2.1	.59	.45	.42	1.4
15	.45	3.1	5.6	1.1	13	16	4.0	2.1	.49	.46	.42	1.2
16	.44	2.6	4.2	1.1	10	10	4.1	2.0	.65	.96	1.1	.97
17	.44	2.2	5.3	1.1	7.0	7.5	4.3	1.9	1.1	1.3	.64	.88
18	.43	1.9	5.2	1.0	6.0	6.2	4.0	3.4	1.4	.59	.52	.80
19	.43	1.8	4.5	1.0	4.5	5.8	4.7	3.2	1.2	.43	.53	.70
20	.42	1.5	4.0	1.0	3.8	5.4	4.7	3.1	.70	.36	.58	.66
21	.42	1.3	3.4	.98	3.5	5.3	4.3	2.6	.56	.33	.58	.58
22	.61	1.3	3.0	.97	3.5	5.0	4.0	2.7	.48	.41	.55	.55
23	2.2	1.2	2.8	.95	4.2	4.8	3.6	2.3	.48	.42	.52	.57
24	1.0	1.2	2.6	.93	25	4.7	3.5	2.2	.47	.38	.52	1.0
25	.91	1.1	2.4	.90	24	4.8	3.3	1.9	.42	.36	1.6	1.5
26	1.8	1.1	2.2	.89	16	4.8	2.9	1.9	.45	.50	2.3	.96
27	1.9	1.1	2.1	.88	11	4.8	2.6	1.9	.63	.66	1.4	18
28	1.4	1.0	2.1	.88	12	4.5	2.8	2.8	5.1	.47	.73	14
29	1.4	4.0	11	.88	---	4.5	2.7	3.0	5.6	.41	.51	5.8
30	.95	4.1	11	.87	---	10	2.5	2.1	2.3	.36	.70	4.0
31	.98	---	6.9	.87	---	8.5	---	1.2	---	.50	3.2	---
TOTAL	28.70	60.78	115.4	52.50	200.96	272.3	123.0	81.9	33.58	19.20	25.85	117.02
MEAN	.93	2.03	3.72	1.69	7.18	8.78	4.10	2.64	1.12	.62	.83	3.90
MAX	4.3	5.4	11	6.2	25	47	6.5	4.8	5.6	1.6	3.2	23
MIN	.41	.82	1.3	.87	.84	4.5	2.5	1.2	.42	.33	.40	.48
CFSM	.26	.56	1.03	.47	1.99	2.44	1.14	.73	.31	.17	.23	1.08
IN.	.30	.63	1.19	.54	2.08	2.81	1.27	.85	.35	.20	.27	1.21

CAL YR 1984 TOTAL 3155.33 MEAN 8.62 MAX 170 MIN .22 CFSM 2.39 IN. 32.61
WTR YR 1985 TOTAL 1131.19 MEAN 3.10 MAX 47 MIN .33 CFSM .86 IN. 11.69

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 1984 TO SEPTEMBER 1985

	Newfound Lake	Franklin Falls Reservoir	Edward MacDowell Reservoir
Sept. 30, 1984	1094	102	4.9
Oct. 31	1057	107	4.9
Nov. 30	1061	142	15.9
Dec. 31	1141	209	20.8
Jan. 31, 1985	962	105	15.1
Feb. 28	1158	167	21.6
Mar. 31	1255	238	7.9
Apr. 30	1438	146	7.3
May 31	1499	118	8.6
June 30	1350	129	11.5
July 31	1259	102	8.6
Aug. 31	1128	111	0
Sept. 30	1141	124	0

	Blackwater Reservoir	Everett Lake
Sept. 30, 1984	0.4	46.4
Oct. 31	.2	48.7
Nov. 30	.5	48.1
Dec. 31	3.3	50.4
Jan. 31, 1985	1.0	49.8
Feb. 28	5.1	76.4
Mar. 31	31.8	50.9
Apr. 30	1.0	48.7
May 31	.8	47.0
June 30	.9	47.5
July 31	.2	47.0
Aug. 31	.2	47.0
Sept. 30	2.0	50.9

01127880 BIG BROOK NEAR PITTSBURG, N. H.

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

DRAINAGE AREA.--6.36 mi^2.

PERIOD OF RECORD.--December 1963 to current year (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 1,680 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 3-28, 31, Jan. 1-31. Records good except those for estimated daily discharges and periods when flows are below 10 ft^3/s, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--20 years (water years 1965-84), 16.0 ft^3/s, 34.16 in/yr.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1984 to February 1986, 423 ft^3/s, Dec. 30, gage height, 4.31 ft; minimum daily discharge, 1.7 ft^3/s, Jan. 31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.5	19	65								
2	5.9	4.5	14	40								
3	7.1	4.1	13	23								
4	10	3.8	9.8	14								
5	8.5	17	8.8	11								
6	5.8	24	8.0	9.4								
7	4.5	14	7.5	8.2								
8	3.9	9.2	6.8	7.4								
9	3.9	8.0	6.2	6.6								
10	3.8	9.9	5.8	6.0								
11	3.5	14	5.6	5.4								
12	3.3	41	5.4	4.8								
13	3.1	38	6.3	4.4								
14	3.1	23	8.5	3.9								
15	2.9	19	13	3.6								
16	2.7	14	8.5	3.3								
17	2.7	13	7.4	3.1								
18	2.5	11	8.4	2.9								
19	2.4	17	8.6	2.7								
20	2.3	18	7.6	2.5								
21	3.7	9.9	7.2	2.4								
22	5.5	7.8	8.0	2.3								
23	4.2	13	7.3	2.2								
24	3.5	7.1	6.7	2.1								
25	3.1	13	6.2	2.0								
26	4.4	6.2	5.8	2.0								
27	4.9	6.2	6.7	1.9								
28	4.9	6.8	9.0	1.9								
29	4.6	21	151	1.8								
30	4.2	28	181	1.8								
31	3.6	---	100	1.7								
TOTAL	130.7	425.0	667.1	249.3								
MEAN	4.22	14.2	21.5	8.04								
MAX	10	41	181	65								
MIN	2.2	3.5	5.4	1.7								
CFSM	.66	2.23	3.38	1.26								
IN.	.76	2.49	3.90	1.46								

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.--68 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, 455 ft^3/s Sept. 4, gage height, 2.99 ft; minimum daily, 6.3 ft^3/s Apr. 13, 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	151	92	308	352	252	7.4	8.0	107	148	257	199
2	155	151	92	308	351	252	6.8	8.1	107	107	257	199
3	155	151	92	312	350	252	6.8	8.7	107	107	256	275
4	154	150	92	308	349	253	6.8	8.7	107	107	255	390
5	154	149	92	308	361	252	81	8.7	105	107	233	450
6	154	148	92	308	324	252	145	8.7	105	108	215	448
7	154	148	92	308	262	254	145	8.7	101	108	214	449
8	154	148	92	308	260	252	145	8.7	99	109	213	445
9	154	148	92	309	259	252	145	8.7	99	167	213	443
10	154	148	92	308	259	252	145	8.7	99	199	213	443
11	154	148	170	307	258	252	144	8.7	99	199	213	445
12	154	148	200	306	256	184	97	8.7	99	199	162	443
13	154	148	200	305	256	145	6.3	8.7	99	199	125	441
14	154	148	200	304	256	145	6.3	8.7	99	200	125	442
15	154	148	201	303	256	145	6.6	8.7	99	236	125	439
16	154	147	200	303	256	147	7.4	8.7	99	256	125	373
17	154	147	200	302	256	146	7.2	9.1	160	256	125	308
18	154	145	200	302	255	230	6.8	12	205	256	124	303
19	154	145	200	301	252	304	6.8	17	311	255	124	303
20	154	145	250	300	252	304	6.8	22	440	255	124	302
21	154	145	308	300	252	303	7.0	23	272	254	124	301
22	154	145	308	299	251	302	7.2	24	203	236	124	300
23	154	145	308	336	248	300	7.4	25	203	222	124	299
24	154	145	304	363	249	299	7.4	26	202	221	124	299
25	153	145	304	364	251	298	7.4	25	203	221	124	299
26	154	114	308	362	252	297	7.7	26	203	218	124	299
27	151	92	304	361	252	295	8.0	23	202	215	124	190
28	151	92	304	360	252	295	8.0	22	202	215	124	8.1
29	151	92	304	357	---	133	8.0	76	202	215	124	8.0
30	151	92	308	357	---	7.4	8.0	109	202	241	166	162
31	151	---	308	355	---	6.8	---	108	---	257	199	---
TOTAL	4761	4168	6309	9932	7687	7061.2	1205.1	685.0	4840	6093	5179	9705.1
MEAN	154	139	204	320	275	228	40.2	22.1	161	197	167	324
MAX	155	151	308	364	361	304	145	109	440	257	257	450
MIN	151	92	92	299	248	6.8	6.3	8.0	99	107	124	8.0

CAL YR 1984 TOTAL 66971 MEAN 183 MAX 1150 MIN 4.5
WTR YR 1985 TOTAL 67625.4 MEAN 185 MAX 450 MIN 6.3

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.--Estimated daily discharges: Dec. 7, 8, Aug. 7 to Sept. 4. Records good except for estimated daily discharges, which are fair. 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.--29 years, 568 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, 1,830 ft^3/s Apr. 17, gage height, 4.82 ft; minimum daily, 75 ft^3/s Sept. 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	168	360	447	781	430	446	599	142	330	799	390
2	243	179	314	389	781	411	508	441	158	233	730	330
3	268	179	269	448	776	367	458	338	130	243	667	435
4	315	178	262	490	772	497	427	280	115	251	638	710
5	314	211	260	493	767	532	505	250	102	238	675	650
6	287	384	237	480	680	538	666	307	183	254	760	420
7	270	292	240	513	548	533	865	325	292	456	760	353
8	262	241	245	625	542	529	773	348	240	484	755	322
9	261	223	248	662	541	525	711	270	252	628	760	537
10	271	222	246	654	536	517	657	239	239	555	570	761
11	263	244	389	654	535	514	637	309	217	706	400	761
12	258	465	487	681	532	536	497	241	233	563	395	306
13	253	645	497	695	536	588	179	207	268	485	390	75
14	251	426	551	702	539	606	171	189	419	451	385	215
15	248	334	524	709	538	571	221	163	447	492	380	709
16	246	308	514	718	541	537	805	144	449	583	440	636
17	246	301	520	710	541	527	1630	143	556	468	450	461
18	243	276	561	725	537	574	747	562	697	680	445	458
19	242	252	531	733	548	614	468	867	618	882	435	208
20	242	244	612	728	559	619	421	432	243	864	425	167
21	245	235	682	725	559	609	666	329	556	850	425	546
22	248	234	689	720	557	601	998	282	478	648	215	542
23	253	219	695	753	563	603	1180	233	431	472	215	541
24	250	230	684	775	453	600	1120	197	430	467	505	541
25	247	216	676	771	1020	594	1110	164	450	462	505	539
26	159	227	652	768	1020	589	1190	181	433	461	512	535
27	261	218	641	764	703	588	1340	193	432	465	512	397
28	261	224	652	760	509	629	858	363	421	459	512	148
29	178	351	767	756	---	701	661	240	413	456	512	168
30	231	474	1370	752	---	754	597	175	407	774	529	312
31	183	---	714	766	---	587	---	153	---	730	518	---
TOTAL	7737	8400	16089	20566	17514	17420	21512	9164	10451	16090	16219	13173
MEAN	250	280	519	663	626	562	717	296	348	519	523	439
MAX	315	645	1370	775	1020	754	1630	867	697	882	799	761
MIN	159	168	237	389	453	367	171	143	102	233	215	75

CAL YR 1984 TOTAL 191619 MEAN 524 MAX 2030 MIN 118
WTR YR 1985 TOTAL 174335 MEAN 478 MAX 1630 MIN 75

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: Nov. 5, 6, Dec. 5-8, 14, 15, Dec. 21 to Feb. 23, Mar. 6 to Mar. 27, May 6-15, June 3 to Aug. 7. Records good except for periods of estimated daily discharges, which are fair.

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

AVERAGE DISCHARGE.--37 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, 1,380 ft^3/s Apr. 17, gage height, unknown; minimum daily, 13 ft^3/s Oct. 1.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	21	178	253	25	240	341	338	84	51	367	144
2	14	22	146	195	25	220	261	257	88	53	431	102
3	46	23	101	150	26	178	208	202	66	58	360	108
4	84	23	98	131	26	143	183	170	60	60	165	530
5	62	48	93	120	28	125	161	156	54	61	117	315
6	44	143	141	109	29	108	311	233	484	125	45	182
7	33	89	142	98	29	96	494	360	175	177	38	140
8	25	54	149	89	30	92	314	247	112	249	42	119
9	27	57	131	81	30	90	266	195	91	134	56	104
10	31	60	95	72	30	89	188	163	82	182	45	97
11	29	78	89	68	29	89	180	222	71	249	39	93
12	26	92	90	64	28	97	166	166	74	110	38	86
13	27	321	148	58	28	115	139	140	231	89	32	78
14	24	204	226	53	28	124	154	119	315	66	28	71
15	21	106	131	50	29	118	448	110	201	62	29	61
16	19	138	122	47	30	112	985	102	130	128	54	54
17	18	143	154	44	31	106	1380	102	102	83	43	50
18	17	98	209	41	31	102	643	809	154	61	36	43
19	17	74	152	39	30	97	473	731	122	50	32	37
20	16	86	134	36	30	92	533	326	97	46	32	35
21	16	79	92	35	31	86	794	235	112	38	28	30
22	19	77	88	33	34	83	1160	186	72	36	24	26
23	20	58	88	31	39	81	1140	146	61	35	23	22
24	18	71	86	30	508	81	1010	119	68	28	24	21
25	21	54	86	29	1230	80	918	101	71	26	25	20
26	22	60	85	28	622	79	999	86	70	24	35	19
27	30	60	85	28	402	81	953	154	63	29	40	25
28	29	73	86	26	259	243	593	255	58	28	46	98
29	28	246	614	26	---	876	505	142	55	23	42	77
30	26	277	1380	25	---	833	392	104	50	252	76	53
31	23	---	445	25	---	519	---	85	---	244	388	---
TOTAL	845	2935	5864	2114	3697	5475	16292	6761	3473	2857	2780	2840
MEAN	27.3	97.8	189	68.2	132	177	543	218	116	92.2	89.7	94.7
MAX	84	321	1380	253	1230	876	1380	809	484	252	431	530
MIN	13	21	85	25	25	79	139	85	50	23	23	19
CFSM	.32	1.15	2.22	.80	1.55	2.08	6.39	2.56	1.36	1.08	1.06	1.11
IN.	.37	1.28	2.57	.93	1.62	2.40	7.13	2.96	1.52	1.25	1.22	1.24

CAL YR 1984 TOTAL 57213.0 MEAN 156 MAX 2250 MIN 9.0 CFSM 1.84 IN. 25.04
WTR YR 1985 TOTAL 55933 MEAN 153 MAX 1380 MIN 13 CFSM 1.80 IN. 24.48

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: Jan. 7 to Mar. 26. 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, 1,582 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, 9,130 ft^3/s Apr. 17, gage height, 8.36 ft; maximum gage height 9.30 ft Feb. 25 (backwater from ice); minimum daily discharge, 357 ft^3/s Sept. 20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	360	367	1270	2090	1050	1700	2270	2940	845	834	1700	1310
2	437	362	1060	1640	1020	1650	1890	2350	850	663	1470	906
3	703	390	854	1260	1010	1550	1640	1840	753	607	1160	791
4	925	375	784	1210	1000	1400	1460	1560	631	719	1030	1640
5	886	706	742	1310	990	1180	1340	1470	558	602	952	2250
6	674	1540	585	1250	970	1170	1770	2130	900	536	995	1250
7	566	1130	654	1000	780	1150	3230	2140	1670	1550	1010	962
8	512	800	591	990	800	1150	2680	2110	1130	1720	1020	819
9	493	657	774	1040	790	1100	2310	1680	947	1460	1040	713
10	484	617	810	1090	800	1050	1890	1440	882	1320	1020	1010
11	482	698	783	1100	820	1060	1740	1480	770	1800	720	1090
12	477	1510	1030	1090	880	1100	1590	1350	851	1410	648	1010
13	463	2590	1100	1100	810	1550	1310	1290	1410	1080	621	485
14	445	1690	1360	1120	860	1800	1150	1370	1890	928	601	373
15	431	1190	1170	1090	980	1650	1410	1150	1580	942	588	624
16	419	1050	1210	1070	940	1500	4980	1020	1290	4630	658	970
17	407	1040	1150	1060	910	1250	8780	998	1170	1990	702	763
18	399	894	1320	1040	880	1200	5930	2130	1330	1360	652	692
19	393	788	1240	1090	850	1180	3570	4650	2000	1360	617	669
20	399	725	1140	1080	860	1200	2860	2550	1300	1270	615	357
21	401	690	1050	1070	850	1120	3840	1740	1080	1190	612	464
22	436	662	1100	1030	840	1100	5410	1450	1090	1130	595	726
23	459	625	1340	1050	850	1080	6790	1230	939	847	514	726
24	451	636	1220	1090	1200	1130	6390	1090	967	782	576	721
25	424	597	1170	1080	2400	1100	5970	970	1040	749	693	725
26	445	593	861	1050	3200	1120	6180	921	1040	733	777	721
27	459	581	936	1040	2900	1230	6400	1050	1030	837	987	770
28	532	607	1330	1030	2400	1410	4840	1980	957	778	1060	1260
29	502	1100	2240	1020	---	3560	3570	1470	953	725	868	857
30	414	1660	5710	1010	---	4250	3100	1110	895	1230	856	599
31	420	---	3710	1020	---	3100	---	926	---	1390	1620	---
TOTAL	15298	26870	40294	35210	32640	46790	106290	51585	32748	37172	26977	26253
MEAN	493	896	1300	1136	1166	1509	3543	1664	1092	1199	870	875
MAX	925	2590	5710	2090	3200	4250	8780	4650	2000	4630	1700	2250
MIN	360	362	585	990	780	1050	1150	921	558	536	514	357

CAL YR 1984 TOTAL 553293 MEAN 1512 MAX 12000 MIN 274
WTR YR 1985 TOTAL 478127 MEAN 1310 MAX 8780 MIN 357

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. 5-12, 21-29, Jan. 1 to Mar. 8, 15-28. Records good except for estimated daily discharges and shifting control Oct. 1 to Nov. 10, May 8 to June 29, 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.--43 years, 474 ft^3/s, 27.75 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)
Apr. 17	0100	*2,380	*5.19				

Minimum daily discharge, 60 ft^3/s Feb 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	114	415	650	100	700	720	1390	404	316	428	354
2	136	121	309	500	98	520	547	1170	420	258	332	215
3	368	146	229	400	95	440	453	936	350	255	191	166
4	451	137	211	330	90	370	395	772	298	280	146	160
5	367	162	197	295	83	320	361	709	270	221	128	176
6	203	292	188	250	78	290	432	1170	327	183	115	139
7	147	231	178	240	76	265	760	1540	446	198	104	134
8	121	165	170	270	74	240	720	1580	353	292	110	124
9	109	139	168	250	72	353	622	1090	322	262	115	109
10	104	145	160	235	72	450	495	861	279	207	105	114
11	105	193	155	220	70	538	450	854	229	189	96	140
12	115	518	150	200	70	741	435	799	289	166	95	127
13	106	992	241	190	200	1070	418	828	507	152	85	113
14	97	654	443	180	450	852	392	1120	568	144	83	106
15	91	429	380	175	350	630	493	871	452	143	83	99
16	84	352	352	165	300	550	1520	700	347	375	87	92
17	80	330	273	160	260	500	2230	623	324	302	88	88
18	78	253	400	150	230	460	1710	892	337	203	78	85
19	76	222	358	145	200	420	1440	1460	524	162	72	82
20	75	192	292	140	185	380	1280	1050	411	145	73	80
21	77	182	270	138	170	360	1410	780	314	130	73	76
22	94	176	250	135	350	340	1660	631	253	116	68	73
23	106	177	235	130	800	320	1970	540	221	92	67	72
24	110	163	220	128	1700	305	1910	475	240	100	66	70
25	99	159	210	125	2200	290	1810	424	369	105	75	71
26	99	170	200	122	1800	280	2020	408	333	107	99	74
27	128	151	190	118	1200	270	2150	488	324	148	201	209
28	135	149	300	112	840	260	1720	840	312	135	254	1100
29	129	274	800	105	---	948	1410	601	462	109	153	581
30	145	562	1880	102	---	1310	1340	460	392	131	161	328
31	127	---	1680	101	---	1040	---	398	---	142	526	---
TOTAL	4234	7950	11504	6461	12213	15812	33273	26460	10677	5768	4357	5357
MEAN	137	265	371	208	436	510	1109	854	356	186	141	179
MAX	451	992	1880	650	2200	1310	2230	1580	568	375	526	1100
MIN	72	114	150	101	70	240	361	398	221	92	66	70
CFSM	.59	1.14	1.60	.90	1.88	2.20	4.78	3.68	1.53	.80	.61	.77
IN.	.68	1.27	1.84	1.04	1.96	2.54	5.34	4.24	1.71	.92	.70	.86

CAL YR 1984 TOTAL 193580 MEAN 529 MAX 7020 MIN 36 CFSM 2.28 IN. 31.04
WTR YR 1985 TOTAL 144066 MEAN 395 MAX 2230 MIN 66 CFSM 1.70 IN. 23.10

† 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: Jan. 8 to Feb. 23. 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.--58 years, 2,905 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, 12,100 ft^3/s Apr. 25, gage height, 14.88 ft; minimum daily, 489 ft^3/s Sept. 22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	537	811	2750	6490	1390	3490	5890	6430	1900	1560	2090	2460
2	747	780	2060	4220	1380	3080	4420	5190	1710	1390	2710	1930
3	1510	714	1570	3440	1370	3020	3720	4500	2190	1280	2010	1360
4	1830	704	1470	2590	1360	2540	3330	3790	1300	1080	1600	1190
5	2390	817	1270	2170	1350	2030	2870	3310	1380	1070	1490	2120
6	1690	1760	1280	2240	1340	2020	3180	4270	1250	1150	1210	2380
7	1140	2480	1040	1690	1300	1970	5260	5750	1890	935	1200	1740
8	908	1770	1170	1500	1170	1950	6050	6250	2580	2470	1210	1280
9	1110	1210	1090	1500	1160	1830	5150	4950	1830	2360	1280	1070
10	937	1220	1350	1800	1150	1800	4250	3990	1470	2040	1210	1040
11	853	1050	1390	1750	1150	1780	3740	3530	1470	2000	1220	1210
12	826	1810	1410	1650	1150	1830	3360	3420	1450	2390	907	1320
13	814	4620	1730	1650	1150	2740	3210	3280	2010	1900	893	1260
14	832	4330	2240	1650	1300	3370	2750	3600	2760	1560	890	1060
15	847	2880	2330	1650	1600	3230	2590	3380	3110	1320	801	684
16	665	2400	2010	1600	1500	2890	5410	2740	2320	2730	632	594
17	728	1930	1950	1600	1400	2280	10500	2580	2130	4210	584	1150
18	662	1650	2240	1500	1300	2130	11900	2980	2100	2400	813	1030
19	655	1510	2350	1600	1250	1880	10500	7290	2990	2000	888	763
20	699	1480	2150	1550	1240	2000	7700	6950	3030	1820	654	923
21	703	1320	1730	1530	1240	1910	7040	4820	2120	1530	718	521
22	718	1190	1470	1510	1240	1780	8040	3580	1890	1720	815	489
23	748	1210	1720	1500	1240	1730	9750	2950	1800	1470	649	925
24	899	1170	1900	1500	1910	1870	10700	2640	1500	1250	659	834
25	829	1020	1910	1480	4310	1820	10700	2430	1670	970	654	773
26	747	1140	1580	1460	5930	1840	10100	1930	1720	1060	881	776
27	706	1100	1200	1440	6090	1850	10400	1890	1670	984	1190	956
28	916	1110	1140	1420	4820	2000	10200	3230	1630	1220	1580	2650
29	1020	1380	1810	1400	---	4250	8080	3780	1980	1090	1430	2810
30	1170	2560	6260	1350	---	7690	6620	2760	1690	1020	1160	1820
31	823	---	7970	1400	---	7470	---	2410	---	1570	1560	---
TOTAL	29659	49126	63540	59830	52790	82070	197410	120600	58540	51549	35588	39118
MEAN	957	1638	2050	1930	1885	2647	6580	3890	1951	1663	1148	1304
MAX	2390	4620	7970	6490	6090	7690	11900	7290	3110	4210	2710	2810
MIN	537	704	1040	1350	1150	1730	2590	1890	1250	935	584	489

CAL YR 1984 TOTAL 1058348 MEAN 2892 MAX 27000 MIN 314
WTR YR 1985 TOTAL 839820 MEAN 2301 MAX 11900 MIN 489

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. 20-29, Jan. 5 to Feb. 25. 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.--38 years, 143 ft^3/s, 25.82 in/yr.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges 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)
Apr. 17	1430	*1,380	*8.22	No other peak greater than base discharge.			

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	28	116	329	34	217	303	301	72	40	124	97
2	56	30	91	222	34	161	229	235	74	31	62	53
3	189	42	62	171	34	142	181	187	60	33	32	45
4	177	35	71	130	34	112	151	160	50	40	21	36
5	126	98	66	120	32	99	135	152	44	29	17	30
6	66	266	56	100	32	94	165	250	72	23	13	44
7	48	128	63	92	32	82	327	365	118	31	11	61
8	39	75	55	84	32	75	311	389	70	118	11	42
9	34	59	59	76	32	72	260	226	56	66	22	29
10	31	67	57	68	32	67	195	180	46	50	17	52
11	29	92	58	64	32	69	175	173	38	64	13	70
12	27	280	65	58	32	108	166	155	61	40	14	43
13	25	427	76	54	40	249	161	170	154	30	13	31
14	24	242	108	48	50	231	149	202	230	24	9.8	26
15	23	138	87	44	48	188	181	141	137	23	8.7	23
16	21	113	76	42	44	133	565	121	84	75	14	20
17	20	107	74	42	38	105	1140	121	82	46	15	17
18	19	81	103	40	36	84	748	236	99	29	11	16
19	19	74	87	38	34	78	535	480	147	22	8.4	15
20	21	64	74	38	32	80	469	263	91	18	7.6	14
21	23	60	62	36	30	75	573	174	65	15	8.0	12
22	27	58	62	36	30	67	659	141	50	13	7.6	11
23	38	53	64	36	38	69	880	115	42	12	6.3	10
24	35	55	58	36	110	69	876	100	39	10	5.9	9.8
25	29	51	54	34	480	70	739	87	36	9.2	7.4	9.6
26	29	49	50	34	526	65	724	81	41	8.7	16	11
27	44	49	50	34	433	64	740	121	41	25	83	12
28	43	53	54	34	284	102	504	230	37	22	71	105
29	39	136	180	34	---	354	356	137	47	15	34	63
30	37	177	604	34	---	541	305	96	52	19	30	37
31	32	---	586	34	---	469	---	78	---	24	203	---
TOTAL	1383	3187	3328	2242	2645	4391	12902	5867	2235	1004.9	916.7	1044.4
MEAN	44.6	106	107	72.3	94.5	142	430	189	74.5	32.4	29.6	34.8
MAX	189	427	604	329	526	541	1140	480	230	118	203	105
MIN	13	28	50	34	30	64	135	78	36	8.7	5.9	9.6
CFSM	.59	1.41	1.42	.96	1.26	1.89	5.72	2.51	.99	.43	.39	.46
IN.	.68	1.58	1.65	1.11	1.31	2.17	6.38	2.90	1.11	.50	.45	.52

CAL YR 1984 TOTAL 56967.6 MEAN 156 MAX 2710 MIN 9.0 CFSM 2.07 IN. 28.17
WTR YR 1985 TOTAL 41146.0 MEAN 113 MAX 1140 MIN 5.9 CFSM 1.50 IN. 20.35

01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT.

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

DRAINAGE AREA.--436 mi^2.

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

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

GAGE.--Water-stage recorder. Elevation of gage is 490 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 5-11, 21, 26-29, Jan. 2 to Feb. 24, Mar. 5-7, 17-29. 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, 741 ft^3/s, 23.08 in/yr.

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

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 17	0300	*4,380	*8.50				

Minimum daily discharge, 76 ft^3/s Aug. 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	181	579	1490	270	1170	1400	1370	461	250	645	576
2	327	193	480	1050	270	1190	1140	1200	447	243	455	333
3	912	224	358	960	270	1160	1010	1040	351	220	251	266
4	775	215	344	860	270	771	927	949	323	255	187	239
5	680	557	310	780	270	730	898	926	301	229	164	220
6	397	1360	300	720	270	660	1140	1330	624	185	146	275
7	309	703	290	680	270	620	1950	1810	687	214	148	363
8	244	446	285	620	270	687	1730	1580	466	422	129	260
9	223	354	280	580	270	678	1490	1170	380	370	119	205
10	223	343	280	540	270	620	1160	991	356	280	153	285
11	212	420	320	500	270	610	1120	945	279	369	120	320
12	206	900	410	450	280	1190	1070	853	616	264	132	254
13	198	1460	487	430	320	2930	1060	906	1050	207	138	200
14	190	994	681	410	370	1970	993	940	1020	182	118	179
15	190	605	522	380	410	1410	1160	774	650	186	104	164
16	168	526	447	360	350	997	3000	695	510	1070	152	151
17	167	520	426	350	310	800	3940	690	532	658	136	122
18	168	447	547	330	280	640	2600	1440	824	348	112	150
19	169	353	527	320	270	540	2780	1830	898	240	76	141
20	171	338	446	310	260	490	2230	1180	621	209	104	122
21	169	331	410	300	260	420	2560	904	450	184	83	87
22	193	314	369	290	280	370	2790	755	372	184	98	113
23	236	374	514	285	350	390	3180	662	305	126	83	108
24	245	298	561	280	900	420	3100	551	288	139	80	110
25	175	297	457	280	2680	440	2730	515	292	139	152	159
26	196	306	390	280	2360	450	2700	515	299	128	147	149
27	256	248	350	280	1840	470	2590	810	309	182	489	202
28	246	301	310	280	1380	700	2010	1200	297	191	514	468
29	225	492	1000	275	---	1900	1630	788	290	150	260	381
30	214	823	3170	270	---	2220	1440	601	288	172	208	235
31	202	---	2070	270	---	1830	---	489	---	243	968	---
TOTAL	8433	14923	17920	15210	15870	29473	57528	30409	14586	8239	6671	6837
MEAN	272	497	578	491	567	951	1918	981	486	266	215	228
MAX	912	1460	3170	1490	2680	2930	3940	1830	1050	1070	968	576
MIN	147	181	280	270	260	370	898	489	279	126	76	87
CFSM	.62	1.14	1.33	1.13	1.30	2.18	4.40	2.25	1.11	.61	.49	.52
IN.	.72	1.27	1.53	1.30	1.35	2.51	4.91	2.59	1.24	.70	.57	.58

CAL YR 1984 TOTAL 290362 MEAN 793 MAX 9820 MIN 117 CFSM 1.82 IN. 24.77
WTR YR 1985 TOTAL 226099 MEAN 619 MAX 3940 MIN 76 CFSM 1.42 IN. 19.29

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 mi^2.

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

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

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

REMARKS.--Estimated daily discharges: Dec. 7-13, 23-25, 29, Jan. 5 to Feb. 13, Feb. 18-24. 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.--46 years, 209 ft^3/s, 32.40 in/yr.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Sept. 27	2100	2,580	6.47				

Minimum discharge, 33 ft^3/s Aug. 24, 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	61	245	251	58	164	196	595	160	162	172	56
2	108	69	181	229	60	152	160	439	145	130	83	49
3	189	78	146	148	60	124	138	356	127	116	61	50
4	267	66	140	120	56	91	126	336	114	112	53	46
5	133	74	117	100	56	95	125	338	108	94	49	44
6	98	109	108	90	56	106	315	399	150	85	46	58
7	80	85	100	90	56	95	395	671	172	85	44	64
8	73	71	95	120	54	99	259	499	128	102	49	54
9	79	67	100	110	54	97	214	339	137	102	47	48
10	82	69	96	100	52	90	169	344	114	92	43	59
11	76	77	94	95	50	93	158	558	99	91	42	76
12	71	422	92	90	50	198	146	489	100	78	45	62
13	67	461	150	88	250	262	138	526	114	72	42	55
14	65	239	247	85	633	157	131	440	130	67	40	52
15	62	163	150	78	250	118	173	316	126	65	39	48
16	60	157	133	74	143	99	631	272	106	72	44	46
17	58	156	145	72	105	101	773	285	107	64	40	44
18	57	122	182	70	85	92	366	955	107	58	37	43
19	56	112	144	70	75	85	629	890	114	54	36	41
20	58	97	130	70	72	90	423	457	95	51	38	40
21	57	94	92	68	70	84	457	364	87	49	39	39
22	56	92	107	66	75	80	637	298	80	48	36	38
23	67	90	95	66	150	83	752	252	75	46	35	37
24	72	86	85	65	500	83	658	220	74	45	34	36
25	62	81	78	65	1020	68	620	196	71	44	36	39
26	61	79	76	65	376	76	890	179	86	44	46	39
27	63	80	73	64	249	76	820	222	98	79	103	489
28	61	93	153	62	170	138	534	328	290	54	75	789
29	76	448	400	62	---	414	524	220	343	46	54	293
30	80	476	900	62	---	459	504	176	236	48	49	180
31	67	---	329	58	---	261	---	156	---	49	58	---
TOTAL	2502	4374	5183	2853	4885	4230	12061	12115	3893	2304	1615	3014
MEAN	80.7	146	167	92.0	174	136	402	391	130	74.3	52.1	100
MAX	267	476	900	251	1020	459	890	955	343	162	172	789
MIN	41	61	73	58	50	68	125	156	71	44	34	36
CFSM	.92	1.67	1.91	1.05	1.99	1.55	4.59	4.46	1.48	.85	.59	1.14
IN.	1.06	1.86	2.20	1.21	2.07	1.80	5.12	5.14	1.65	.98	.69	1.28

CAL YR 1984 TOTAL 89228 MEAN 244 MAX 3050 MIN 35 CFSM 2.79 IN. 37.89
WTR YR 1985 TOTAL 59029 MEAN 162 MAX 1020 MIN 34 CFSM 1.85 IN. 25.07

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 mi².

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. 5 to Feb. 6. 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 ft³.

AVERAGE DISCHARGE.--36 years, 4,792 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,100 ft³/s July 1, 1973, gage height, 17.35 ft, from peak-stage indicator; minimum daily, 152 ft³/s Aug. 28, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 23,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 17	1730	*18,600	*7.48				

Minimum daily discharge, 534 ft³/s Aug. 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1740	2830	3990	13200	3600	9140	10100	7870	3190	3350	4790	2260
2	1980	2510	4370	11400	1500	9050	11100	7810	2840	3370	4310	1290
3	4090	2120	4910	8050	1300	6330	7640	7650	3520	3340	3330	2720
4	4110	1620	6530	7280	2700	6790	8860	6790	4090	2000	3040	2990
5	4110	3370	4990	5300	2800	7620	8830	3380	2970	3510	3180	4470
6	2440	5330	4060	4500	2500	7350	8040	6480	4340	2500	3570	4610
7	2080	4330	4240	4300	5910	8350	8510	10000	3900	2220	3110	3560
8	2740	4700	2930	4600	7290	8340	9950	11400	3240	3730	3280	1520
9	3500	4820	2440	5200	6100	8250	10300	9650	2620	4350	2920	2950
10	3680	2530	4110	5800	3380	8270	9960	7390	3230	4460	1750	3090
11	3510	2760	4930	4700	4820	8320	9010	7180	2610	3770	1200	3220
12	2840	5640	4170	3200	5110	8420	8680	5640	4060	3990	2840	2900
13	2290	7660	5150	1450	5050	11700	8800	6660	5290	3040	1510	2790
14	1610	9310	5780	2800	6040	9800	5710	7010	5200	2400	2030	1840
15	2060	9000	4880	3800	5920	9250	6880	6610	5560	3120	2880	1070
16	1600	6380	5100	4300	4330	8860	11600	6490	3200	4210	2100	1840
17	2320	4590	5520	5100	3560	7160	16300	5630	4950	4630	1230	3020
18	2140	3020	6120	4500	3820	5440	14500	6120	5190	4770	594	2540
19	1950	4920	5650	2800	4640	6820	15000	11000	5370	4560	1070	2440
20	1070	5580	5500	1700	4500	6940	12400	11800	5080	1930	1900	2860
21	2370	5090	5050	4200	4360	5970	10100	9330	4790	810	1580	1590
22	2200	3540	3250	5200	4560	5510	10900	8410	3280	3400	1400	624
23	2740	3080	3470	5000	3700	5530	13600	7120	2820	3440	1560	2210
24	2710	2540	3920	4800	4280	4140	14800	6570	3080	2810	1590	2120
25	3020	2250	2810	4000	10600	5100	15500	3490	3320	3090	534	2360
26	2470	3560	4720	2800	10600	5060	15600	1660	3310	2780	1540	3390
27	2660	4060	4750	2400	9490	5490	15800	2110	2750	2590	2520	4920
28	1650	3400	4440	2700	9240	7070	14100	6270	3680	1170	2800	6230
29	2750	3580	4920	3700	---	9240	13000	7500	3150	3070	2300	2980
30	2870	6160	10900	2800	---	9750	9660	6640	2760	3600	2120	2000
31	2740	---	11600	3300	---	9870	---	6360	---	4740	1780	---
TOTAL	80040	130280	155200	144880	141700	234930	335230	218020	113390	100750	70358	82404
MEAN	2582	4343	5006	4674	5061	7578	11170	7033	3780	3250	2270	2747
MAX	4110	9310	11600	13200	10600	11700	16300	11800	5560	4770	4790	6230
MIN	1070	1620	2440	1450	1300	4140	5710	1660	2610	810	534	624

CAL YR 1984 TOTAL 2209971 MEAN 60381 MAX 449000 MIN 6460
WTR YR 1985 TOTAL 1807182 MEAN 4951 MAX 16300 MIN 534

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 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	BARO-METRIC PRES-SURE (MM OF HG)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
02...	0920	1030	50	--	--	11.5	--	--	--	--	--
NOV											
16...	0930	5590	90	--	--	8.0	--	--	--	--	--
28...	0930	3200	101	751	7.3	3.5	1.0	12.5	95	46	64
JAN											
04...	1240	7660	95	--	--	0.5	--	--	--	--	--
FEB											
05...	1135	3000	115	--	--	0.0	--	--	--	--	--
MAR											
15...	0815	9160	110	--	--	1.5	--	--	--	--	--
APR											
03...	0930	4460	80	744	7.3	1.5	1.0	13.5	99	K10	K12
MAY											
01...	0935	8300	60	--	--	8.5	--	--	--	--	--
29...	0930	7660	78	755	7.4	12.0	1.0	10.4	97	110	420
JUN											
17...	0830	2200	110	--	--	14.5	--	--	--	--	--
JUL											
26...	1100	1720	120	--	--	22.0	--	--	--	--	--
AUG											
06...	1015	3930	75	757	7.1	19.0	1.5	8.7	94	26	35
30...	0915	2080	110	--	--	19.0	--	--	--	--	--

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV										
28...	36	36	12	1.4	4.5	21	0.3	0.9	26	9.0
APR										
03...	26	26	8.4	1.2	4.1	25	0.4	0.7	18	8.4
MAY										
29...	29	29	10	0.97	2.7	16	0.2	0.8	23	7.9
AUG										
06...	26	26	8.4	1.2	2.8	18	0.2	0.9	20	7.7

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV										
28...	6.1	<0.1	6.4	68	56	0.30	<0.01	0.01	0.3	0.01
APR										
03...	6.7	0.1	6.5	57	47	0.34	0.11	0.14	1.4	<0.01
MAY										
29...	3.5	<0.1	5.3	56	46	0.20	0.49	0.63	0.4	<0.01
AUG										
06...	3.6	0.1	5.0	50	42	0.24	0.02	0.03	0.2	<0.01

K Results based on colony count outside the acceptance range (non-ideal colony count).
< 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 1984 TO SEPTEMBER 1985

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)
NOV										
28...	--	<0.01	<0.01	--	12	104	64	<1	15	<1
APR										
03...	--	<0.01	<0.01	--	--	--	--	<1	15	<1
MAY										
29...	--	<0.01	<0.01	--	--	--	--	<1	13	<1
AUG										
06...	--	<0.01	<0.01	--	--	--	--	<1	9	<1

DATE	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)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
28...	<1	<3	<1	110	2	29	<0.1	<1	<1	7
APR										
03...	<1	<3	2	70	2	28	<0.1	1	<1	9
MAY										
29...	6	<3	2	41	1	11	<0.1	1	<1	10
AUG										
06...	<1	<3	4	61	1	8	0.1	4	<1	5

< 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. 4-12, 26-29, Jan. 3 to Feb. 24. Records good except for estimated daily discharges, which are poor. 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.--45 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)
Feb. 24	1730	*1,720	*5.55	No other peak greater than base discharge.			

Minimum discharge, 12 ft^3/s Aug. 18.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	44	96	184	50	252	335	175	98	78	132	105
2	175	45	90	180	49	238	278	159	93	68	67	76
3	286	53	74	170	48	218	241	135	83	74	48	65
4	183	45	80	160	47	160	226	119	74	91	39	57
5	130	104	70	150	46	174	237	125	70	66	34	50
6	96	164	64	140	45	185	323	218	94	57	29	196
7	76	106	62	130	44	158	436	421	103	56	26	167
8	66	82	60	115	43	149	388	327	85	61	30	100
9	60	70	70	110	42	154	348	239	116	60	28	73
10	55	73	66	105	41	135	282	197	95	55	25	134
11	53	74	62	100	40	133	254	174	79	52	23	149
12	50	151	72	94	39	392	259	154	109	45	34	108
13	46	164	114	88	94	575	243	153	199	42	27	146
14	44	120	145	84	200	333	226	143	207	38	24	128
15	42	96	101	82	120	255	246	129	144	38	23	106
16	41	82	100	80	96	192	439	121	113	76	30	91
17	39	89	96	78	76	174	515	124	261	53	25	80
18	38	92	115	76	68	155	375	352	232	42	19	72
19	37	92	101	74	66	134	506	416	235	36	19	63
20	43	82	93	72	64	147	428	277	145	33	25	57
21	43	79	75	68	56	144	404	213	124	29	27	52
22	41	75	91	66	70	127	419	172	104	29	22	47
23	45	68	91	62	145	133	410	142	89	28	20	43
24	44	69	88	60	1230	136	351	127	80	24	19	41
25	42	67	77	59	875	134	304	113	83	22	23	57
26	45	66	72	58	455	120	279	103	81	22	42	45
27	50	63	68	56	338	126	267	129	75	32	139	116
28	49	62	66	54	286	248	242	227	74	27	95	399
29	52	89	260	53	---	477	221	155	123	21	64	140
30	54	131	375	52	---	487	198	124	93	25	66	99
31	48	---	237	51	---	403	---	106	---	28	166	---
TOTAL	2102	2597	3231	2911	4773	6848	9680	5769	3561	1408	1390	3062
MEAN	67.8	86.6	104	93.9	170	221	323	186	119	45.4	44.8	102
MAX	286	164	375	184	1230	575	515	421	261	91	166	399
MIN	29	44	60	51	39	120	198	103	70	21	19	41
CFSM	.69	.88	1.06	.95	1.73	2.25	3.28	1.89	1.21	.46	.46	1.04
IN.	.79	.98	1.22	1.10	1.80	2.59	3.66	2.18	1.35	.53	.53	1.16

CAL YR 1984 TOTAL 68500 MEAN 187 MAX 2550 MIN 19 CFSM 1.90 IN. 25.89
WTR YR 1985 TOTAL 47332 MEAN 130 MAX 1230 MIN 19 CFSM 1.32 IN. 17.89

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: Dec. 3-12, 19-21, Jan. 2 to Feb. 22. Records good exept those for estimated daily discharges, which are fair. 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.--27 years, 15.8 ft^3/s, 23.97 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)
Dec. 29	1730	*106	3.36	Feb. 13	1700	ice jam	*4.12

Minimum discharge, 1.6 ft^3/s Aug. 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.1	9.1	35	3.9	18	23	26	13	7.5	12	4.5
2	31	3.9	7.5	25	3.8	18	21	24	11	6.4	4.6	3.8
3	14	3.6	7.3	17	3.8	19	21	23	10	6.3	3.7	3.4
4	9.7	3.2	6.6	16	3.7	28	21	22	9.0	5.7	3.2	3.3
5	7.3	22	6.4	15	3.6	30	22	27	9.6	5.1	2.9	3.0
6	5.5	10	6.2	15	3.6	24	39	29	19	5.0	2.6	29
7	5.0	6.0	6.0	14	3.5	21	34	43	12	7.0	2.7	9.0
8	4.6	4.9	5.8	12	3.4	18	30	30	15	6.1	4.7	5.5
9	4.3	4.5	6.2	11	3.3	16	27	25	14	5.1	3.0	4.7
10	4.0	5.6	6.0	11	3.3	15	27	23	10	5.1	2.5	14
11	3.9	5.1	6.8	11	3.2	15	28	22	8.5	5.6	2.4	6.8
12	3.6	18	7.5	10	3.3	46	28	21	18	4.5	2.4	4.8
13	3.4	11	14	9.4	7.0	27	26	24	20	4.4	2.1	4.3
14	3.4	7.2	13	8.8	11	17	25	21	15	3.9	1.9	4.0
15	3.3	6.9	11	8.4	6.8	15	38	20	12	4.4	2.2	3.6
16	3.3	7.2	8.6	7.8	6.4	19	50	20	12	9.3	3.6	3.4
17	3.0	7.0	9.7	7.5	6.2	17	34	20	20	4.8	2.3	3.3
18	3.0	6.6	9.7	7.2	5.2	16	34	47	16	4.1	1.9	3.1
19	3.0	5.1	7.7	6.7	5.0	21	46	25	12	3.8	1.8	3.0
20	3.3	5.1	7.5	6.2	4.8	15	41	21	10	3.5	3.4	2.9
21	3.1	4.5	7.4	5.8	4.6	19	43	19	17	3.3	2.5	3.0
22	3.3	4.2	12	5.4	4.8	24	47	18	10	3.6	2.1	3.0
23	4.0	5.1	9.3	5.3	23	19	42	17	8.7	3.0	1.9	2.9
24	3.5	4.3	7.8	5.0	66	15	39	16	9.3	2.9	1.8	3.8
25	3.2	4.5	7.0	4.8	47	17	37	15	9.2	2.8	4.2	4.8
26	3.9	4.9	6.7	4.7	19	19	35	15	8.9	3.0	4.9	3.5
27	4.3	5.7	9.3	4.4	18	15	36	21	7.8	3.2	11	33
28	3.8	5.4	13	4.3	22	32	32	18	12	2.7	4.1	20
29	6.2	28	67	4.2	---	40	30	15	12	2.4	2.9	9.7
30	4.1	14	47	4.1	---	31	28	14	8.9	2.6	9.5	7.5
31	3.4	---	39	4.0	---	24	---	13	---	7.8	10	---
TOTAL	164.3	226.6	388.1	306.0	299.2	670	984	694	369.9	144.9	120.8	210.6
MEAN	5.30	7.55	12.5	9.87	10.7	21.6	32.8	22.4	12.3	4.67	3.90	7.02
MAX	31	28	67	35	66	46	50	47	20	9.3	12	33
MIN	2.9	3.1	5.8	4.0	3.2	15	21	13	7.8	2.4	1.8	2.9
CFSM	.59	.84	1.40	1.10	1.20	2.41	3.66	2.50	1.37	.52	.44	.78
IN.	.68	.94	1.61	1.27	1.24	2.78	4.09	2.88	1.54	.60	.50	.88

CAL YR 1984 TOTAL 6986.0 MEAN 19.1 MAX 114 MIN 1.8 CFSM 2.13 IN. 29.04
WTR YR 1985 TOTAL 4578.4 MEAN 12.5 MAX 67 MIN 1.8 CFSM 1.40 IN. 19.03

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 mi².

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: Jan. 8 to Feb. 23. Records good except those for estimated daily discharges and periods of shifting control Oct. 1 to Feb. 26 and July 25 to Sept. 6, 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.--45 years, 194 ft³/s, 20.27 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft³/s June 3, 1947, gage height, 9.65 ft, from rating curve extended above 2,400 ft³/s on basis of slope-area measurement of peak flow; minimum, 1.7 ft³/s Oct. 14, 1949; minimum daily, 2.0 ft³/s Oct. 20, 1949. Maximum discharge since construction of Union Village Reservoir in 1949, 2,350 ft³/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, 1,070 ft³/s Mar. 13, gage height, 6.21 ft; minimum, 14 ft³/s Aug. 23-25; minimum daily, 15 ft³/s Aug. 19, 23, 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	40	124	321	54	243	414	183	99	46	42	34
2	89	38	138	387	53	273	346	172	91	41	30	27
3	119	34	108	335	52	278	334	164	82	37	23	26
4	71	31	71	171	50	165	330	159	74	37	20	25
5	56	75	71	124	49	125	354	166	69	33	18	24
6	46	111	63	147	48	152	386	266	114	32	17	145
7	40	70	54	97	47	228	545	381	103	42	17	96
8	37	56	65	94	46	187	565	292	79	38	21	56
9	33	51	72	88	45	174	449	246	78	34	22	42
10	32	50	72	86	44	138	351	219	75	40	19	63
11	31	53	87	84	43	129	335	198	64	51	18	60
12	31	68	95	82	50	329	364	183	78	39	20	43
13	32	135	118	80	84	866	347	212	118	33	18	36
14	30	181	176	80	120	622	257	181	107	30	17	32
15	27	165	186	79	82	444	283	163	84	29	16	30
16	26	125	141	78	72	295	390	157	74	52	16	27
17	25	105	121	76	64	268	422	159	79	38	16	26
18	24	104	143	74	60	268	320	484	79	29	16	25
19	24	100	151	72	64	259	290	430	77	26	15	23
20	25	75	132	70	56	260	387	317	65	25	16	23
21	25	53	102	69	55	259	375	267	75	25	17	21
22	24	65	85	68	54	250	396	232	63	23	16	21
23	27	59	86	66	74	247	394	196	56	21	15	21
24	29	53	85	64	122	261	330	171	53	20	15	22
25	26	53	106	63	401	261	297	153	50	19	17	28
26	26	66	99	62	443	202	270	141	47	19	28	26
27	30	71	153	60	344	192	251	156	44	20	39	32
28	30	69	66	59	302	333	236	184	45	20	32	265
29	79	70	82	62	---	630	219	146	67	18	22	139
30	62	79	252	58	---	686	200	124	54	18	24	79
31	46	---	320	56	---	534	---	108	---	18	49	---
TOTAL	1222	2305	3624	3312	2978	9558	10437	6610	2243	953	671	1517
MEAN	39.4	76.8	117	107	106	308	348	213	74.8	30.7	21.6	50.6
MAX	119	181	320	387	443	866	565	484	118	52	49	265
MIN	20	31	54	56	43	125	200	108	44	18	15	21
MEAN†	39.5	84.9	128	93.0	108	304	346	213	74.7	30.6	21.7	50.6
CFSM†	.30	.65	.98	.72	.83	2.34	2.66	1.64	.57	.24	.17	.39
IN†	.35	.73	1.14	.82	.86	2.70	2.97	1.89	.64	.27	.19	.43

CAL YR 1984 TOTAL 81805 MEAN 224 MAX 1800 MIN 19 MEAN† 225 CFSM† 1.73 IN† 23.50
WTR YR 1985 TOTAL 45430 MEAN 124 MAX 866 MIN 15 MEAN† 124 CFSM† .95 IN† 12.99

† 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 mi².

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: Dec. 4-13, 26-28, Jan. 2 to Mar. 10, 18-23. Records good except for estimated daily discharges, which are fair and those below 0.5 ft³/s, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--23 years, 7.49 ft³/s, 22.11 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 560 ft³/s Aug. 15, 1976, gage height, 3.80 ft, from rating curve extended above 130 ft³/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 ft³/s Aug. 11, 1964.

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

Date	Time	Discharge (ft³/s)	Gageheight (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 13	1315	ice jam	*3.13	May 18	0800	90	2.47
Mar. 12	1300	*195	2.90	Sept. 27	1815	96	2.50

Minimum discharge, 0.02 ft³/s Aug. 17-20, 24, 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	1.5	3.3	8.6	1.0	7.2	17	5.8	4.1	1.0	1.5	.63
2	9.6	1.5	2.8	7.0	1.0	6.6	15	5.3	4.1	.75	.35	.50
3	3.7	1.4	2.3	6.2	1.0	6.0	14	4.8	2.7	.57	.16	.46
4	1.8	1.3	2.2	5.5	.98	5.5	14	4.7	2.2	.50	.09	.34
5	1.1	5.0	2.0	5.0	.96	5.2	17	6.7	2.0	.39	.07	.26
6	.86	4.6	2.5	4.5	.94	4.8	29	11	4.3	.43	.06	7.7
7	.82	2.7	2.3	4.0	.92	4.5	25	19	3.2	.63	.10	3.1
8	.74	2.3	2.4	3.5	.90	4.3	20	10	2.4	.47	.23	1.3
9	.73	2.1	2.3	3.0	.88	4.2	16	7.6	2.2	.43	.11	.80
10	.66	3.2	2.2	2.8	.86	4.0	14	7.2	1.7	.47	.06	1.7
11	.64	3.3	2.5	2.5	.86	5.4	13	6.5	1.2	.89	.05	1.4
12	.59	14	3.0	2.3	.84	69	11	5.9	2.6	.47	.05	.92
13	.59	7.1	4.0	2.2	30	45	10	6.6	3.4	.43	.04	.88
14	.59	5.0	7.5	2.1	8.0	35	9.2	5.5	2.4	.35	.03	.71
15	.57	3.5	5.1	1.9	2.2	28	10	5.0	1.8	.41	.03	.59
16	.53	3.6	4.0	1.8	1.9	21	11	4.7	1.4	.26	.02	.49
17	.48	3.8	5.7	1.7	1.7	17	9.4	4.8	1.5	.17	.02	.42
18	.47	3.0	6.5	1.9	1.5	15	9.1	42	1.5	.12	.02	.32
19	.47	2.7	5.0	2.1	1.4	13	13	20	1.3	.08	.02	.32
20	.77	3.1	4.7	1.9	1.3	12	9.8	13	1.2	.07	.03	.30
21	.66	2.3	8.4	1.8	1.2	11	8.5	10	1.6	.06	.02	.23
22	.67	2.1	22	1.6	1.4	10	11	8.6	1.0	.07	.02	.23
23	1.1	2.5	7.9	1.5	10	9.8	10	7.5	.80	.04	.02	.23
24	1.1	2.0	5.1	1.4	45	9.6	8.5	6.1	.75	.03	.02	.32
25	1.0	2.0	4.0	1.3	16	10	7.7	5.2	.72	.03	.27	.51
26	1.2	1.9	3.5	1.3	13	13	7.2	5.3	.68	.04	2.5	.39
27	1.3	1.8	3.3	1.2	10	9.1	7.2	6.9	.68	.08	.90	15
28	1.3	1.9	3.0	1.2	8.5	23	6.6	8.5	1.6	.05	.46	7.7
29	6.4	5.5	55	1.4	---	32	6.8	5.8	1.9	.04	.23	2.6
30	2.9	4.5	30	1.1	---	28	6.0	4.7	1.2	.03	.40	1.6
31	2.0	---	20	1.0	---	20	---	4.0	---	.53	1.3	---
TOTAL	45.61	101.2	234.5	85.3	164.24	488.2	366.0	268.7	58.13	9.89	9.18	51.95
MEAN	1.47	3.37	7.56	2.75	5.87	15.7	12.2	8.67	1.94	.32	.30	1.73
MAX	9.6	14	55	8.6	45	69	29	42	4.3	1.0	2.5	15
MIN	.27	1.3	2.0	1.0	.84	4.0	6.0	4.0	.68	.03	.02	.23
CFSM	.32	.73	1.64	.60	1.28	3.41	2.65	1.88	.42	.07	.07	.38
IN.	.37	.82	1.90	.69	1.33	3.95	2.96	2.17	.47	.08	.07	.42

CAL YR 1984 TOTAL 3601.67 MEAN 9.84 MAX 200 MIN .21 CFSM 2.14 IN. 29.05
WTR YR 1985 TOTAL 1882.90 MEAN 5.16 MAX 69 MIN .02 CFSM 1.12 IN. 15.23

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: Oct. 1-29, Dec. 4-11, Dec. 31 to Feb. 13, Mar. 14-17, and July 29 to Sept. 2. 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.--45 years (water years 1940-75, 1977-85), 46.9 ft^3/s, 20.88 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)
Feb. 25	0400	396	5.03	Sept. 27	2200	354	4.83
Mar. 12	2030	*424	*5.18				

Minimum discharge, 2.6 ft^3/s Aug. 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	9.3	21	78	16	85	99	38	24	24	22	18
2	14	9.0	20	76	16	83	89	36	22	21	10	13
3	42	8.8	17	64	16	68	82	35	20	19	7.8	9.3
4	23	8.8	16	58	16	64	85	34	18	19	6.6	8.5
5	19	20	14	42	16	39	91	38	18	17	5.8	7.9
6	17	24	11	35	15	57	156	56	36	15	5.1	78
7	14	17	11	32	15	47	157	99	27	17	4.9	37
8	12	14	11	31	15	53	126	58	22	18	6.3	22
9	11	14	15	30	15	54	111	47	23	16	5.4	17
10	11	13	14	29	14	54	97	42	20	15	4.5	30
11	10	13	17	28	14	51	94	40	17	15	4.2	24
12	9.6	25	20	28	14	187	90	38	34	14	4.7	20
13	9.0	27	27	26	16	200	83	44	45	13	3.8	19
14	8.8	22	38	25	33	140	80	38	38	12	3.4	18
15	8.6	18	27	23	24	110	83	35	29	13	3.1	15
16	8.4	18	25	21	20	92	106	31	23	27	4.0	14
17	8.0	18	27	21	19	86	104	31	46	15	3.5	14
18	7.9	18	33	20	21	74	87	72	36	12	3.2	14
19	7.8	17	30	20	18	70	103	56	34	11	2.9	13
20	8.2	15	28	20	19	73	91	42	28	9.6	5.3	12
21	8.8	14	23	19	17	73	90	38	36	8.6	5.2	12
22	8.4	14	24	19	19	70	101	34	27	8.0	4.7	12
23	8.6	13	29	19	41	67	89	31	23	7.7	4.2	12
24	9.2	13	26	18	147	68	75	31	21	7.2	4.2	16
25	8.2	14	24	18	253	62	67	29	23	6.5	8.3	26
26	7.8	14	20	18	119	62	59	27	22	6.3	15	19
27	8.0	14	18	18	105	56	53	34	21	8.0	25	82
28	8.6	14	23	17	86	101	49	36	24	6.4	12	119
29	13	21	128	17	---	142	46	27	39	5.5	10	59
30	12	28	166	17	---	133	42	24	26	5.2	20	45
31	10	---	94	17	---	106	---	23	---	5.8	36	---
TOTAL	358.1	487.9	997	904	1139	2627	2685	1244	822	397.8	261.1	805.7
MEAN	11.6	16.3	32.2	29.2	40.7	84.7	89.5	40.1	27.4	12.8	8.42	26.9
MAX	42	28	166	78	253	200	157	99	46	27	36	119
MIN	6.2	8.8	11	17	14	39	42	23	17	5.2	2.9	7.9
CFSM	.38	.53	1.06	.96	1.33	2.78	2.93	1.31	.90	.42	.28	.88
IN.	.44	.60	1.22	1.10	1.39	3.20	3.27	1.52	1.00	.49	.32	.98

CAL YR 1984 TOTAL 21616.1 MEAN 59.1 MAX 486 MIN 6.0 CFSM 1.94 IN. 26.36
WTR YR 1985 TOTAL 12728.6 MEAN 34.9 MAX 253 MIN 2.9 CFSM 1.14 IN. 15.52

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. 4-12, Jan. 1 to Feb. 25, Mar. 5, 6. 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.--70 years, 1,186 ft^3/s, 23.34 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)
Feb. 25	0215	ice jam	*12.22	Feb. 25	0615	*10,300	10.30

Minimum discharge, 107 ft^3/s Aug. 24, 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	305	911	2100	375	1700	2300	1110	659	633	271	434
2	375	284	777	1950	350	1710	1950	1040	637	521	327	289
3	1120	291	670	1550	340	1530	1740	981	564	456	217	245
4	695	277	640	1350	330	980	1660	938	499	424	181	223
5	606	365	560	1280	325	740	1710	932	468	375	161	201
6	458	1250	450	1000	320	1250	2640	1410	645	336	148	1250
7	379	760	445	960	315	1050	4120	2580	789	383	140	1570
8	335	568	440	900	310	1140	3090	2080	602	448	159	810
9	309	482	500	810	300	1120	2580	1590	555	380	174	542
10	289	460	490	800	290	1060	2120	1380	519	394	152	519
11	271	518	520	780	290	1060	1960	1250	441	427	139	633
12	259	875	600	750	320	2700	1950	1150	482	377	157	476
13	245	1270	729	700	500	3950	1790	1370	989	313	144	383
14	238	936	1520	660	680	2450	1680	1290	1170	284	129	335
15	231	740	1110	620	480	1960	1700	1110	934	273	121	302
16	224	673	927	580	440	1500	2710	1040	734	522	120	269
17	217	712	900	560	370	1550	3240	1030	811	466	138	245
18	211	615	1470	530	350	1350	2190	1900	866	325	126	240
19	210	563	1200	490	360	1100	2380	2100	891	273	114	216
20	216	486	1050	470	325	1370	2280	1530	728	248	116	205
21	232	470	835	460	320	1330	2270	1300	783	231	124	196
22	221	448	712	450	380	1100	2890	1150	679	214	128	186
23	238	412	964	440	1000	1230	2830	1010	554	190	116	181
24	249	427	781	440	3800	1300	2240	918	510	181	109	181
25	232	414	799	430	7500	1190	1890	829	475	166	121	245
26	228	406	593	425	3210	1030	1720	769	451	162	168	277
27	243	394	518	415	2500	1110	1560	847	445	167	243	366
28	252	393	689	410	1840	1810	1430	1170	442	195	373	2890
29	376	541	3310	400	---	3890	1320	957	846	169	228	1280
30	468	1230	6930	390	---	3610	1210	792	828	157	200	825
31	352	---	2820	385	---	2710	---	707	---	153	442	---
TOTAL	10142	17565	34860	23485	27920	51580	65150	38260	19996	9843	5486	16014
MEAN	327	586	1125	758	997	1664	2172	1234	667	318	177	534
MAX	1120	1270	6930	2100	7500	3950	4120	2580	1170	633	442	2890
MIN	163	277	440	385	290	740	1210	707	441	153	109	181
CFSM	.47	.85	1.63	1.10	1.44	2.41	3.15	1.79	.97	.46	.26	.77
IN.	.55	.95	1.88	1.27	1.51	2.78	3.51	2.06	1.08	.53	.30	.86

CAL YR 1984 TOTAL 493270 MEAN 1348 MAX 16900 MIN 153 CFSM 1.95 IN. 26.59
WTR YR 1985 TOTAL 320301 MEAN 878 MAX 7500 MIN 109 CFSM 1.27 IN. 17.27

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. 5-8, Nov. 14, 15, Jan. 7 to Feb. 25. Records good except for estimated daily discharges Jan. 7-9, Feb. 2-25, which are fair and estimated daily discharges Oct. 5-8, Nov. 14, 15, Dec. 16 to Jan. 6, Jan. 10 to Feb. 1, 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.--71 years (water years 1912-76, 80-85), 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)
Feb. 25	1200	ice jam	*12.74	Apr. 25	1515	*22,300	12.09

Minimum daily discharge, 1,010 ft^3/s Oct. 20, 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1360	2210	7610	1450	2000	10700	12700	11000	3780	4740	4930	1840
2	2600	1870	6150	1400	1200	10700	12900	9910	2950	3710	6040	1460
3	4460	1120	5410	1150	1150	8790	10900	9770	4850	2820	1890	3680
4	4000	1390	5330	8700	2800	6160	9870	8440	5790	2120	3210	1700
5	3000	2690	5290	6100	2200	6870	10700	4270	4690	3450	2880	4300
6	1800	4950	3890	5300	2200	8180	10900	8720	3180	2670	2780	5350
7	1400	5310	3120	4400	4500	9050	14100	13800	4780	2670	2900	6850
8	3000	4320	2780	4000	5300	9360	14400	15000	3160	4070	2350	6450
9	2900	3750	1900	4500	3300	9080	13400	14000	3430	4240	2710	2980
10	2790	2310	2980	4000	2400	10700	12100	11400	2660	4360	1430	2680
11	2470	2310	3890	4200	3800	9580	10100	8740	2160	4060	1950	4440
12	2000	5910	5070	2500	4600	12200	11200	8350	4180	4870	1650	3960
13	1390	5600	6330	2100	6200	17900	11000	8710	5490	2680	1590	3390
14	1050	8000	4270	3500	3500	14400	8990	8550	6620	2650	1900	3740
15	1190	7500	4970	3600	5400	12700	9770	8670	7340	3470	3340	2940
16	2620	6670	5400	3800	3800	11100	12200	8800	5600	4250	1380	1610
17	1810	3170	6400	4000	3000	9060	18900	6890	4600	5100	1150	1540
18	1280	3080	5200	3900	3300	7570	20200	9190	6970	5030	1160	3070
19	1030	3790	6400	2300	3500	7390	20300	15100	6650	4100	1150	3190
20	1010	4100	4000	2400	3300	7750	16500	15000	6790	1210	1170	2740
21	1010	4890	6300	4500	4100	8920	15400	12800	5630	1160	1310	2710
22	2320	3300	3800	6300	4400	7270	14900	11100	3410	3940	1390	3610
23	2330	2800	4200	4500	3000	6100	18000	11100	3050	2450	1180	1850
24	2350	2670	3700	4000	9000	5200	18900	8460	4180	2360	1150	1450
25	2010	2390	2000	3600	19000	6860	19700	4230	3500	2980	1170	2530
26	1690	2230	4100	2600	14300	6600	19600	1740	3320	3900	1920	2570
27	1070	3410	4200	2800	12400	6910	18800	2610	3320	1910	3000	2620
28	1910	2980	6400	3400	11400	9200	18500	7980	2740	1140	2500	6770
29	2560	4420	1150	3300	---	14700	16300	9160	3270	2750	3090	7140
30	1850	6380	1180	2900	---	15900	12700	9060	4280	4110	2270	7930
31	2700	---	1350	3100	---	13800	---	7690	---	5150	2610	---
TOTAL	64960	115520	134770	114300	145050	300700	433930	290240	132370	104120	69150	107090
MEAN	2095	3851	4347	3687	5180	9700	14460	9363	4412	3359	2231	3570
MAX	4460	8000	7610	8700	19000	17900	20300	15100	7340	5150	6040	7930
MIN	1010	1120	1150	1150	1150	5200	8990	1740	2160	1140	1150	1450

CAL YR 1984 TOTAL 2867500 MEAN 7835 MAX 62700 MIN 940
WTR YR 1985 TOTAL 2012200 MEAN 5513 MAX 20300 MIN 1010

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: June 5-9. 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.--62 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, 4,931 ft^3/s Apr. 13, gage height, 3.30 ft; minimum daily, 15 ft^3/s July 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	143	120	234	64	343	519	65	64	59	28	16
2	196	136	125	243	63	334	444	76	65	57	27	16
3	237	127	127	235	62	333	438	87	66	52	26	16
4	229	122	123	211	60	323	397	119	66	48	23	16
5	193	123	118	193	59	349	286	306	64	44	22	16
6	156	132	119	176	60	340	218	247	63	43	22	17
7	137	136	115	161	59	300	254	211	63	41	21	22
8	125	153	113	145	58	255	351	182	63	37	20	28
9	119	167	110	133	57	229	412	137	63	35	20	33
10	128	159	109	121	56	212	428	121	62	35	20	37
11	136	158	108	113	55	200	379	120	50	32	20	36
12	132	176	106	108	55	356	254	122	43	32	18	35
13	130	212	108	104	64	633	479	257	48	32	18	33
14	127	233	119	99	74	784	724	505	49	30	18	32
15	120	234	135	95	95	822	191	580	53	30	18	31
16	162	221	139	92	110	752	133	453	55	29	18	29
17	180	239	142	90	119	649	176	356	55	26	18	28
18	162	256	144	86	128	530	379	227	56	25	18	27
19	192	289	151	83	131	447	376	184	54	26	17	25
20	206	321	152	80	128	345	360	171	53	22	17	24
21	184	356	149	77	121	284	348	162	51	21	17	22
22	165	370	146	76	117	281	351	155	49	20	17	22
23	152	383	141	75	116	274	395	122	49	17	17	21
24	191	390	144	74	127	271	424	118	47	16	16	22
25	202	397	134	74	175	234	386	125	44	15	16	21
26	184	405	126	72	244	196	346	120	42	20	16	23
27	168	223	117	70	320	204	324	108	41	26	16	501
28	155	94	113	68	348	216	304	102	41	23	16	392
29	150	96	114	67	---	267	285	96	48	22	16	163
30	146	104	150	66	---	382	138	90	57	22	16	213
31	148	---	199	65	---	499	---	73	---	24	16	---
TOTAL	5023	6555	4016	3586	3125	11644	10499	5797	1624	961	588	1917
MEAN	162	219	130	116	112	376	350	187	54.1	31.0	19.0	63.9
MAX	237	405	199	243	348	822	724	580	66	59	28	501
MIN	111	94	106	65	55	196	133	65	41	15	16	16

CAL YR 1984 TOTAL 93369 MEAN 255 MAX 3640 MIN 33
WTR YR 1985 TOTAL 55335 MEAN 152 MAX 822 MIN 15

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. 26-28, Jan. 4 to Feb. 17. 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 CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 30	0445	729	5.54	Feb. 25	0445	*788	*5.66

Minimum discharge, 4.9 ft^3/s Aug. 18-20, 23-25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	20	48	111	13	75	93	48	26	25	22	12
2	57	24	43	148	13	70	76	44	24	20	12	10
3	53	22	34	98	14	55	63	41	20	17	9.8	10
4	37	18	33	68	13	46	58	38	16	16	8.3	9.0
5	24	57	28	50	13	48	61	42	15	14	7.9	8.9
6	19	63	26	38	13	45	149	64	21	13	7.5	215
7	16	38	26	30	14	38	204	168	21	32	7.1	135
8	15	27	24	28	14	38	130	117	17	30	7.5	56
9	13	29	23	26	14	38	104	83	16	21	7.1	35
10	13	31	23	24	15	35	81	70	18	38	6.5	45
11	12	33	26	23	15	37	74	63	15	30	6.1	36
12	12	94	27	21	15	140	71	56	30	24	6.3	26
13	11	71	70	20	70	179	67	63	41	20	5.6	20
14	11	48	97	19	53	103	63	56	35	17	5.6	18
15	11	40	57	19	33	74	78	49	29	17	5.4	16
16	11	43	46	18	25	61	120	44	23	25	5.9	15
17	11	39	68	18	22	54	137	43	23	17	5.4	14
18	11	31	82	17	19	47	94	97	22	14	5.1	12
19	10	27	59	16	18	42	111	93	20	12	4.9	11
20	13	22	49	16	16	45	105	71	17	12	5.9	11
21	13	21	37	15	15	41	104	59	18	11	5.7	10
22	13	20	40	15	22	37	125	51	16	9.7	5.5	11
23	15	19	45	14	55	40	116	44	15	9.1	5.0	10
24	13	18	36	14	508	43	94	39	18	8.0	4.9	15
25	12	18	33	13	536	40	81	35	17	7.5	7.2	19
26	14	19	28	13	177	34	79	32	15	7.5	10	15
27	15	20	22	13	118	38	70	37	14	8.1	11	61
28	14	20	23	13	89	113	62	47	18	6.8	8.8	153
29	51	49	284	13	---	203	55	37	54	6.7	7.9	73
30	34	62	524	13	---	168	51	31	35	6.4	9.4	48
31	24	---	169	13	---	113	---	27	---	7.4	18	---
TOTAL	587.8	1043	2130	957	1942	2140	2776	1789	669	502.2	245.3	1129.9
MEAN	19.0	34.8	68.7	30.9	69.4	69.0	92.5	57.7	22.3	16.2	7.91	37.7
MAX	57	94	524	148	536	203	204	168	54	38	22	215
MIN	9.8	18	22	13	13	34	51	27	14	6.4	4.9	8.9
CFSM	.81	1.49	2.94	1.32	2.97	2.95	3.95	2.47	.95	.69	.34	1.61
IN.	.93	1.66	3.39	1.52	3.09	3.40	4.41	2.84	1.06	.80	.39	1.80

WTR YR 1985 TOTAL 15911.2 MEAN 43.6 MAX 536 MIN 4.9 CFSM 1.86 IN. 25.29

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: Oct. 1-8, Jan. 6 to Feb. 13. Records good except estimated daily discharges Jan. 6 to Feb. 13, which are fair and estimated daily discharges Oct. 1-8, 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.--55 years, 397 ft^3/s, 24.39 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft^3/s Sept. 21, 1938, gage height, 17.68 ft, from rating curve extended above 6,200 ft^3/s on basis of computations of flow over dams at gage heights 15.58 ft, 17.68 ft, and 21.5 ft; minimum, 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, 3,590 ft^3/s Dec. 30, gage height, 7.00 ft; minimum, 6.2 ft^3/s Nov. 21; minimum daily, 20 ft^3/s Nov. 19, 20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	22	322	1020	130	561	661	303	153	180	99	21
2	23	22	291	993	125	649	549	288	152	123	120	21
3	23	177	261	763	120	517	491	271	121	83	22	160
4	24	480	223	408	120	301	477	263	109	97	22	21
5	24	154	148	357	120	230	467	258	146	104	22	21
6	440	22	113	340	120	234	537	296	162	103	48	822
7	730	22	113	330	120	238	1310	303	163	103	26	716
8	240	22	114	260	120	271	1300	328	162	83	22	247
9	21	22	132	200	120	436	727	333	162	73	73	162
10	22	22	153	200	120	432	612	421	161	101	22	169
11	22	22	200	220	115	354	630	491	159	155	22	121
12	22	22	228	225	115	1110	620	405	158	186	21	165
13	22	22	221	235	190	1720	515	322	179	174	21	94
14	22	22	428	240	238	949	471	297	218	172	48	71
15	22	21	405	220	208	702	472	265	202	131	21	104
16	22	21	257	190	177	375	577	195	167	67	21	69
17	21	21	210	160	167	337	658	176	154	54	21	62
18	22	21	387	135	139	364	800	185	154	27	21	67
19	22	20	425	150	130	359	775	548	154	51	56	63
20	322	20	304	155	131	457	976	613	118	39	21	83
21	402	179	258	160	151	608	595	352	103	39	21	49
22	44	421	215	155	158	583	608	297	103	134	21	53
23	21	446	225	150	161	426	600	256	103	62	21	73
24	21	445	236	150	531	347	499	199	103	77	21	21
25	21	398	236	145	2350	350	444	189	102	38	22	63
26	21	370	202	145	2100	351	419	225	102	54	90	21
27	21	282	136	140	931	347	390	262	102	22	134	391
28	22	166	169	140	532	613	360	268	117	21	22	611
29	22	135	326	135	---	1400	350	262	144	21	21	637
30	22	229	2450	135	---	1160	313	265	169	21	167	82
31	22	---	2270	130	---	773	---	200	---	22	21	---
TOTAL	2727	4248	11658	8386	9739	17554	18203	9336	4302	2617	1310	5260
MEAN	88.0	142	376	271	348	566	607	301	143	84.4	42.3	175
MAX	730	480	2450	1020	2350	1720	1310	613	218	186	167	822
MIN	21	20	113	130	115	230	313	176	102	21	21	21
MEAN†	103	154	376	263	351	560	573	336	148	80	43	188
CFSM†	.47	.70	1.70	1.19	1.59	2.53	2.59	1.52	.67	.36	.19	.85
IN†	.54	.78	1.96	1.37	1.66	2.92	2.89	1.75	.75	.42	.23	.95

CAL YR 1984 TOTAL 170783.2 MEAN 467 MAX 4160 MIN 6.8 MEAN† 467 CFSM† 2.11 IN† 28.79
WTR YR 1985 TOTAL 95340 MEAN 261 MAX 2450 MIN 20 MEAN† 264 CFSM† 1.19 IN† 16.21

† 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. 7-9, 23-26, Jan. 4, 5, 10-31, Feb. 1-14, 25, 26, Mar. 5-11. 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.--57 years, 405 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)
Feb. 25	1900	ice jam	*6.73	Mar. 12	2100	*2,380	4.57

Minimum daily discharge, 28 ft^3/s Aug. 20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	79	198	584	125	657	794	200	139	192	196	66
2	133	75	177	538	125	579	700	184	128	146	128	63
3	224	70	160	454	125	502	628	178	116	120	86	61
4	209	67	150	350	120	457	591	170	103	104	74	57
5	159	87	136	310	120	420	627	165	94	90	67	57
6	120	126	124	249	120	450	733	188	102	93	60	678
7	97	129	140	229	120	430	951	349	103	97	55	867
8	86	109	120	204	120	400	860	361	98	88	57	434
9	78	96	145	187	115	390	777	282	96	82	59	276
10	74	97	139	180	115	420	636	239	89	74	45	314
11	69	106	146	175	115	430	574	212	80	84	44	301
12	66	252	158	170	115	1310	476	192	88	88	47	263
13	64	367	185	170	300	2050	441	177	104	80	45	237
14	62	273	262	165	750	1560	413	165	107	80	43	213
15	60	217	262	160	661	1270	391	150	97	85	51	192
16	57	179	223	155	535	960	428	142	88	75	66	170
17	57	159	218	155	452	831	453	148	87	69	56	102
18	57	145	286	150	385	692	415	402	111	62	50	93
19	56	137	283	150	312	563	439	582	105	55	45	88
20	57	122	264	145	270	559	445	450	100	56	28	86
21	57	111	222	145	234	576	404	405	105	53	41	84
22	57	113	194	140	212	503	421	344	75	57	39	81
23	67	118	180	140	268	491	524	294	67	48	39	76
24	67	116	160	140	550	514	437	229	64	47	39	73
25	65	114	140	135	1000	507	375	153	66	46	50	73
26	72	111	130	135	1300	424	335	145	72	46	69	70
27	76	106	113	130	891	413	294	157	61	48	68	439
28	78	104	151	130	650	570	273	178	113	40	61	1470
29	85	127	306	130	---	986	249	218	380	35	54	683
30	86	209	1050	130	---	1010	221	210	284	38	52	440
31	83	---	743	125	---	859	---	167	---	50	66	---
TOTAL	2625	4121	7165	6360	10205	21783	15305	7436	3322	2328	1880	8107
MEAN	84.7	137	231	205	364	703	510	240	111	75.1	60.6	270
MAX	224	367	1050	584	1300	2050	951	582	380	192	196	1470
MIN	47	67	113	125	115	390	221	142	61	35	28	57

CAL YR 1984 TOTAL 197503 MEAN 540 MAX 6230 MIN 46
WTR YR 1985 TOTAL 90637 MEAN 248 MAX 2050 MIN 28

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. 23-26, Jan. 9 to Feb. 13, Mar. 6-10. 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.--56 years, 292 ft^3/s, 25.10 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, 2,080 ft^3/s Sept. 6, gage height, 5.98 ft; minimum daily, 25 ft^3/s July 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	110	226	1200	78	412	652	200	128	142	125	94
2	159	100	194	904	80	366	474	181	107	112	89	66
3	260	87	190	735	80	321	430	169	85	85	50	62
4	186	75	176	471	80	221	405	151	67	70	39	59
5	159	89	154	441	80	178	421	135	61	60	37	58
6	112	137	130	309	82	220	575	193	74	65	32	1220
7	100	113	149	281	82	210	856	320	90	63	30	1100
8	93	100	132	240	80	190	1010	295	94	51	39	510
9	76	101	141	210	80	210	649	267	96	55	53	342
10	75	112	127	190	78	200	512	248	90	91	44	296
11	69	120	133	185	78	217	457	219	77	148	38	223
12	64	149	151	169	76	615	436	195	86	140	45	236
13	84	154	164	155	76	1020	401	180	174	112	38	130
14	50	154	313	150	212	1120	376	162	150	92	32	141
15	56	179	266	140	171	1080	363	141	137	79	36	122
16	53	179	229	135	136	484	461	142	109	77	53	110
17	49	178	229	127	123	430	520	133	105	61	55	90
18	52	157	294	123	112	374	455	440	106	57	45	92
19	49	139	289	119	108	293	446	622	91	48	38	89
20	50	123	274	110	105	371	453	453	90	45	36	64
21	49	103	235	105	94	347	421	313	84	39	35	65
22	50	110	193	100	97	256	470	261	81	36	32	62
23	57	98	220	100	141	264	476	213	70	33	29	54
24	56	91	190	100	345	319	402	187	61	32	28	56
25	54	95	160	105	666	329	354	155	57	29	35	117
26	58	95	140	100	685	315	328	137	55	28	65	103
27	65	88	128	96	674	237	284	154	52	29	146	190
28	70	89	136	90	622	341	255	172	61	28	100	931
29	79	175	552	85	---	791	240	166	150	27	71	1210
30	76	309	1150	80	---	1080	221	145	202	25	57	604
31	97	---	1660	80	---	885	---	133	---	31	69	---
TOTAL	2573	3809	8725	7435	5321	13696	13803	6882	2890	1990	1621	8496
MEAN	83.0	127	281	240	190	442	460	222	96.3	64.2	52.3	283
MAX	260	309	1660	1200	685	1120	1010	622	202	148	146	1220
MIN	49	75	127	80	76	178	221	133	52	25	28	54
MEAN†	82.7	128	308	212	196	443	455	221	96.9	63.1	52.3	282
CFSM†	.52	.81	1.95	1.34	1.24	2.80	2.88	1.40	.61	.40	.33	1.78
IN†	.60	.91	2.25	1.55	1.29	3.23	3.21	1.62	.68	.46	.38	1.99

CAL YR 1984 TOTAL 144093 MEAN 396 MAX 3170 MIN 35 MEAN† 396 CFSM† 2.51 IN† 34.12
WTR YR 1985 TOTAL 77241 MEAN 212 MAX 1660 MIN 25 MEAN† 212 CFSM† 1.34 IN† 18.18

† 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: Oct. 1, 2, Dec. 14 to Jan. 10, Jan. 12, 15-18, 21-30, Feb. 2-19, June 30 to July 16, Aug. 16 to Sept. 13. 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.--43 years, 9,415 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, 34,800 ft^3/s Mar. 13, gage height, 16.34 ft; minimum daily, 1,180 ft^3/s Nov. 27.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	2560	8160	18400	3670	14300	17300	12900	6320	5200	6200	1380
2	4000	2050	6890	18900	1700	14600	16100	12000	3630	4800	6390	1380
3	4900	1700	7080	14300	1600	13800	14500	11500	5060	4000	2880	4000
4	5970	1970	5780	11500	3400	10900	13200	10300	5960	1800	2440	3700
5	4230	4170	6250	9600	3300	6350	13600	5770	5930	3700	2810	5000
6	2560	5330	4650	6700	2700	9190	14900	8410	4140	3600	2780	9000
7	2950	6220	4010	6600	4500	9310	19400	13400	4970	3700	3080	11500
8	4520	5770	3130	5300	5000	11500	21300	17700	5350	4500	2930	4600
9	4200	4560	2400	3500	4500	12100	17500	16000	3910	4800	2790	5800
10	3610	3190	5130	4500	2800	12200	16500	14200	2730	4800	1360	4700
11	3150	2950	5940	7160	4500	12200	12600	11800	2260	4800	1840	5300
12	2480	6510	5980	3000	5200	19900	13900	9820	5860	5600	1730	3800
13	1710	10100	7240	3790	6200	29400	13800	9200	5380	5000	1740	3600
14	1370	9580	7000	4930	8000	23600	13200	10300	6010	4700	1850	2440
15	1520	9490	8400	4800	7500	19000	12100	9990	7800	1400	3400	1400
16	2170	8940	7000	4600	5500	16200	13700	10100	7970	1300	2000	2760
17	2620	5490	7200	4800	3800	13600	20400	9730	5600	5750	1380	3150
18	1660	3760	8200	4500	4200	11700	24100	8690	7310	5080	1380	1890
19	1700	4840	8000	2520	4400	10600	22700	17500	6660	4730	1380	2680
20	1350	5420	8800	3570	4850	9380	20600	18500	7100	1380	1380	3250
21	2120	5230	7800	5000	5590	11800	18600	16100	6410	1350	1380	1780
22	5040	4180	4200	5000	6700	11300	17500	13200	3770	4070	1380	1370
23	3550	4140	5200	5200	4450	10800	20900	12100	3400	2520	1380	2660
24	2570	4480	5300	5600	7320	6500	21300	12200	3960	2930	1380	2940
25	1700	4640	4000	4800	20700	8430	22000	7180	4120	2990	1380	2380
26	1890	2400	4400	3600	23900	9510	21700	3050	3820	4050	2900	6100
27	1180	2700	4300	3100	17300	9460	21000	4020	3650	2500	3400	9350
28	2650	4310	4200	3700	16200	10700	21000	7400	3050	1360	2800	12000
29	3420	3950	7000	4000	---	18000	17900	9300	6800	3110	3100	9780
30	2610	5540	21000	3900	---	22800	14700	9890	5000	3720	2200	7650
31	3310	---	20000	3620	---	18300	---	9480	---	4920	2600	---
TOTAL	88510	146170	214640	190490	189480	417430	528000	341730	153930	114160	75640	137340
MEAN	2855	4872	6924	6145	6767	13470	17600	11020	5131	3683	2440	4578
MAX	5970	10100	21000	18900	23900	29400	24100	18500	7970	5750	6390	12000
MIN	1180	1700	2400	2520	1600	6350	12100	3050	2260	1300	1360	1370

CAL YR 1984 TOTAL 4071190 MEAN 10531 MAX 83400 MIN 1180
WTR YR 1985 TOTAL 2597520 MEAN 7116 MAX 29400 MIN 1180

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 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	BARO-METRIC PRES-SURE (MM OF HG)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
27...	0930	3730	115	755	7.3	3.0	0.5	13.5	101	370	54
MAR											
29...	1030	15000	109	750	7.5	5.0	1.0	14.0	111	52	35
MAY											
30...	1100	10800	105	758	7.8	12.0	0.9	11.4	107	280	120
AUG											
07...	1030	3450	108	759	7.4	23.0	0.9	11.0	129	96	270

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV										
27...	40	40	13	1.7	5.0	21	0.4	1.0	32	10
MAR										
29...	39	39	13	1.6	4.6	20	0.3	0.9	29	9.9
MAY										
30...	45	45	15	1.8	2.7	11	0.2	0.7	39	8.4
AUG										
07...	37	37	12	1.6	4.6	21	0.3	1.1	30	8.4

DATE	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV										
27...	7.6	<0.1	4.9	68	63	0.32	<0.01	0.01	1.4	0.02
MAR										
29...	7.4	<0.1	5.9	69	61	0.53	0.27	0.35	1.2	<0.01
MAY										
30...	3.8	<0.1	4.8	65	61	<0.10	0.02	0.03	0.2	<0.01
AUG										
07...	6.6	<0.1	4.5	60	57	0.21	0.02	0.03	0.3	<0.01

< 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 1984 TO SEPTEMBER 1985

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)
NOV										
27...	--	<0.01	<0.01	--	13	131	62	<1	15	<1
MAR										
29...	--	<0.01	0.02	0.06	--	--	--	1	14	<1
MAY										
30...	--	<0.01	<0.01	--	--	--	--	<1	12	<1
AUG										
07...	--	<0.01	<0.01	--	--	--	--	<1	12	<1

DATE	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)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
27...	<1	<3	8	91	10	18	<0.1	2	<1	57
MAR										
29...	<1	<3	11	55	8	29	<0.1	3	<1	15
MAY										
30...	6	<3	3	70	1	15	0.2	1	<1	8
AUG										
07...	<1	<3	3	40	1	5	0.1	4	<1	3

< 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. 6-10, 26-29, Jan. 6 to Feb. 27, Mar. 3-5, 18-19. 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.--39 years, 368 ft^3/s, 27.92 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, 2,910 ft^3/s Jan. 2, gage height, 8.04 ft; minimum discharge, 24 ft^3/s Oct. 1; minimum daily, 24 ft^3/s Oct. 1.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	90	613	1880	85	539	818	136	86	304	63	146
2	40	221	564	2130	75	490	547	126	86	179	60	141
3	48	211	372	1220	80	380	562	521	86	92	64	65
4	51	119	178	515	85	220	466	876	202	74	64	42
5	137	179	110	350	75	180	469	862	276	73	63	43
6	298	386	210	300	85	298	617	124	122	75	63	563
7	291	358	205	270	100	322	1340	122	77	74	62	1230
8	283	183	200	250	95	305	1490	113	77	66	64	916
9	273	207	195	160	100	273	833	554	78	61	65	367
10	159	174	194	130	95	256	442	539	77	61	63	268
11	69	177	193	140	85	256	415	764	76	61	62	311
12	77	245	224	140	80	896	375	634	82	61	62	244
13	134	433	396	140	100	1750	299	544	86	61	61	142
14	131	617	478	160	280	1250	306	361	160	62	61	107
15	71	465	599	170	260	761	214	171	197	62	62	106
16	39	400	336	145	170	480	172	171	195	62	62	68
17	61	341	294	140	130	426	261	171	197	61	62	48
18	112	297	550	115	110	355	378	387	198	61	62	48
19	109	288	523	105	110	230	615	598	196	61	62	48
20	108	205	401	105	110	282	746	585	194	60	62	48
21	107	163	314	105	110	345	739	514	192	59	61	48
22	105	162	261	105	110	341	592	323	138	59	61	48
23	107	174	307	110	140	338	495	246	108	59	61	48
24	121	159	282	125	250	342	491	159	109	58	51	51
25	134	159	287	75	1200	341	324	125	108	57	48	66
26	133	157	270	90	1250	278	208	125	107	57	52	132
27	133	149	250	100	1000	244	208	126	107	56	51	304
28	133	138	230	100	852	380	208	211	114	56	62	835
29	113	237	1000	100	---	1390	186	252	251	52	86	1180
30	46	496	1980	95	---	1800	153	206	313	45	213	1130
31	47	---	2390	95	---	1380	---	119	---	48	176	---
TOTAL	3694	7590	14406	9665	7222	17128	14969	10765	4295	2277	2171	8793
MEAN	119	253	465	312	258	553	499	347	143	73.5	70.0	293
MAX	298	617	2390	2130	1250	1800	1490	876	313	304	213	1230
MIN	24	90	110	75	75	180	153	113	76	45	48	42
MEAN†	103	257	488	277	260	568	591	267	150	58.9	80.2	332
CFSM†	.58	1.44	2.73	1.55	1.45	3.17	3.30	1.49	.84	.33	.45	1.85
IN†	.67	1.60	3.14	1.78	1.51	3.66	3.69	1.72	.94	.38	.52	2.07

CAL YR 1984 TOTAL 173774 MEAN 475 MAX 4570 MIN 24 MEAN† 475 CFSM† 2.65 IN† 36.15
WTR YR 1985 TOTAL 102975 MEAN 282 MAX 2390 MIN 24 MEAN† 286 CFSM† 1.60 IN† 21.67

† 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. 8-11, 23-27, Jan. 6-8, 11-15, 21-26, Feb. 1-22, 25, Mar. 6-18. 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.--61 years, 628 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, 4,190 ft^3/s Jan. 2, gage height, 7.65 ft,; minimum, 58 ft^3/s July 30, 31; minimum daily, 61 ft^3/s July 31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	101	750	3140	150	860	1750	260	145	379	203	184
2	91	204	673	3650	140	784	810	234	138	299	130	162
3	164	248	527	2670	135	623	852	550	128	170	100	145
4	135	225	349	898	135	499	704	918	140	127	90	79
5	124	161	160	707	130	580	731	913	286	116	85	71
6	278	440	313	600	150	450	1120	340	211	110	81	288
7	306	488	292	540	180	360	2130	381	125	170	79	1280
8	301	314	250	500	140	400	2130	299	114	142	80	1060
9	290	257	250	385	140	420	1460	639	111	112	83	595
10	252	244	250	285	140	380	825	653	115	102	83	258
11	141	244	260	300	145	380	707	784	115	103	78	359
12	90	526	283	330	100	1500	679	729	122	100	75	321
13	135	617	448	340	200	3000	551	502	205	99	72	228
14	150	756	663	350	400	3500	547	642	189	99	72	155
15	144	699	778	350	420	1500	535	293	236	105	74	148
16	87	503	573	340	300	720	535	192	237	111	90	137
17	72	486	385	319	300	1100	597	189	322	105	90	95
18	106	400	662	381	180	700	632	600	307	93	80	87
19	132	385	775	315	180	500	865	875	290	85	78	84
20	136	306	565	309	180	476	1090	746	254	82	77	82
21	136	217	486	300	180	578	1020	656	238	79	75	79
22	138	213	354	290	180	527	947	450	212	75	74	78
23	149	203	340	280	383	534	764	341	150	72	72	78
24	157	208	320	250	787	544	694	269	141	71	70	80
25	169	204	300	200	2000	540	600	193	136	68	70	128
26	173	204	300	140	2140	473	333	180	143	69	86	148
27	182	197	290	251	1800	411	348	177	144	76	106	466
28	182	185	434	282	1330	604	337	239	160	79	88	1360
29	183	361	829	259	---	1410	322	330	409	70	84	1770
30	144	636	2070	269	---	2270	275	286	466	62	120	2010
31	109	---	2930	256	---	2520	---	210	---	61	245	---
TOTAL	5023	10232	17859	19486	12645	29143	24890	14070	5989	3491	2890	12015
MEAN	162	341	576	629	452	940	830	454	200	113	93.2	401
MAX	306	756	2930	3650	2140	3500	2130	918	466	379	245	2010
MIN	72	101	160	140	100	360	275	177	111	61	70	71

CAL YR 1984 TOTAL 278292 MEAN 760 MAX 7500 MIN 70
WTR YR 1985 TOTAL 157733 MEAN 432 MAX 3650 MIN 61

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: Mar. 13-18. Records good except for periods of estimated record, 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.--40 years, 174 ft³/s, 23.40 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, 804 ft³/s Mar. 14, gage height, 8.00 ft; minimum daily, 9.6 ft³/s Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	33	69	240	40	338	430	93	71	104	40	15
2	68	33	71	406	40	296	357	85	63	100	67	15
3	101	30	71	480	40	258	292	82	57	86	69	15
4	105	28	72	445	40	197	249	80	51	74	61	15
5	96	33	50	182	31	103	200	77	45	60	51	15
6	85	46	41	99	27	123	221	80	43	48	41	34
7	78	49	41	128	27	178	301	122	39	48	33	178
8	72	50	41	136	27	189	335	173	38	51	30	320
9	66	51	41	135	27	169	327	175	37	53	27	322
10	59	49	41	133	27	139	293	163	36	50	23	261
11	57	48	42	108	27	130	258	144	32	44	20	204
12	54	73	42	69	44	226	227	128	30	39	17	157
13	50	108	42	54	107	495	200	118	29	34	15	120
14	46	110	42	54	167	746	182	106	27	31	14	93
15	42	98	42	55	259	798	173	93	24	32	13	75
16	40	88	63	55	195	608	171	83	22	43	16	61
17	40	81	74	55	151	513	168	78	26	67	15	50
18	43	75	82	55	151	495	164	127	29	73	13	42
19	47	71	102	55	149	466	167	228	32	62	12	36
20	44	63	117	55	116	314	168	234	30	49	12	31
21	39	58	124	55	48	251	166	209	31	38	11	28
22	36	56	123	55	30	247	162	180	28	31	10	41
23	40	52	124	54	100	171	162	152	27	25	9.8	61
24	40	51	143	54	135	154	159	124	27	21	9.6	73
25	38	49	157	54	160	190	153	106	25	18	9.8	79
26	39	47	141	54	310	199	143	89	22	17	12	77
27	39	45	112	54	436	196	131	78	21	20	15	42
28	38	44	84	45	453	172	120	79	27	18	16	163
29	39	47	76	41	---	165	111	85	51	16	15	265
30	38	60	132	40	---	224	102	77	87	15	13	212
31	36	---	214	40	---	356	---	74	---	15	14	---
TOTAL	1646	1726	2616	3545	3364	9106	6292	3722	1107	1382	724.2	3100
MEAN	53.1	57.5	84.4	114	120	294	210	120	36.9	44.6	23.4	103
MAX	105	110	214	480	453	798	430	234	87	104	69	322
MIN	31	28	41	40	27	103	102	74	21	15	9.6	15
MEAN†	53.5	58.5	105	99.9	126	296	197	119	37.8	41.5	23.0	111
CFSM†	.53	.58	1.04	.99	1.25	2.93	1.95	1.18	.37	.41	.23	1.10
IN†	.61	.65	1.20	1.14	1.30	3.38	2.17	1.36	.42	.47	.26	1.22

CAL YR 1984 TOTAL 81746.5 MEAN 223 MAX 1040 MIN 7.3 MEAN† 224 CFSM† 2.22 IN† 30.21
WTR YR 1985 TOTAL 38330.2 MEAN 105 MAX 798 MIN 9.6 MEAN† 104 CFSM† 1.03 IN† 14.19

† 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.--Estimated daily discharges: Jan. 25 to Feb. 13, Mar. 14, 15. Records good except for estimated daily discharges, which are fair. 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.--27 years, 79.1 ft^3/s, 22.76 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, 421 ft^3/s Mar. 14, gage height, 7.95 ft; minimum, 2.9 ft^3/s Aug. 15, 25; minimum daily, 3.3 ft^3/s Aug. 23, 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	12	37	91	24	135	100	39	29	24	26	9.9
2	32	11	33	95	24	140	50	36	27	18	24	8.8
3	51	10	30	97	24	97	50	37	24	15	15	7.4
4	39	9.4	30	80	24	77	76	42	21	13	11	6.6
5	30	15	26	73	24	77	87	41	19	11	9.1	5.8
6	22	29	20	73	24	77	206	43	19	9.7	7.6	68
7	18	25	23	65	18	77	249	73	20	9.8	6.3	121
8	16	21	26	61	18	77	215	73	19	9.1	6.6	78
9	14	18	26	61	16	77	135	61	17	8.2	7.4	54
10	13	19	26	61	16	66	115	55	21	7.3	6.5	56
11	12	22	26	38	16	62	120	49	18	6.5	5.6	44
12	12	87	26	31	16	120	113	42	14	6.4	4.8	32
13	9.5	85	31	33	18	246	106	38	9.4	6.9	3.9	24
14	8.7	58	38	33	47	378	103	34	11	6.7	3.4	20
15	8.0	43	51	33	81	397	117	30	9.6	9.9	4.0	17
16	7.5	36	60	33	94	255	114	27	9.5	22	9.9	14
17	6.9	33	41	33	94	191	87	26	15	27	9.1	12
18	6.2	30	42	33	95	188	58	58	21	18	6.7	11
19	5.9	27	48	33	91	138	35	99	21	13	5.5	10
20	6.6	23	48	33	63	108	37	73	16	11	4.8	9.0
21	6.9	21	49	33	50	108	38	56	13	9.3	4.2	8.8
22	6.8	21	49	33	49	108	39	47	9.9	8.6	3.8	7.8
23	9.6	20	57	33	49	194	49	39	9.2	7.5	3.3	7.0
24	12	20	63	33	65	168	61	34	8.7	5.9	3.3	6.8
25	12	20	63	25	123	52	60	29	6.4	4.7	5.6	7.6
26	13	19	62	23	188	39	56	25	6.1	5.8	12	7.6
27	15	17	62	24	203	29	50	23	6.7	9.3	14	7.2
28	14	17	41	24	141	21	47	29	24	9.0	10	85
29	15	23	31	24	---	29	44	48	41	7.2	7.8	68
30	14	40	58	24	---	211	42	42	32	6.1	6.9	47
31	13	---	85	24	---	253	---	33	---	6.2	8.7	---
TOTAL	459.5	831.4	1308	1390	1695	4195	2659	1381	517.5	332.1	256.8	861.3
MEAN	14.8	27.7	42.2	44.8	60.5	135	88.6	44.5	17.2	10.7	8.28	28.7
MAX	51	87	85	97	203	397	249	99	41	27	26	121
MIN	5.9	9.4	20	23	16	21	35	23	6.1	4.7	3.3	5.8
MEAN†	15.0	28.0	45.7	41	64.1	136	84.6	44.5	17.4	10.5	8.14	28.2
CFSM†	.32	.59	.97	.87	1.36	2.88	1.79	.94	.37	.22	.17	.60
IN†	.37	.66	1.12	1.00	1.42	3.33	2.00	1.09	.41	.26	.20	.67

CAL YR 1984 TOTAL 39296.2 MEAN 107 MAX 616 MIN 3.5 MEAN† 108 CFSM† 2.29 IN.† 31.02
WTR YR 1985 TOTAL 15886.6 MEAN 43.5 MAX 397 MIN 3.3 MEAN† 43.5 CFSM† .92 IN.† 12.51

† Adjusted for change in contents on Otter Brook Lake.

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 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 201.32 ft 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: Oct. 10 to Nov. 2, Dec. 7, 8, 22-31, Jan. 1, 6-31, Feb. 1-23, Mar. 5, 6, 9-11, May 27 to June 3, 12-14. 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.--75 years, 672 ft^3/s.

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

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,230 ft^3/s Mar. 13, gage height, 6.62 ft; minimum 58 ft^3/s Aug. 24; minimum daily, 63 ft^3/s Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	170	217	755	140	995	977	292	190	250	95	100
2	116	165	210	915	140	859	860	268	180	240	142	98
3	262	158	202	1140	135	788	774	263	175	211	151	92
4	286	156	207	1000	135	634	734	283	155	180	137	88
5	235	159	204	894	130	457	763	281	154	152	121	82
6	207	227	196	518	130	524	769	277	151	135	107	89
7	172	255	186	450	130	496	969	343	135	123	98	245
8	151	228	180	430	125	534	1000	423	143	112	95	419
9	143	203	177	390	125	554	919	430	136	105	92	484
10	138	197	170	360	125	549	804	390	128	102	87	483
11	135	201	173	340	120	526	722	357	120	100	84	429
12	132	336	183	320	250	1430	670	321	118	97	83	344
13	130	515	200	300	450	3030	601	290	118	94	78	270
14	130	444	233	280	900	2820	562	268	118	91	75	212
15	128	363	266	260	750	2530	555	241	118	90	70	176
16	125	314	275	250	600	2190	547	218	112	107	82	151
17	120	285	290	240	520	1710	517	204	115	133	95	133
18	120	258	312	230	450	1470	460	446	138	190	92	120
19	120	234	352	220	420	1310	435	754	158	181	87	110
20	120	214	373	210	390	1170	429	666	163	149	84	100
21	120	197	373	200	360	942	418	552	155	126	78	103
22	125	185	427	190	330	847	413	463	136	111	72	123
23	140	176	508	180	308	812	429	395	123	97	67	97
24	130	170	472	175	475	802	421	341	114	85	63	113
25	140	173	450	170	793	678	406	283	110	77	73	117
26	150	173	320	165	1000	603	395	244	104	75	105	119
27	160	161	405	160	1150	577	372	210	98	83	133	146
28	180	151	497	155	1130	558	347	220	96	90	122	281
29	170	156	351	150	---	561	331	230	128	83	106	515
30	180	191	426	145	---	617	313	220	229	77	94	448
31	175	---	625	145	---	854	---	200	---	73	96	---
TOTAL	4721	6815	9460	11337	11711	32427	17912	10373	4118	3819	2964	6287
MEAN	152	227	305	366	418	1046	597	335	137	123	95.6	210
MAX	286	515	625	1140	1150	3030	1000	754	229	250	151	515
MIN	81	151	170	145	120	457	313	200	96	73	63	82

CAL YR 1984 TOTAL 342636 MEAN 936 MAX 9600 MIN 72
WTR YR 1985 TOTAL 121944 MEAN 334 MAX 3030 MIN 63

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 1984 TO SEPTEMBER 1985

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, 1984	2568.9	2484.8	5948.5	1.5	955.2	66.4
Oct. 31	2299.4	2419.3	5754.4	1.6	654.3	106.4
Nov. 30	2324.6	2639.4	5963.4	22.6	548.2	139.0
Dec. 31	2178.7	2624.6	6140.2	52.4	625.9	138.0
Jan. 31, 1985	1664.2	2131.8	4821.0	15.4	589.6	119.0
Feb. 28	1316.8	1979.4	4188.8	18.6	726.6	127.0
Mar. 31	1043.8	1761.8	2078.3	7.7	922.0	109.1
Apr. 30	3962.7	2976.4	5111.3	2.9	1051.0	21.2
May 31	3531.9	3740.1	5793.7	1.9	1109.3	114.0
June 30	3447.8	3971.1	6227.0	1.7	1074.4	127.0
July 31	3377.0	3877.7	5411.1	1.4	1031.2	114.0
Aug. 31	3071.1	3159.6	6665.6	1.5	982.6	117.0
Sept. 30	2532.8	3382.6	6665.8	1.7	1023.0	151.0

Date	Sunapee Lake	North Springfield Lake	Ball Mountain Reservoir	Townshend Reservoir	Surry Mountain Lake	Otter Brook Lake
Sept. 30, 1984	381	24.0	13.0	35.8	59.8	36.8
Oct. 31	348	23.3	52.4	35.5	61.0	37.2
Nov. 30	323	26.9	62.1	42.2	63.4	37.9
Dec. 31	362	97.9	123.3	218.3	118.2	47.4
Jan. 31, 1985	340	23.3	29.0	35.8	79.5	36.5
Feb. 28	398	37.8	34.4	41.8	92.8	45.2
Mar. 31	449	40.7	75.4	70.0	99.7	48.1
Apr. 30	566	26.9	315.0	38.0	65.7	37.6
May 31	650	25.4	98.8	36.6	63.4	37.6
June 30	636	26.9	116.5	39.4	65.7	37.9
July 31	564	24.0	77.5	37.2	57.4	37.2
Aug. 31	527	24.0	104.7	37.6	56.3	36.8
Sept. 30	507	20.8	206.4	126.0	75.6	38.2

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. 4-9, 22-26, Jan. 5, 7, Jan. 9 to Feb. 12, Mar. 5-10, Apr. 31 to June 11, June 27 to July 28. 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.--53 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)
Sept. 27	1600	*1,600	*5.00				

Minimum daily discharge, 38 ft^3/s Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	122	253	347	85	252	364	140	120	230	202	85
2	243	122	214	453	84	238	320	135	115	140	94	67
3	182	116	196	330	84	212	273	130	110	125	71	62
4	188	103	180	258	82	161	254	140	100	115	63	56
5	121	263	170	220	82	170	305	150	98	105	56	51
6	94	291	160	198	80	180	645	170	92	100	52	127
7	85	186	150	180	80	150	586	250	88	115	54	192
8	80	149	140	178	80	155	424	200	84	105	103	106
9	80	136	135	165	80	170	349	160	94	100	75	107
10	77	200	145	155	80	180	287	150	86	95	60	158
11	75	201	170	150	80	209	262	140	80	90	54	115
12	73	741	177	145	150	894	242	140	136	85	51	87
13	71	504	224	145	472	760	239	130	182	130	47	74
14	71	355	295	135	283	486	255	130	154	180	44	68
15	69	283	224	130	184	373	276	125	112	250	47	64
16	66	299	195	125	145	300	340	120	132	300	80	60
17	66	280	219	120	126	278	336	180	419	230	65	58
18	71	233	252	115	116	251	271	350	324	150	52	55
19	73	209	225	110	108	214	286	450	245	100	47	52
20	85	182	217	110	103	222	267	350	176	85	45	51
21	77	164	187	108	98	218	249	230	224	75	44	53
22	96	153	170	105	114	194	250	200	151	65	42	50
23	141	145	160	100	178	193	240	170	121	60	41	47
24	110	144	150	98	373	198	208	150	109	56	38	48
25	92	139	140	96	664	196	192	135	98	54	76	78
26	121	131	130	94	451	176	180	130	95	200	134	65
27	121	130	126	92	361	167	168	120	90	580	90	413
28	103	145	153	90	283	348	160	130	200	200	66	604
29	239	368	424	88	---	697	156	150	450	80	68	240
30	181	339	750	86	---	600	144	140	400	61	68	147
31	140	---	409	86	---	461	---	130	---	70	103	---
TOTAL	3351	6833	6740	4812	5106	9303	8528	5425	4885	4331	2132	3440
MEAN	108	228	217	155	182	300	284	175	163	140	68.8	115
MAX	243	741	750	453	664	894	645	450	450	580	202	604
MIN	60	103	126	86	80	150	144	120	80	54	38	47

CAL YR 1984 TOTAL 103096 MEAN 282 MAX 2890 MIN 56
WTR YR 1985 TOTAL 64886 MEAN 178 MAX 894 MIN 38

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: Jan. 7 to Feb. 13 and July 7-24. Records good 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.--57 years, 254 ft^3/s, 18.52 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. 13	0315	*2,350	*10.78				

Minimum daily discharge, 8.5 ft^3/s Sept. 21, 26.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	67	144	564	90	513	321	106	100	49	25	9.0
2	60	68	169	920	58	486	318	117	71	41	22	9.0
3	99	53	139	744	66	426	327	108	78	39	11	21
4	86	63	169	572	43	327	352	90	71	38	11	20
5	95	139	190	507	56	318	433	106	43	33	19	9.1
6	61	254	264	415	72	345	606	122	86	18	23	324
7	54	191	249	350	46	305	708	299	75	88	18	502
8	44	228	229	320	38	319	514	331	72	69	19	218
9	52	207	248	300	43	331	449	289	45	58	9.8	171
10	51	197	191	260	44	339	388	271	54	46	9.6	159
11	48	218	144	170	47	333	350	215	60	44	9.6	230
12	45	394	189	220	40	1020	320	131	75	72	9.6	217
13	40	518	280	145	150	1760	293	181	81	11	22	128
14	29	423	486	130	666	1100	274	179	100	40	22	70
15	50	359	356	150	599	890	264	147	79	56	9.6	66
16	11	345	314	120	531	705	258	143	72	40	22	58
17	61	294	446	62	438	639	254	122	88	50	9.6	55
18	19	247	557	125	242	530	234	173	64	36	9.6	39
19	52	227	484	130	177	432	254	249	87	48	22	44
20	35	183	445	140	190	446	258	197	47	10	31	49
21	30	183	400	90	180	434	232	189	60	10	9.6	8.5
22	35	152	419	110	206	375	231	160	62	34	9.6	17
23	33	150	487	160	326	366	215	126	38	23	22	66
24	36	154	411	220	1240	366	206	149	53	25	9.6	8.7
25	34	147	385	240	1930	341	187	108	46	24	9.3	52
26	47	124	291	210	1070	312	157	103	49	24	9.0	8.5
27	29	132	180	220	791	312	152	111	48	11	9.0	55
28	37	125	187	160	570	333	134	118	44	11	28	317
29	78	140	425	76	---	426	134	121	59	23	9.0	100
30	89	149	779	72	---	377	127	111	41	25	31	73
31	75	---	531	50	---	322	---	76	---	24	9.0	---
TOTAL	1526	6131	10188	7952	9949	15528	8950	4948	1948	1120	489.5	3103.8
MEAN	49.2	204	329	257	355	501	298	160	64.9	36.1	15.8	103
MAX	99	518	779	920	1930	1760	708	331	100	88	31	502
MIN	11	53	139	50	38	305	127	76	38	10	9.0	8.5
CFSM	.26	1.09	1.76	1.37	1.90	2.68	1.59	.86	.35	.19	.08	.55
IN.	.30	1.22	2.03	1.58	1.98	3.09	1.78	.98	.39	.22	.10	.62

CAL YR 1984 TOTAL 132674 MEAN 362 MAX 4010 MIN 11 CFSM 1.94 IN. 26.39
WTR YR 1985 TOTAL 71833.3 MEAN 197 MAX 1930 MIN 8.5 CFSM 1.05 IN. 14.29

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: Oct. 1, 2, 6, 30, 31, Nov. 1-4, 7-9, 13-15, 17-28, 30, Dec. 1-Feb. 24, Mar. 5-20. Records good except for estimated daily discharges, which are fair. Several observations of water temperature and specific conductance were made during the year.

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. 12	--	*800	--	No other peak greater than base discharge.			

Minimum discharge, 7.8 ft^3/s on July 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	30	92	250	60	178	173	85	54	26	62	14
2	40	30	88	320	58	166	166	81	50	24	23	14
3	49	29	88	250	58	149	159	76	48	23	17	14
4	67	29	90	205	58	131	160	75	45	22	15	13
5	52	62	90	182	58	120	189	72	42	20	14	12
6	41	69	88	166	58	130	281	100	40	20	13	78
7	37	53	85	150	58	120	273	138	38	20	12	64
8	36	49	83	136	58	110	234	114	40	19	13	38
9	33	48	88	125	58	120	208	103	43	18	12	27
10	28	50	90	110	58	130	184	95	36	20	11	29
11	28	52	92	105	58	140	170	89	33	19	11	26
12	27	215	110	100	58	640	157	84	60	16	11	23
13	27	142	162	98	340	500	146	81	80	19	9.7	21
14	27	130	199	96	200	400	140	73	75	17	9.6	20
15	27	117	178	94	130	270	135	70	50	17	22	19
16	26	145	157	90	105	220	135	67	60	23	58	18
17	26	135	165	88	90	200	133	100	130	17	21	18
18	26	120	167	86	85	180	130	140	100	15	17	18
19	26	110	132	84	80	160	146	200	60	13	15	16
20	26	97	125	80	74	165	132	120	31	12	14	17
21	25	92	120	78	70	173	130	100	34	11	12	15
22	25	83	115	76	80	156	132	80	28	11	12	15
23	26	81	110	74	90	152	128	70	26	10	11	13
24	27	81	105	72	200	149	120	65	26	10	11	15
25	26	78	100	70	429	140	115	60	25	10	14	18
26	27	76	95	68	274	131	109	56	26	10	20	17
27	30	72	90	66	238	130	102	54	25	12	21	47
28	27	76	110	64	182	160	98	60	29	11	16	115
29	40	81	250	62	---	216	93	66	35	10	14	59
30	37	92	500	62	---	199	88	62	30	9.7	13	44
31	31	---	280	60	---	176	---	58	---	12	15	---
TOTAL	995	2524	4244	3567	3365	6011	4566	2694	1399	496.7	539.3	857
MEAN	32.1	84.1	137	115	120	194	152	86.9	46.6	16.0	17.4	28.6
MAX	67	215	500	320	429	640	281	200	130	26	62	115
MIN	25	29	83	60	58	110	88	54	25	9.7	9.6	12
CFSM	.46	1.19	1.94	1.63	1.70	2.75	2.16	1.23	.66	.23	.25	.41
IN.	.53	1.33	2.24	1.88	1.78	3.17	2.41	1.42	.74	.26	.28	.45

WTR YR 1985 TOTAL 31258.0 MEAN 85.6 MAX 640 MIN 9.6 CFSM 1.21 IN. 16.49

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: Oct. 1 to Feb. 12, Feb. 23 to Mar. 6, Apr. 16-24, Aug. 28 to Sept. 3. Records 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.--57 years, 551 ft^3/s, 24.37 in/yr.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges 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. 12	2145	*2,160	*5.81				

Minimum daily discharge, 45 ft^3/s Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	280	620	800	215	680	848	376	253	226	187	105
2	600	285	500	1000	210	640	733	353	219	193	217	98
3	410	265	450	780	205	580	680	340	251	164	135	94
4	430	240	420	600	205	510	644	307	252	135	102	96
5	270	620	390	520	205	480	739	311	230	132	83	104
6	215	660	370	460	205	460	1390	510	311	117	102	1640
7	195	480	340	420	200	535	1680	1000	336	193	125	1260
8	185	360	320	380	200	561	1220	687	239	151	113	597
9	180	320	310	370	200	582	948	527	206	121	171	333
10	175	450	300	360	200	515	777	458	232	192	122	364
11	170	460	390	350	200	553	701	398	214	257	67	295
12	165	1700	410	340	200	1370	662	363	264	150	76	224
13	165	1100	520	330	646	2030	620	411	428	133	60	181
14	160	860	570	320	684	1440	590	368	440	128	97	154
15	155	660	540	305	506	1050	580	335	369	128	100	143
16	150	690	450	290	439	768	930	312	302	193	92	150
17	150	640	510	275	330	708	890	313	293	125	119	123
18	165	540	590	270	351	641	740	941	285	110	87	125
19	170	480	520	265	354	549	800	1250	277	93	67	106
20	195	430	500	260	342	602	730	764	208	87	112	107
21	180	390	440	250	329	602	690	593	239	85	61	101
22	230	360	400	240	342	518	680	501	171	77	54	82
23	320	335	380	235	580	512	660	426	124	71	99	96
24	250	325	350	230	1000	553	620	377	157	68	45	91
25	215	320	330	225	1800	547	573	325	177	68	58	119
26	270	305	310	220	1150	463	531	299	159	67	84	201
27	280	300	290	210	900	465	488	318	156	69	138	406
28	240	310	350	215	760	854	453	493	154	70	190	1380
29	550	820	970	215	---	1560	422	423	254	81	150	811
30	410	770	1700	215	---	1500	390	359	288	65	130	469
31	320	---	930	215	---	1080	---	313	---	78	120	---
TOTAL	7720	15755	15470	11165	12958	23908	22409	14751	7488	3827	3363	10055
MEAN	249	525	499	360	463	771	747	476	250	123	108	335
MAX	600	1700	1700	1000	1800	2030	1680	1250	440	257	217	1640
MIN	150	240	290	210	200	460	390	299	124	65	45	82
CFSM	.81	1.71	1.63	1.17	1.51	2.51	2.43	1.55	.81	.40	.35	1.09
IN.	.94	1.91	1.87	1.35	1.57	2.90	2.72	1.79	.91	.46	.41	1.22

CAL YR 1984 TOTAL 227565 MEAN 622 MAX 7050 MIN 109 CFSM 2.03 IN. 27.57
WTR YR 1985 TOTAL 148869 MEAN 408 MAX 2030 MIN 45 CFSM 1.33 IN. 18.04

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 mi².

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. 3-9, Jan. 9 to Feb. 12. Records good except for estimated daily discharges, which are fair. Some regulation by Chittenden Reservoir, usable capacity, 819,800,000 ft³ on East Creek. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--69 years (water years 1904-06, 1911-19, 1929-85), 989 ft³/s, 21.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s Mar. 20, 21, 1936, gage height, 10.3 ft; minimum daily, 92 ft³/s Aug. 9, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 13,600 ft³/s Nov. 4, 1927, gage height, 13.3 ft, present datum, at site 1,800 ft upstream, from rating curve extended above 9,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,680 ft³/s Mar. 1, gage height, 4.53 ft; minimum daily, 145 ft³/s Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	338	496	1180	2060	390	2420	1910	672	613	657	202	220
2	466	458	1080	2230	380	2580	1820	632	546	531	209	204
3	836	351	800	2240	380	2370	1670	611	402	464	229	199
4	931	309	790	2220	370	2060	1510	627	418	395	240	201
5	768	496	700	2110	370	1470	1410	576	461	327	204	217
6	682	992	660	1820	360	1040	1650	692	562	315	178	691
7	531	955	620	1610	360	1120	1970	1170	630	339	170	1590
8	435	774	600	1450	360	1020	2050	1490	593	391	184	1660
9	417	652	560	1400	360	1050	2100	1370	532	406	206	1480
10	369	571	617	1350	350	1040	2090	1110	475	332	253	1070
11	338	525	757	1250	350	1060	1970	927	406	337	236	733
12	324	836	876	1000	350	1660	1790	795	481	435	206	635
13	323	1360	1160	780	627	2220	1570	1010	772	385	188	490
14	310	1430	1420	620	1060	2350	1320	1030	1170	302	182	378
15	292	1230	1450	600	1090	2400	1170	899	1020	281	191	307
16	281	1080	1290	580	904	2380	1230	760	787	358	170	286
17	280	1010	1150	540	740	2320	1390	733	750	374	161	299
18	311	926	1270	520	596	2130	1410	759	766	320	165	279
19	285	828	1350	510	536	1890	1380	1340	830	275	171	253
20	288	696	1230	500	548	1590	1350	1590	689	257	180	252
21	296	666	1090	490	554	1360	1340	1490	555	227	178	253
22	288	600	973	480	578	1180	1340	1180	512	210	161	243
23	309	500	953	470	824	1040	1400	912	446	195	149	234
24	383	480	1030	470	1470	986	1390	767	383	185	145	221
25	457	482	931	460	1950	1010	1240	646	388	181	151	199
26	409	488	777	460	1940	968	1060	586	434	177	161	188
27	363	513	966	450	1990	893	966	591	480	191	184	411
28	397	557	827	410	2170	978	855	769	441	185	237	1060
29	399	580	1010	410	---	1560	806	844	767	166	318	1430
30	651	926	1850	400	---	1810	758	746	715	158	270	1290
31	552	---	1970	400	---	1880	---	613	---	160	254	---
TOTAL	13309	21767	31937	30290	21957	49835	43915	27937	18024	9516	6133	16973
MEAN	429	726	1030	977	784	1608	1464	901	601	307	198	566
MAX	931	1430	1970	2240	2170	2580	2100	1590	1170	657	318	1660
MIN	280	309	560	400	350	893	758	576	383	158	145	188
CFSM	.68	1.16	1.64	1.56	1.25	2.56	2.33	1.43	.96	.49	.32	.90
IN.	.79	1.29	1.89	1.79	1.30	2.95	2.60	1.65	1.07	.56	.36	1.01

CAL YR 1984 TOTAL 436053 MEAN 1191 MAX 5380 MIN 230 CFSM 1.90 IN. 25.83
WTR YR 1985 TOTAL 291593 MEAN 799 MAX 2580 MIN 145 CFSM 1.27 IN. 17.27

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. 5-12, 21, 22, 26-28, Jan. 3 to Feb. 22, 28, Mar. 3-11, 16-27. 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.--55 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, 737 ft^3/s Feb. 25, gage height, 5.33 ft; minimum, 3.8 ft^3/s Aug. 15, 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	7.4	30	49	10	62	114	48	34	29	60	19
2	45	6.5	27	47	10	58	97	46	23	24	14	14
3	40	6.5	20	45	9.9	56	83	42	18	20	9.7	13
4	29	6.5	19	44	9.8	50	80	42	18	20	8.2	11
5	20	34	18	41	9.7	47	79	45	18	18	7.1	9.1
6	15	35	18	40	9.6	58	192	67	43	16	5.8	111
7	13	20	17	36	9.4	68	257	165	39	16	5.5	43
8	11	13	16	31	9.2	60	149	92	26	14	7.2	20
9	9.8	12	20	30	9.0	55	116	61	53	13	7.4	15
10	8.6	12	18	29	8.9	48	86	53	30	13	6.0	59
11	8.6	13	21	28	8.6	41	82	51	21	13	5.2	32
12	8.5	29	25	27	10	171	81	48	43	13	5.2	18
13	7.7	36	32	25	24	298	80	51	83	13	4.9	15
14	7.7	26	56	23	35	109	75	47	73	13	4.5	12
15	7.7	25	39	22	23	67	90	41	44	12	4.1	9.9
16	7.3	22	34	21	21	64	181	39	32	27	4.3	9.6
17	7.2	27	37	20	19	52	188	39	125	14	4.7	8.6
18	7.1	22	49	19	17	48	108	177	102	11	4.3	7.1
19	6.2	17	37	18	16	54	208	160	99	9.8	4.3	6.7
20	5.9	19	33	17	15	44	134	82	56	8.6	5.5	6.1
21	5.8	17	29	15	14	46	121	57	55	8.1	6.8	5.8
22	5.8	14	32	14	14	50	144	52	50	13	5.2	5.8
23	7.5	20	33	14	28	48	150	44	31	11	4.6	5.8
24	8.3	14	30	13	551	44	117	39	28	9.6	4.0	4.9
25	7.2	13	28	13	465	48	98	37	32	7.1	4.9	11
26	7.2	15	25	12	129	50	100	34	32	5.8	8.1	9.3
27	7.2	18	22	12	82	45	105	40	31	7.4	39	60
28	7.2	17	28	11	76	115	106	58	29	8.1	16	193
29	8.8	83	150	11	---	257	96	44	58	7.3	9.3	33
30	11	53	235	11	---	245	62	35	43	5.8	16	18
31	8.9	---	63	10	---	147	---	30	---	7.1	46	---
TOTAL	355.0	652.9	1241	748	1643.1	2605	3579	1866	1369	407.7	337.8	785.7
MEAN	11.5	21.8	40.0	24.1	58.7	84.0	119	60.2	45.6	13.2	10.9	26.2
MAX	45	83	235	49	551	298	257	177	125	29	60	193
MIN	4.8	6.5	16	10	8.6	41	62	30	18	5.8	4.0	4.9
MEAN†	11.4	21.8	41.3	22.9	60.0	87.1	116	61.0	45.8	11.6	10.4	26.1
CFSM†	.29	.56	1.06	.59	1.54	2.24	2.98	1.57	1.18	.30	.27	.67
IN†	.34	.63	1.22	.68	1.61	2.58	3.33	1.81	1.31	.34	.31	.75

CAL YR 1984 TOTAL 24039.8 MEAN 65.7 MAX 535 MIN 3.7 MEAN† 66.2 CFSM† 1.70 IN† 23.18
WTR YR 1985 TOTAL 15590.2 MEAN 42.7 MAX 551 MIN 4.0 MEAN† 42.7 CFSM† 1.10 IN† 14.90

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: Jan. 6 to Feb. 19. Records good except those for estimated period, period of shifting control, Oct. 1-10, Nov. 1 to Jan. 5, Sept. 7-30, and period of backwater from debris Oct. 11-30, which are poor. Discharge affected since 1935 by Wrightsville Detention Reservoir (Reservoirs in Winooski River basin). Flow regulated by powerplant at Wrightsville Detention Reserovir 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.--52 years, 134 ft^3/s, 26.30 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft^3/s Apr. 12, 1934, gage height, 6.53 ft, from rating curve extended above 920 ft^3/s; minimum daily, 0.2 ft^3/s Aug. 13, 1941. Maximum discharge since construction of Wrightsville Detention Reservoir in 1935, 1,040 ft^3/s Mar. 21, 1936, gage height, 4.32 ft; maximum gage height, 5.43 ft Mar. 12, 1936 (ice jam).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 17,200 ft^3/s Nov. 3, 1927, by computation of peak flow over dam 0.8 mi above gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 798 ft^3/s Mar. 30, gage height, 3.67 ft; minimum daily, 6.6 ft^3/s Aug. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	20	161	641	30	202	309	115	43	49	14	44
2	28	19	137	580	30	199	234	155	44	41	17	32
3	84	19	107	429	30	192	189	351	44	41	17	32
4	113	19	99	327	30	159	171	333	44	41	17	74
5	118	116	96	159	28	109	159	288	44	41	15	69
6	89	285	100	110	28	140	222	255	44	40	13	111
7	63	206	79	70	26	117	555	241	45	39	12	132
8	46	127	81	44	26	126	425	227	44	27	10	128
9	36	102	106	32	26	126	295	162	45	23	8.6	45
10	31	92	53	44	28	128	232	108	44	25	7.7	32
11	28	92	77	70	32	129	190	96	44	21	7.7	32
12	25	176	106	46	34	134	209	95	47	19	7.2	32
13	23	257	109	34	36	263	216	98	51	19	6.7	44
14	21	214	158	30	32	276	191	100	127	18	6.6	32
15	20	174	176	27	26	209	154	98	207	15	6.9	32
16	19	138	157	24	54	174	633	94	196	14	6.9	29
17	18	122	111	24	50	147	707	92	184	15	6.8	37
18	14	109	127	26	40	135	675	112	176	17	6.8	33
19	12	95	88	28	84	129	671	143	138	21	6.8	33
20	13	75	130	30	47	123	663	233	100	20	7.1	33
21	14	85	113	30	56	127	640	265	94	20	7.0	34
22	16	83	93	28	45	103	635	232	83	19	7.0	34
23	20	34	102	26	72	129	599	157	80	16	7.0	27
24	20	16	102	24	140	130	415	81	77	14	7.0	33
25	19	31	102	24	659	117	286	43	74	13	7.0	32
26	19	61	140	24	623	92	258	44	71	12	7.0	33
27	20	49	114	26	330	94	215	49	67	11	18	52
28	22	82	68	26	223	134	169	194	62	11	23	70
29	21	240	331	26	---	687	143	212	59	11	23	74
30	21	267	677	28	---	722	127	78	58	11	27	132
31	21	---	679	28	---	556	---	49	---	12	43	---
TOTAL	1025	3405	4779	3065	2865	6108	10587	4800	2436	696	376.8	1557
MEAN	33.1	114	154	98.9	102	197	353	155	81.2	22.5	12.2	51.9
MAX	118	285	679	641	659	722	707	351	207	49	43	132
MIN	11	16	53	24	26	92	127	43	43	11	6.6	27
MEAN†	34.5	124	208	63.1	114	199	350	125	78.8	22.2	39.5	52.9
CFSM†	.50	1.79	3.01	.91	1.65	2.88	5.06	1.81	1.14	.32	.57	.76
IN†	.58	2.01	3.47	1.05	1.72	3.31	5.65	2.08	1.27	.37	.66	.85

CAL YR 1984 TOTAL 55453.8 MEAN 152 MAX 847 MIN 6.3 CFSM 2.20 IN 29.81 MEAN† 156 CFSM† 2.25 IN† 30.79
WTR YR 1985 TOTAL 41699.8 MEAN 114 MAX 722 MIN 6.6 CFSM 1.65 IN 22.42 MEAN† 117 CFSM† 1.69 IN† 23.02

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, 1,139.15 ft Mar. 13; minimum, 1128.36 ft Nov. 26, 28.

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, 645.67 ft Dec. 30; minimum, 614.14 ft Oct. 1.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

	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	1128.93	4.3	--	--
Oct. 31	1128.89	4.2	-.1	-.04
Nov. 30	1129.06	4.4	+.2	+.08
Dec. 31	1131.70	7.8	+3.4	+1.27
CAL YR 1984	--	--	+.1	0
Jan. 31	1129.10	4.5	-3.3	-1.23
Feb. 28	1131.57	7.6	+3.1	+1.28
Mar. 31	1136.08	15.7	+8.1	+3.02
Apr. 30	1131.03	6.9	-8.8	-3.40
May 31	1132.50	9.0	+2.1	+.78
June 30	1132.83	9.5	+.5	+.19
July 31	1129.84	5.4	-4.1	-1.53
Aug. 31	1128.66	4.0	-1.4	-.52
Sept. 30	1128.49	3.8	-.2	-.08
WTR YR 1985	--	--	-.5	-.02
		04285000 Wrightsville Detention Reservoir		
Sept. 30	614.41	3.9	--	--
Oct. 31	615.87	7.9	+4.0	+1.49
Nov. 30	623.42	36.4	+28.5	+11.0
Dec. 31	642.94	181.3	+144.9	+54.1
CAL YR 1984	--	--	157.4	4.98
Jan. 31	631.87	85.4	-95.9	-35.8
Feb. 28	635.58	114.3	+28.9	+11.9
Mar. 31	636.17	119.2	+4.9	+1.83
Apr. 30	635.30	112.0	-7.2	-2.78
May 31	622.51	32.3	-79.7	-29.8
June 30	621.00	26.0	-6.3	-24.3
July 31	620.85	25.4	-0.6	-0.22
Aug. 31	633.64	98.7	+73.3	+27.4
Sept. 30	633.96	101.2	+2.5	+0.96
WTR YR 1985	--	--	+97.3	+3.09

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 gatge at present site and datum.
REMARKS.--Estimated daily discharges: Dec. 4-9, 26-29, Jan. 6 to Mar. 8, Mar. 19-21. 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.--66 years (water years 1915-23, 1929-85), 591 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)
Feb. 25	0400	ice jam	*10.02	Mar. 12	1845	*3,000	7.17

Minimum daily discharge, 70 ft^3/s Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	166	456	1300	270	850	1230	586	357	277	312	326
2	533	163	371	1310	230	900	1050	569	321	256	185	216
3	831	186	317	1030	200	800	929	726	277	232	153	184
4	495	140	350	858	180	560	893	707	245	251	111	213
5	390	491	340	676	185	450	923	690	269	202	106	201
6	319	965	250	400	235	540	1450	873	364	223	96	815
7	239	576	330	370	200	600	2140	1270	393	204	91	524
8	191	393	275	460	190	640	1680	973	323	233	89	355
9	183	323	330	390	155	613	1390	703	403	206	88	206
10	215	307	284	365	160	579	1070	567	312	193	81	489
11	181	271	371	370	150	603	963	507	262	183	82	363
12	178	538	424	370	250	1850	958	463	435	168	96	225
13	148	815	540	345	380	1990	917	524	701	155	89	204
14	138	630	716	340	500	1340	830	505	795	136	80	192
15	132	482	560	350	430	1020	816	439	657	145	96	163
16	126	450	452	315	340	779	1660	430	516	299	92	152
17	126	475	416	260	245	736	1900	448	758	209	93	161
18	123	313	554	270	240	690	1580	1030	701	166	82	139
19	120	304	455	270	225	660	2090	1170	720	157	73	134
20	126	305	416	245	300	650	1740	835	491	144	90	153
21	125	306	372	265	280	660	1610	747	479	124	85	127
22	128	283	349	290	320	634	1660	656	394	115	79	124
23	151	210	394	255	470	611	1660	519	324	145	72	116
24	143	178	364	225	1500	625	1340	418	318	105	70	124
25	133	190	339	235	2200	687	1100	334	316	103	82	180
26	135	234	330	240	1800	611	1000	311	317	114	98	187
27	143	273	295	200	1350	644	901	450	302	113	638	491
28	145	300	340	155	1000	1160	801	885	317	92	287	1330
29	148	648	1200	195	---	2130	754	674	436	86	158	447
30	167	773	2240	230	---	2020	661	430	335	94	296	346
31	167	---	1450	250	---	1600	---	358	---	118	632	---
TOTAL	6482	11688	15880	12834	13985	28232	37696	19797	12838	5248	4682	8887
MEAN	209	390	512	414	499	911	1257	639	428	169	151	296
MAX	831	965	2240	1310	2200	2130	2140	1270	795	299	638	1330
MIN	103	140	250	155	150	450	661	311	245	86	70	116
(†)	397.1	358.4	324.7	241.6	203.7	114.4	306.2	391.7	424.2	418.3	424.6	415.0

CAL YR 1984 TOTAL 265202 MEAN 725 MAX 6950 MIN 93
WTR YR 1985 TOTAL 178249 MEAN 488 MAX 2240 MIN 70

† 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 mi^2.

PERIOD OF RECORD.--Discharge: October 1934 to current year. October 1934 monthly discharge only, published in WSP 1307.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1237: 1935-37.

GAGE.--Water-stage recorder. Datum of gage is 603.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 3-12, Jan. 3 to Feb. 13, Mar. 5-7. 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.--51 year, 123 ft^3/s, 21.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s, June 30, 1973, gage height, 11.57 ft, from rating curve extended above 1,500 ft^3/s on basis of computation of flow over dam at gage height 8.49 ft and slope-area measurements at gage heights 8.96 ft, 11.53 ft, and 11.57; minimum, 4.3 ft^3/s Aug. 31, Sept. 7, 1942.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 25	0415	*1,360	*4.23				

Minimum discharge, 10 ft^3/s Aug. 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	17	97	196	30	170	276	101	77	86	63	100
2	66	17	81	176	29	180	236	97	71	74	39	70
3	61	17	64	130	28	154	206	92	64	65	25	55
4	37	17	58	125	28	113	185	90	55	58	20	47
5	28	50	51	115	27	113	173	94	50	52	18	42
6	24	73	42	110	27	122	294	128	62	46	16	197
7	22	40	41	105	26	130	490	242	76	48	15	171
8	24	30	40	86	26	106	359	190	69	54	15	100
9	20	27	48	84	25	106	286	143	65	50	16	71
10	19	28	45	82	24	106	227	124	59	46	15	195
11	19	27	49	80	24	102	200	114	47	44	14	162
12	19	112	58	76	26	323	188	106	68	41	14	105
13	23	108	120	70	52	418	171	116	129	37	14	87
14	20	79	161	66	77	262	158	109	155	34	13	73
15	18	61	108	62	51	204	165	101	122	32	12	64
16	18	64	95	58	55	164	313	98	101	35	12	57
17	23	73	119	56	46	154	327	99	118	33	12	52
18	19	59	146	54	39	133	201	170	112	30	11	49
19	22	52	113	50	40	122	281	192	110	27	12	46
20	21	44	100	46	36	130	247	141	100	25	13	42
21	18	42	82	43	37	121	238	121	101	23	15	39
22	19	39	89	41	42	116	281	108	97	24	13	36
23	19	37	90	40	88	116	255	100	84	26	12	33
24	17	37	80	38	461	116	194	93	72	23	11	31
25	17	37	77	37	862	111	164	85	70	21	11	34
26	18	36	70	35	329	106	147	79	66	19	18	34
27	21	36	62	33	247	108	136	85	64	19	93	132
28	20	40	78	32	182	211	126	108	66	18	67	345
29	20	97	699	32	---	496	117	101	105	20	45	130
30	20	153	701	31	---	477	107	94	99	16	44	98
31	18	---	270	31	---	355	---	84	---	17	136	---
TOTAL	724	1549	3934	2220	2964	5645	6748	3605	2534	1143	834	2697
MEAN	23.4	51.6	127	71.6	106	182	225	116	84.5	36.9	26.9	89.9
MAX	66	153	701	196	862	496	490	242	155	86	136	345
MIN	14	17	40	31	24	102	107	79	47	16	11	31
CFSM	.31	.68	1.67	.94	1.39	2.39	2.96	1.52	1.11	.48	.35	1.18
IN.	.35	.76	1.92	1.09	1.45	2.76	3.30	1.76	1.24	.56	.41	1.32

CAL YR 1984 TOTAL 49430 MEAN 135 MAX 1740 MIN 12 CFSM 1.77 IN. 24.16
WTR YR 1985 TOTAL 34597 MEAN 94.8 MAX 862 MIN 11 CFSM 1.25 IN. 16.91

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. 3-12, 26-29, Jan. 1 to Mar. 10. 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.--57 years (water years 1928-85), 256 ft^3/s, 25.11 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)
Dec. 29	0200	*3,400	7.02	Feb. 25	0715	ice jam	*9.70

Minimum discharge, 18 ft^3/s Aug. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	52	307	460	74	360	450	252	144	163	132	188
2	221	55	238	430	72	380	364	220	128	130	60	120
3	192	64	180	360	70	330	314	200	108	120	44	97
4	211	56	170	330	68	250	308	191	95	106	38	84
5	134	544	145	300	68	240	340	235	93	89	34	73
6	95	377	130	240	66	260	899	419	204	79	30	768
7	76	188	125	230	66	280	942	794	178	156	29	367
8	68	135	120	220	64	230	655	540	134	171	43	195
9	63	116	140	210	64	225	514	359	119	113	34	130
10	59	116	135	210	62	225	384	293	101	94	28	451
11	55	116	150	200	62	220	351	269	85	92	26	249
12	52	601	160	190	68	824	329	239	290	75	29	162
13	51	421	530	180	130	737	297	360	513	72	25	136
14	49	250	503	170	250	463	282	274	630	63	22	115
15	47	189	292	160	140	334	540	229	370	64	23	97
16	46	215	235	150	150	281	1120	217	234	98	36	84
17	44	200	454	140	130	258	924	225	285	66	29	76
18	43	158	486	135	110	227	584	569	294	56	22	68
19	43	145	318	130	115	191	864	454	318	51	20	63
20	60	129	262	120	100	224	642	308	207	48	28	58
21	53	121	225	110	110	211	722	248	268	44	31	54
22	57	114	228	105	130	187	979	213	179	52	23	52
23	62	117	304	100	220	200	822	184	144	47	20	50
24	56	109	260	96	1100	212	635	160	122	38	20	52
25	52	110	198	94	2200	189	523	142	111	34	28	71
26	52	111	190	90	950	166	514	133	135	34	40	55
27	58	113	170	84	520	177	442	307	127	52	441	523
28	55	144	200	82	400	699	335	348	163	39	104	974
29	61	457	2000	80	---	1140	299	213	381	33	61	317
30	65	563	1580	78	---	880	265	166	222	39	332	198
31	57	---	701	76	---	572	---	141	---	40	571	---
TOTAL	2272	6086	11136	5560	7559	11172	16639	8902	6382	2358	2403	5927
MEAN	73.3	203	359	179	270	360	555	287	213	76.1	77.5	198
MAX	221	601	2000	460	2200	1140	1120	794	630	171	571	974
MIN	35	52	120	76	62	166	265	133	85	33	20	50
CFSM	.53	1.46	2.58	1.29	1.94	2.59	3.99	2.06	1.53	.55	.56	1.42
IN.	.61	1.63	2.98	1.49	2.02	2.99	4.45	2.38	1.71	.63	.64	1.59

CAL YR 1984 TOTAL 108387 MEAN 296 MAX 2830 MIN 24 CFSM 2.13 IN. 29.01
WTR YR 1985 TOTAL 86396 MEAN 237 MAX 2200 MIN 20 CFSM 1.71 IN. 23.12

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, 578.45 ft May 28; minimum not determined.

ELEVATION (FEET NGVD) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	532.15	532.13	541.15	560.30	531.43	550.95	543.22	559.34	573.37	530.79	505.05	515.00
2	533.04	531.58	539.51	559.20	532.23	550.23	542.19	558.30	572.05	531.70	504.28	509.90
3	535.40	532.08	537.60	558.00	532.95	548.99	541.00	557.07	570.60	531.97	504.05	505.36
4	539.38	532.50	535.34	557.30	532.70	547.26	539.93	555.70	569.13	529.87	504.00	505.83
5	538.74	536.77	532.58	556.60	532.48	545.72	539.17	554.62	567.67	526.35	504.03	506.34
6	536.25	538.59	532.40	554.90	531.53	543.87	541.28	555.54	566.59	521.76	504.05	507.63
7	533.37	538.64	531.70	553.20	531.24	541.86	542.72	557.50	565.18	517.18	504.12	507.54
8	533.73	538.44	532.60	550.67	530.62	539.90	543.48	558.92	563.75	514.20	504.68	506.78
9	533.82	537.45	533.50	548.45	531.33	537.84	543.08	559.97	562.25	511.50	505.10	506.32
10	534.03	538.04	533.28	546.50	532.03	535.57	542.08	561.08	560.63	504.00	505.05	506.45
11	534.23	539.15	533.08	544.25	531.70	533.29	540.86	562.37	558.90	503.20	505.00	506.75
12	534.72	543.35	533.24	542.03	529.96	535.63	539.48	563.40	558.17	502.80	504.75	506.80
13	535.21	543.96	534.70	539.59	531.60	536.85	537.89	564.72	558.85	502.40	504.47	506.38
14	535.57	532.57	535.38	536.89	533.19	536.18	536.18	565.71	560.43	502.00	504.08	506.12
15	535.27	540.73	535.94	533.93	532.15	534.64	537.85	566.42	559.56	511.30	503.17	505.90
16	535.05	538.86	536.90	531.12	533.24	532.52	544.90	567.08	558.25	518.70	502.75	505.75
17	534.60	536.78	536.91	529.72	534.13	530.13	547.58	568.08	556.83	514.50	502.90	505.65
18	534.11	534.16	537.20	529.29	534.97	529.28	548.83	570.89	556.18	512.30	503.08	505.52
19	533.68	532.70	536.80	530.37	534.21	530.30	551.88	572.35	554.94	510.10	503.20	505.40
20	534.05	532.50	536.10	531.39	533.23	531.48	552.76	573.32	553.39	507.30	503.95	505.32
21	534.45	532.60	535.10	529.70	532.18	532.38	555.00	574.03	551.72	504.80	503.58	505.27
22	534.40	532.80	534.50	529.42	530.89	533.15	558.15	574.63	549.78	503.10	503.43	505.21
23	534.18	532.60	533.80	528.87	534.60	534.63	560.02	575.19	547.79	502.30	503.63	505.15
24	533.91	533.14	533.20	528.82	545.96	535.22	560.63	575.60	545.63	502.00	504.00	505.63
25	533.52	534.04	532.80	529.41	552.87	534.00	561.02	575.99	543.39	501.70	504.38	505.79
26	532.83	533.80	532.10	530.36	553.16	532.73	561.68	576.38	541.39	502.00	504.91	505.51
27	533.38	533.08	531.50	531.25	552.85	531.30	561.80	577.71	539.01	502.40	505.11	511.20
28	533.91	533.39	529.93	531.49	551.88	535.85	561.28	578.11	536.55	502.70	504.68	517.00
29	533.61	538.90	546.40	531.58	---	541.79	560.60	577.10	534.25	503.10	505.96	510.50
30	533.32	542.14	554.50	531.80	---	543.78	560.06	575.93	531.29	502.60	512.00	508.40
31	532.76	---	560.50	531.60	---	543.71	---	574.58	---	504.50	520.00	---
MEAN	534.41	535.92	536.46	539.61	535.76	537.78	548.55	567.34	555.58	510.81	504.95	507.21
MAX	539.38	543.96	560.50	560.30	553.16	550.95	561.80	578.11	573.37	531.97	520.00	517.00
MIN	532.15	531.58	529.93	528.82	529.96	529.28	536.18	554.62	531.29	501.70	502.75	505.15
(†)	211.9	334.6	670.0	198.9	479.0	358.0	660.1	1012.6	195.3	18.7	92.6	28.5
(‡)	+1.12	+47.3	+125.2	-175.9	+123.2	-51.9	+116.6	+131.6	-315.3	-67.8	+29.5	-24.7

CAL YR 1984 MEAN 538.28 MAX 579.26 MIN 501.53 (†) -5.72
WTR YR 1985 MEAN 534.50 MAX 578.11 MIN 501.70 (‡) +12.8

† 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.--No estimated daily discharges. Records fair. Flow completely regulated by Waterbury Reservoir (station 04288500). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--50 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, 828 ft^3/s Aug. 31, gage height, 8.22 ft; minimum daily, 8.6 ft^3/s Oct. 1.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	120	485	520	108	505	506	520	548	186	138	268
2	143	119	495	515	20	509	508	521	548	10	98	517
3	10	10	460	510	20	508	495	524	548	169	72	147
4	10	10	480	510	106	508	470	525	529	466	57	103
5	285	107	460	505	106	475	463	524	535	457	53	94
6	480	110	250	505	164	499	519	250	534	444	49	197
7	465	157	60	505	110	487	531	20	541	367	46	217
8	52	146	15	504	129	487	431	17	534	285	49	147
9	77	243	15	504	21	491	481	16	527	385	62	106
10	60	83	70	504	20	486	491	17	526	185	58	121
11	47	14	130	504	111	483	504	16	522	116	50	126
12	10	234	140	504	232	490	504	16	494	95	48	111
13	10	322	210	502	77	458	504	16	388	85	50	94
14	10	499	175	500	83	483	500	16	380	79	43	82
15	98	499	120	499	260	491	490	15	552	107	67	73
16	84	502	54	446	26	487	490	15	555	412	89	68
17	102	501	330	252	23	483	488	17	556	413	55	63
18	107	496	310	151	21	316	505	24	556	381	44	60
19	102	328	240	27	173	90	503	20	554	139	40	56
20	12	146	350	25	199	87	514	19	550	100	66	53
21	12	218	390	261	201	95	466	18	545	88	63	49
22	81	15	210	124	276	90	486	17	538	79	44	46
23	101	144	200	146	20	18	506	17	532	68	41	46
24	92	16	130	110	33	87	515	19	527	63	38	48
25	102	15	100	51	346	363	521	24	523	55	43	63
26	140	144	140	21	509	303	522	24	518	60	67	62
27	11	202	115	22	509	313	526	35	509	105	139	72
28	11	144	250	66	504	511	530	253	503	68	119	497
29	103	106	300	85	---	504	530	548	497	55	67	486
30	87	76	500	67	---	504	497	548	488	80	215	235
31	119	---	520	103	---	508	---	548	---	76	402	---
TOTAL	3116	5726	7704	9548	4407	12119	14996	5159	15657	5678	2472	4307
MEAN	101	191	249	308	157	391	500	166	522	183	79.7	144
MAX	480	502	520	520	509	511	531	548	556	466	402	517
MIN	10	10	15	21	20	18	431	15	380	10	38	46

CAL YR 1984 TOTAL 93991.4 MEAN 257 MAX 597 MIN 5.7
WTR YR 1985 TOTAL 90889 MEAN 249 MAX 556 MIN 10

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. 8-9, Jan. 6 to Mar. 25, July 31. 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.--57 years, 1,714 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)
Dec. 30	0500	*14,000	10.17	Feb. 2	1545	ice jam	*14.07

Minimum daily discharge, 74 ft^3/s July 31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	498	2250	3170	790	3600	3270	1910	1390	1440	492	1740
2	703	317	1790	3340	700	3650	2850	1750	1260	711	861	1150
3	1400	608	1320	2570	540	3000	2560	1710	1230	671	499	725
4	1220	130	1400	1940	590	1650	2500	1700	1040	892	340	461
5	991	1050	1420	2100	640	1600	2670	1760	918	1100	203	439
6	927	1990	1200	1700	780	2100	4270	2080	1410	1040	204	1380
7	1030	1680	823	1350	940	1800	6660	2470	1360	856	200	2300
8	551	1190	520	1390	660	2250	4680	2670	1450	942	186	1200
9	533	851	700	1230	690	2200	3650	2010	1130	1030	198	859
10	453	724	959	1500	530	2000	2980	1480	1010	700	197	681
11	461	429	1260	1550	510	2300	2680	1350	1040	857	215	1450
12	474	1470	1030	1600	660	4300	2560	1310	1210	538	143	960
13	175	2400	1740	1500	1150	7200	2410	1230	2060	230	155	698
14	213	2050	2530	1520	1400	5000	2250	1400	3250	420	146	683
15	421	1700	2000	1590	1850	3900	2360	1130	2610	660	315	597
16	408	1550	1590	1300	1300	2900	4330	1080	2090	1510	342	380
17	369	1620	1400	1090	840	2700	5540	1070	1780	865	218	300
18	357	1670	2130	1000	900	2300	3730	1500	2030	841	395	314
19	389	1230	1950	940	780	1750	5410	2870	2230	729	223	390
20	462	783	1560	670	900	2000	4380	1990	1960	96	188	491
21	78	770	1480	760	1020	1900	3960	1650	1750	343	232	333
22	315	940	1300	860	1100	1650	4400	1310	1630	402	113	291
23	344	556	1310	900	1550	1550	4660	1160	1350	429	433	486
24	397	706	1230	960	5000	1600	3700	1010	1170	368	86	631
25	456	333	1080	820	8200	1900	3010	857	1110	219	163	226
26	476	630	775	760	5200	1650	2840	790	1250	549	272	550
27	278	856	831	610	4600	1500	2690	841	964	461	1210	611
28	264	889	848	620	3500	2710	2370	1930	1130	93	892	4410
29	367	1380	4830	670	---	6270	2170	2090	1480	277	281	2170
30	426	2770	10600	770	---	5890	2030	1730	1560	847	913	1200
31	393	---	4450	700	---	4270	---	1430	---	74	2100	---
TOTAL	15701	33770	58306	41480	47320	89090	103570	49268	45852	20190	12415	28106
MEAN	506	1126	1881	1338	1690	2874	3452	1589	1528	651	400	937
MAX	1400	2770	10600	3340	8200	7200	6660	2870	3250	1510	2100	4410
MIN	78	130	520	610	510	1500	2030	790	918	74	86	226

CAL YR 1984 TOTAL 719015 MEAN 1965 MAX 15200 MIN 78
WTR YR 1985 TOTAL 545068 MEAN 1493 MAX 10600 MIN 74

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. 2-14, Dec. 19 to Mar. 12, Mar. 16-27. 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.--59 years (water years 1912-13, 1929-85), 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)
Dec. 30	1530	ice jam	*8.95	Apr. 17	0900	*3,520	8.33

Minimum discharge, 35 ft^3/s, Nov. 2.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	215	554	970	160	650	1070	636	260	110	204	462
2	142	48	450	800	155	600	859	559	258	159	178	332
3	440	117	400	700	150	460	721	488	269	170	143	294
4	688	119	370	570	145	400	670	331	254	205	143	262
5	551	559	350	500	140	360	688	351	196	187	137	175
6	384	1210	330	450	140	330	1600	690	228	151	135	257
7	332	573	350	415	135	320	2600	830	429	177	136	259
8	318	406	340	400	135	340	1690	820	319	209	128	222
9	264	342	330	360	130	370	1320	628	311	194	133	217
10	169	327	320	360	125	400	969	545	275	169	112	179
11	159	329	310	340	125	380	836	401	155	169	102	183
12	158	1020	360	325	140	900	816	436	242	142	102	174
13	158	888	470	310	190	2060	780	573	612	138	95	172
14	158	623	690	300	270	1370	714	599	1160	135	100	167
15	156	521	508	275	210	922	824	446	692	180	117	163
16	155	461	425	260	180	700	2330	327	503	902	119	148
17	155	510	475	240	160	550	2810	391	212	419	101	122
18	155	420	687	230	150	500	1610	1000	467	257	96	122
19	157	367	525	220	145	440	2870	1650	554	195	88	126
20	161	350	420	210	140	430	1850	848	327	187	98	145
21	150	343	370	200	140	420	1800	630	275	167	95	109
22	138	336	350	195	150	410	1920	529	297	165	90	110
23	134	269	325	190	250	400	1870	357	186	165	83	92
24	128	186	280	185	1400	400	1580	318	242	195	85	101
25	125	243	330	185	2150	380	1310	312	265	188	88	102
26	133	270	320	180	1600	380	1200	308	351	148	96	141
27	140	319	310	180	1050	400	1110	378	242	122	136	132
28	145	328	300	175	770	1210	947	747	121	134	177	622
29	141	391	1250	175	---	2700	790	586	136	98	131	373
30	99	716	2800	170	---	1990	727	386	111	180	178	214
31	214	---	1750	165	---	1520	---	251	---	143	683	---
TOTAL	6514	12806	17049	10235	10635	22692	40881	17351	9949	6160	4309	6177
MEAN	210	427	550	330	380	732	1363	560	332	199	139	206
MAX	688	1210	2800	970	2150	2700	2870	1650	1160	902	683	622
MIN	99	48	280	165	125	320	670	251	111	98	83	92
CFSM	.68	1.38	1.77	1.06	1.23	2.36	4.40	1.81	1.07	.64	.45	.66
IN.	.78	1.54	2.05	1.23	1.28	2.72	4.91	2.08	1.19	.74	.52	.74

CAL YR 1984 TOTAL 249495 MEAN 681 MAX 7720 MIN 48 CFSM 2.20 IN. 29.94
WTR YR 1985 TOTAL 164758 MEAN 451 MAX 2870 MIN 48 CFSM 1.45 IN. 19.77

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: Nov. 29 to Mar. 26. 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.--56 years, 1,245 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)
Dec. 30	1500	*14,100	10.09	Feb. 25	0530	ice jam	*17.44

Minimum discharge, 106 ft³/s Sept. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369	384	1780	3020	400	1450	2770	1560	775	390	338	958
2	349	361	1480	2460	390	1450	2220	1380	780	357	409	670
3	841	219	1160	1800	380	1150	1910	1190	664	370	326	517
4	1510	264	1010	1600	370	1000	1880	1010	641	602	277	473
5	1310	603	800	1400	360	800	2290	965	518	473	278	401
6	880	2490	700	1300	350	740	4170	1610	611	383	257	414
7	697	1470	650	1150	340	710	6230	2040	802	370	262	513
8	634	905	820	1050	340	700	4180	2050	843	605	224	455
9	597	740	800	950	340	710	3100	1540	704	702	253	375
10	466	708	780	900	350	780	2350	1320	648	509	229	367
11	384	741	950	880	370	950	1960	1360	509	464	204	326
12	378	1860	1110	830	420	2700	1770	1160	540	400	207	324
13	295	2930	1890	780	500	4700	1680	1550	1230	319	219	303
14	365	1730	2280	760	740	3880	1560	1490	3510	326	225	285
15	335	1260	1490	720	460	2500	1760	1240	2160	306	187	301
16	328	1230	1190	680	440	1680	4300	959	1250	2750	252	242
17	340	1360	1580	640	410	1500	6310	976	950	1360	252	225
18	284	1080	2080	600	390	1250	3980	1670	911	801	206	236
19	305	915	1700	580	390	1000	5850	3270	1560	597	219	236
20	319	838	1300	540	380	1100	4360	2030	1050	438	216	225
21	335	783	1000	520	380	1050	3780	1410	803	386	197	202
22	325	760	880	500	450	1000	4250	1220	664	372	183	188
23	412	729	900	480	1000	1050	4450	1000	610	297	172	220
24	333	636	820	460	3100	1140	3730	817	489	324	165	181
25	280	560	800	450	4900	1060	3050	730	608	349	158	198
26	346	628	900	440	3500	1010	2880	731	645	319	167	224
27	352	663	820	430	2350	1120	2760	931	741	320	203	321
28	321	726	760	420	1700	3410	2270	2220	541	270	360	1270
29	365	1250	2500	410	---	7020	1820	1560	475	295	283	1010
30	337	2650	12800	400	---	5650	1600	1080	485	330	294	693
31	298	---	6920	400	---	3920	---	824	---	396	708	---
TOTAL	14690	31473	54650	27550	25500	58180	95220	42893	26717	16180	7930	12353
MEAN	474	1049	1763	889	911	1877	3174	1384	891	522	256	412
MAX	1510	2930	12800	3020	4900	7020	6310	3270	3510	2750	708	1270
MIN	280	219	650	400	340	700	1560	730	475	270	158	181
CFSM	.69	1.53	2.57	1.30	1.33	2.74	4.63	2.02	1.30	.76	.37	.60
IN.	.80	1.71	2.96	1.49	1.38	3.15	5.16	2.33	1.45	.88	.43	.67

CAL YR 1984 TOTAL 507090 MEAN 1385 MAX 12800 MIN 158 CFSM 2.02 IN. 27.50
WTR YR 1985 TOTAL 413336 MEAN 1132 MAX 12800 MIN 158 CFSM 1.65 IN. 22.41

04293000 MISSISQUOI RIVER NEAR NORTH TROY, VT.

LOCATION.--Lat 44°58'22", long 72°23'15", Orleans County, Hydrologic Unit 02010007, on right bank 200 ft upstream from Big Falls, 1.5 mi downstream from Jay Branch, and 2.2 mi upstream from North Troy.

DRAINAGE AREA.--131 mi^2.

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

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

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

REMARKS.--Estimated daily discharges: Dec. 7-10, 15, 16, Dec. 21-28, Jan. 1 to Jan. 29, Feb. 1 to Feb. 25, Mar. 1-3, Mar. 16-26. 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.--54 years, 271 ft^3/s, 28.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,290 ft^3/s Apr. 18, 1982, gage height, 13.21 ft, from rating curve extended above 5,500 ft^3/s on basis of computation of flow over dam at gage height 11.70 ft; minimum, 9.4 ft^3/s Aug. 28, 1949; minimum daily, 11 ft^3/s Aug. 28, 1949, Aug. 30, 1953.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 29	2300	*6,490	*11.58	No other peak greater than base discharge.			

Minimum discharge, 18 ft^3/s Sept. 19, 20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	52	253	315	46	350	479	382	131	71	116	114
2	54	54	237	200	45	280	371	304	133	65	74	73
3	164	57	153	180	45	240	302	240	104	68	55	62
4	395	59	148	170	45	220	275	211	85	68	47	131
5	205	184	119	160	45	201	280	286	78	63	42	126
6	117	460	89	155	45	204	1010	557	283	69	38	82
7	88	182	80	150	45	179	1140	463	510	157	35	82
8	71	122	94	140	45	182	650	429	194	273	42	62
9	69	92	100	130	46	191	513	294	185	160	39	50
10	65	90	120	120	47	174	362	254	119	102	33	45
11	58	109	135	115	48	179	345	260	100	78	31	45
12	60	784	163	110	52	454	315	214	191	67	32	58
13	49	567	352	110	56	788	284	354	408	60	31	41
14	45	286	438	105	90	491	260	315	599	53	29	34
15	46	194	200	100	94	314	647	204	285	82	27	24
16	46	227	180	92	78	210	1970	173	172	371	43	41
17	45	254	388	84	66	170	1850	197	166	154	54	33
18	44	158	477	80	62	150	691	554	226	95	34	31
19	51	135	282	74	60	160	1140	583	393	74	28	19
20	52	105	211	72	58	155	780	299	192	60	25	18
21	46	111	120	68	60	150	918	239	133	52	26	23
22	55	100	110	66	100	145	1150	187	101	51	25	24
23	60	95	130	64	190	160	1150	151	87	44	24	24
24	47	110	120	62	540	180	937	132	89	36	23	26
25	46	98	110	60	2000	160	840	112	86	35	34	37
26	54	93	95	60	1060	150	978	102	103	36	50	35
27	59	121	90	58	600	177	811	245	104	58	53	74
28	68	170	110	56	384	1250	506	464	79	55	63	454
29	68	492	3430	56	---	1900	419	227	94	45	46	159
30	52	385	3540	54	---	1300	384	155	79	111	70	86
31	45	---	608	48	---	728	---	123	---	74	271	---
TOTAL	2356	5946	12682	3314	6052	11592	21757	8710	5309	2787	1540	2113
MEAN	76.0	198	409	107	216	374	725	281	177	89.9	49.7	70.4
MAX	395	784	3540	315	2000	1900	1970	583	599	371	271	454
MIN	32	52	80	48	45	145	260	102	78	35	23	18
CFSM	.58	1.51	3.12	.82	1.65	2.85	5.53	2.15	1.35	.69	.38	.54
IN.	.67	1.69	3.60	.94	1.72	3.29	6.18	2.47	1.51	.79	.44	.60

CAL YR 1984 TOTAL 95735 MEAN 262 MAX 3540 MIN 22 CFSM 2.00 IN. 27.18
WTR YR 1985 TOTAL 84158 MEAN 231 MAX 3540 MIN 18 CFSM 1.76 IN. 23.90

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. 5-17, 20-29; Jan. 1 to Mar. 26. Records good except those for estimated daily discharges and shifting control Mar. 29 to Sept. 30, 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.--69 years, 927 ft^3/s, 26.28 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)
Dec. 30	1230	*10,300	11.81	Feb. 25	0730	ice jam	*16.69

Minimum discharge, 74 ft^3/s Sept. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	171	1150	2000	180	1300	2510	1250	489	220	1290	612
2	270	193	1020	990	175	1000	1810	1100	472	199	911	367
3	662	207	812	740	170	900	1480	907	380	190	571	298
4	1330	201	702	670	170	810	1330	774	308	240	392	803
5	941	710	580	610	165	720	1640	787	268	218	300	767
6	587	1340	640	560	165	725	3970	1530	611	214	244	436
7	427	862	480	540	165	650	4220	1550	1080	805	208	326
8	347	572	440	520	160	680	3090	1570	687	1380	306	276
9	341	458	460	480	160	680	2210	1260	615	1250	276	221
10	314	454	500	450	170	640	1650	1060	578	985	205	190
11	275	583	600	425	180	1150	1510	1080	406	880	175	175
12	249	1860	740	405	190	1800	1370	891	445	486	165	162
13	232	2590	900	400	230	2800	1200	1160	1040	348	155	162
14	208	1590	1550	380	325	1700	1130	1310	1600	291	144	147
15	194	1120	1000	360	340	1000	2150	913	1150	489	138	132
16	180	1150	710	340	290	820	4960	736	729	1430	151	126
17	171	1150	1300	320	240	710	5280	765	633	1250	153	117
18	164	894	1900	300	230	610	3940	1100	804	684	157	111
19	160	719	1310	280	220	550	3400	1740	979	472	136	109
20	166	632	900	265	225	580	2810	1170	793	359	124	94
21	176	576	590	260	225	570	2760	920	537	291	119	83
22	200	580	420	250	600	540	3200	757	401	249	113	79
23	191	559	410	240	1550	600	3270	607	323	222	103	79
24	184	500	490	235	3500	660	2860	504	282	200	96	78
25	165	483	415	230	7400	600	2450	427	283	179	116	101
26	212	461	380	220	4900	560	2450	363	346	175	168	105
27	238	503	350	210	3000	751	2800	794	334	228	190	186
28	235	653	1300	205	2050	3170	2060	1420	286	222	182	1350
29	233	1200	5000	200	---	5990	1570	960	267	201	161	936
30	216	1420	9680	195	---	5510	1350	627	252	1270	171	519
31	189	---	5320	190	---	3900	---	482	---	1010	774	---
TOTAL	9594	24391	42049	13470	27375	42676	76430	30514	17378	16637	8394	9147
MEAN	309	813	1356	435	978	1377	2548	984	579	537	271	305
MAX	1330	2590	9680	2000	7400	5990	5280	1740	1600	1430	1290	1350
MIN	137	171	350	190	160	540	1130	363	252	175	96	78
CFSM	.65	1.70	2.83	.91	2.04	2.87	5.32	2.05	1.21	1.12	.57	.64
IN.	.75	1.89	3.27	1.05	2.13	3.31	5.94	2.37	1.35	1.29	.65	.71

CAL YR 1984 TOTAL 313296 MEAN 856 MAX 9680 MIN 78 CFSM 1.79 IN. 24.33
WTR YR 1985 TOTAL 318055 MEAN 871 MAX 9680 MIN 78 CFSM 1.82 IN. 24.70

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, 5.36 ft Apr. 22, affected by seiche; minimum, 1.31 ft Nov. 4, affected by seiche.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.02	1.52	1.90	3.48	2.97	3.63	4.51	4.98	3.68	3.06	2.43	1.86
2	2.05	1.46	1.95	3.62	2.95	3.71	4.54	4.91	3.65	3.03	2.43	1.85
3	2.03	1.50	1.97	3.69	2.91	3.78	4.54	4.87	3.61	3.01	2.40	1.84
4	2.05	1.39	1.99	3.70	2.87	3.81	4.56	4.77	3.57	3.00	2.36	1.84
5	2.07	1.45	2.00	3.73	2.85	3.86	4.62	4.72	3.52	2.96	2.33	1.85
6	2.07	1.54	2.07	3.72	2.83	3.87	4.73	4.68	3.48	2.95	2.31	1.94
7	2.05	1.58	2.05	3.71	2.79	3.81	4.89	4.67	3.43	2.95	2.24	1.98
8	2.03	1.58	2.02	3.69	2.76	3.78	5.02	4.66	3.40	2.95	2.24	2.02
9	2.05	1.53	2.03	3.65	2.74	3.78	5.07	4.60	3.35	2.95	2.25	2.05
10	2.03	1.51	2.01	3.63	2.72	3.75	5.05	4.52	3.30	2.94	2.22	2.08
11	2.03	1.56	2.03	3.60	2.69	3.71	5.03	4.52	3.25	2.92	2.19	2.07
12	2.02	1.62	1.99	3.59	2.67	3.80	5.02	4.45	3.27	2.88	2.16	2.05
13	2.01	1.74	2.03	3.58	2.67	4.08	4.99	4.42	3.28	2.84	2.14	2.02
14	1.99	1.80	2.16	3.55	2.66	4.30	4.87	4.43	3.30	2.77	2.10	1.99
15	1.97	1.78	2.22	3.54	2.66	4.44	4.84	4.38	3.33	2.77	2.08	1.96
16	1.96	1.79	2.22	3.50	2.65	4.47	4.87	4.31	3.34	2.82	2.08	1.94
17	1.94	1.82	2.23	3.46	2.63	4.49	4.95	4.29	3.33	2.84	2.07	1.91
18	1.92	1.86	2.37	3.43	2.61	4.48	4.99	4.28	3.33	2.83	2.02	1.88
19	1.89	1.87	2.43	3.41	2.57	4.42	5.10	4.26	3.31	2.80	1.93	1.86
20	1.87	1.86	2.46	3.38	2.56	4.39	5.17	4.23	3.31	2.77	1.93	1.84
21	1.82	1.84	2.48	3.34	2.53	4.36	5.18	4.23	3.29	2.74	1.94	1.83
22	1.82	1.82	2.47	3.30	2.50	4.31	5.21	4.20	3.25	2.71	1.91	1.82
23	1.81	1.79	2.48	3.26	2.52	4.26	5.24	4.13	3.22	2.65	1.88	1.78
24	1.80	1.79	2.43	3.23	2.65	4.23	5.24	4.08	3.21	2.61	1.84	1.76
25	1.77	1.80	2.48	3.20	2.90	4.19	5.22	4.00	3.16	2.51	1.84	1.78
26	1.77	1.78	2.47	3.18	3.22	4.14	5.20	3.95	3.15	2.46	1.83	1.76
27	1.74	1.77	2.48	3.13	3.45	4.07	5.18	3.90	3.14	2.48	1.83	1.78
28	1.67	1.73	2.45	3.11	3.58	4.06	5.14	3.91	3.13	2.47	1.82	1.91
29	1.69	1.79	2.56	3.07	---	4.18	5.11	3.88	3.11	2.42	1.81	1.98
30	1.66	1.84	2.96	3.04	---	4.34	5.03	3.81	3.09	2.43	1.84	2.00
31	1.63	---	3.32	3.00	---	4.46	---	3.72	---	2.42	1.89	---
MEAN	1.91	1.69	2.28	3.44	2.79	4.10	4.97	4.35	3.33	2.77	2.08	1.91
MAX	2.07	1.87	3.32	3.73	3.58	4.49	5.24	4.98	3.68	3.06	2.43	2.08
MIN	1.63	1.39	1.90	3.00	2.50	3.63	4.51	3.72	3.09	2.42	1.81	1.76

CAL YR 1984 MEAN 3.94 MAX 6.75 MIN 1.39
WTR YR 1985 MEAN 2.97 MAX 5.24 MIN 1.39

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. 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, 98.28 ft Apr. 24; minimum, 93.91 ft Nov. 2.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94.83	95.11	94.78	96.41	95.80	96.53	97.43	97.75	96.62	95.92	95.22	94.73
2	94.77	94.45	94.76	96.39	95.77	96.54	97.40	97.76	96.58	95.91	95.23	94.76
3	95.07	94.35	94.90	96.52	95.75	96.55	97.43	97.56	96.44	95.92	95.26	94.76
4	94.85	94.75	94.87	96.58	95.72	96.64	97.39	97.58	96.39	95.89	95.26	94.71
5	94.84	94.37	94.85	96.51	95.67	96.74	97.45	97.54	96.36	95.89	95.23	94.69
6	94.89	94.35	94.86	96.52	95.64	96.69	97.62	97.50	96.30	95.85	95.24	94.76
7	94.95	94.37	94.89	96.49	95.64	96.74	97.75	97.47	96.30	95.85	95.32	94.88
8	94.94	94.45	95.08	96.47	95.62	96.68	97.83	97.39	96.26	95.81	95.18	94.86
9	94.86	94.58	94.90	96.47	95.59	96.61	97.84	97.55	96.30	95.82	95.11	94.83
10	94.87	94.61	94.96	96.45	95.55	96.60	97.94	97.46	96.16	95.79	95.10	94.81
11	94.85	94.44	94.85	96.44	95.52	96.60	97.86	97.32	96.09	95.77	95.07	94.81
12	94.84	94.39	95.11	96.43	95.49	96.64	97.83	97.36	96.10	95.82	94.97	94.83
13	94.83	94.45	94.91	96.41	95.51	96.88	97.76	97.34	96.13	95.78	94.99	94.82
14	94.82	94.55	94.91	96.42	95.51	97.15	97.96	97.20	96.16	95.81	94.99	94.81
15	94.80	94.91	95.13	96.33	95.50	97.23	97.77	97.27	96.20	95.69	94.95	94.82
16	94.78	94.74	95.46	96.31	95.49	97.29	97.60	97.28	96.20	95.69	94.91	94.80
17	94.75	94.62	95.23	96.29	95.49	97.28	97.69	97.14	96.18	95.68	94.88	94.80
18	94.74	94.68	95.17	96.26	95.45	97.25	97.94	97.09	96.26	95.67	94.95	94.79
19	94.76	94.65	95.27	96.23	95.44	97.31	97.89	97.14	96.24	95.73	95.05	94.75
20	94.71	94.63	95.31	96.21	95.39	97.20	97.98	97.21	96.17	95.62	94.82	94.76
21	94.82	94.62	95.33	96.17	95.38	97.16	98.00	97.06	96.17	95.63	94.75	94.64
22	94.63	94.69	95.57	96.15	95.37	97.15	98.01	97.02	96.21	95.57	94.71	94.69
23	94.64	94.72	95.44	96.11	95.36	97.09	98.01	97.01	96.15	95.49	94.73	94.72
24	94.64	94.63	95.57	96.06	95.48	97.02	98.11	96.93	96.04	95.54	94.73	94.66
25	94.62	94.65	95.31	96.03	95.73	96.96	98.07	96.87	95.99	95.67	94.73	94.61
26	94.55	94.64	95.24	95.99	96.08	96.96	98.02	96.79	95.90	95.47	94.68	94.72
27	94.61	94.66	95.30	95.99	96.27	96.95	97.98	96.77	95.85	95.35	94.72	94.57
28	94.75	94.70	95.38	95.93	96.44	96.89	97.96	96.68	95.84	95.33	94.66	94.76
29	94.48	94.59	95.40	95.90	---	96.99	97.91	96.69	95.91	95.35	94.59	94.88
30	94.59	94.70	95.76	95.87	---	97.11	97.89	96.79	95.91	95.28	94.63	94.94
31	94.46	---	96.13	95.84	---	97.25	---	96.80	---	95.29	94.63	---
MEAN	94.76	94.60	95.18	96.26	95.63	96.93	97.81	97.20	96.18	95.67	94.94	94.77
MAX	95.07	95.11	96.13	96.58	96.44	97.31	98.11	97.76	96.62	95.92	95.32	94.94
MIN	94.46	94.35	94.76	95.84	95.36	96.53	97.39	96.68	95.84	95.28	94.59	94.57

CAL YR 1984 MEAN 96.80 MAX 99.60 MIN 94.35
WTR YR 1985 MEAN 95.83 MAX 98.11 MIN 94.35

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), 1983-85 (b).
MINOR ELEMENTS DATA: 1974-85 (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), 1983-85 (b).
BIOLOGICAL DATA:
Bacteria--1974 (a), 1975-82 (c), 1983-85 (b).
Phytoplankton--1974 (a), 1975-78 (c), 1979 (b), 1980-81 (c).
Periphyton--1975 (c), 1976-80 (b).
SEDIMENT DATA: 1975-82 (c), 1983-85 (b).

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 17...	1030	145	7.4	12.5	1.0	770	10.8	100	K5	<1
APR 18...	1000	148	7.2	3.0	1.1	765	12.0	89	K2	<1
MAY 16...	1000	135	8.0	11.5	6.0	760	11.0	101	<1	<1
JUL 31...	0830	141	7.9	22.0	1.4	770	8.4	95	K13	K3

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L 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, CARBONATE IT-FLD (MG/L - CACO3)	BICARBONATE IT-FLD (MG/L AS HCO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 17...	59	9	17	4.1	6.2	1.3	51	61	16	9.5
APR 18...	59	10	17	4.0	6.1	1.1	49	60	14	9.8
MAY 16...	59	6	17	3.9	5.8	1.1	52	64	14	8.4
JUL 31...	59	10	17	4.1	6.7	1.2	50	60	13	9.3

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + 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)
OCT 17...	.20	1.0	93	86	<.10	<.010	.30	.050	.010	.050
APR 18...	.20	1.2	89	83	.13	<.010	.20	.030	.030	.020
MAY 16...	<.10	1.0	91	83	.87	.050	.50	<.010	<.010	<.010
JUL 31...	<.10	.9	86	82	<.10	.020	.40	<.010	<.010	<.010

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 1984 TO SEPTEMBER 1985

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)
OCT										
17...	20	<1	11	<.5	<1	<1	<3	2	6	3
APR										
18...	10	<1	10	<.5	<1	<1	<3	<1	9	1
MAY										
16...	20	<1	9	<.5	<1	<1	<3	1	11	<1
JUL										
31...	<10	1	9	<.5	<1	<1	<3	1	13	1

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT										
17...	<4	3	.1	<10	2	<1	<1	81	<6	28
APR										
18...	<4	2	.1	<10	3	<1	<1	82	<6	10
MAY										
16...	<4	2	<.1	<10	2	<1	<1	80	<6	6
JUL										
31...	<4	2	.1	<10	1	<1	<1	82	<6	<3

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SAMPLING DEPTH (FEET)	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	BAROMETRIC PRESSURE (MM OF HG)
MAY										
16...	0920	275	1	12	137	8.0	11.0	11.0	100	760
16...	0921	275	5	12	137	7.9	11.0	11.2	102	760
16...	0922	275	10	12	136	7.8	11.0	11.1	101	760
16...	0930	550	1	22	135	8.0	11.0	11.0	100	760
16...	0931	550	5	22	135	8.0	11.0	11.1	101	760
16...	0932	550	10	22	135	8.0	11.0	11.1	101	760
16...	0933	550	15	22	135	8.0	11.0	11.1	101	760
16...	0934	550	20	22	135	7.9	11.0	11.4	104	760
16...	0940	825	1	25	135	8.0	11.5	11.0	101	760
16...	0941	825	5	25	135	8.0	11.5	11.0	101	760
16...	0942	825	10	25	135	8.0	11.5	11.0	101	760
16...	0943	825	15	25	135	8.0	11.0	11.1	101	760
16...	0944	825	20	25	135	7.9	11.0	11.3	103	760
16...	0945	825	25	25	134	7.8	11.0	11.6	105	760
16...	1001	1100	1	19	135	8.1	11.5	10.8	99	760
16...	1002	1100	5	19	135	8.0	11.5	10.8	99	760
16...	1003	1100	10	19	135	8.0	11.5	10.9	100	760
16...	1004	1100	15	19	135	8.0	11.5	11.0	101	760
16...	1005	1100	20	19	135	8.0	11.5	11.0	101	760
16...	1010	1380	1	15	135	8.0	12.0	10.6	99	760
16...	1011	1380	5	15	135	8.0	12.0	10.7	100	760
16...	1012	1380	10	15	135	8.0	12.0	10.9	101	760
16...	1013	1380	15	15	135	8.0	11.5	11.3	104	760

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT				MAY			
17...	1030	7	56	16...	1000	2	95
APR				JUL			
18...	1000	6	45	31...	0830	1	78

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, 9.79 ft May 7, affected by seiche; minimum gage height, 6.81 ft Nov. 4, 5, affected by seiche.

GAGE HEIGHT (FEET) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.20	6.90	7.97	9.33	8.48	8.31	8.62	9.47	9.40	9.21	9.24	8.57
2	7.25	6.90	8.02	9.45	8.42	8.41	8.63	9.47	9.38	9.19	9.18	8.56
3	7.22	6.90	8.05	9.52	8.35	8.48	8.60	9.53	9.37	9.17	9.12	8.56
4	7.28	6.85	8.12	9.55	8.28	8.53	8.56	9.54	9.35	9.17	9.06	8.60
5	7.30	6.92	8.15	9.56	8.22	8.57	8.55	9.57	9.32	9.14	9.02	8.63
6	7.28	7.03	8.23	9.55	8.17	8.51	8.61	9.63	9.40	9.14	8.99	8.62
7	7.24	7.09	8.26	9.55	8.10	8.42	8.73	9.67	9.41	9.21	8.94	8.60
8	7.24	7.09	8.25	9.54	8.03	8.35	8.83	9.73	9.43	9.25	8.96	8.62
9	7.25	7.09	8.30	9.51	7.97	8.26	8.88	9.59	9.46	9.25	8.95	8.60
10	7.23	7.11	8.33	9.48	7.91	8.18	8.86	9.55	9.51	9.24	8.92	8.59
11	7.22	7.15	8.37	9.44	7.84	8.11	8.83	9.52	9.48	9.24	8.90	8.58
12	7.22	7.25	8.38	9.40	7.78	8.11	8.77	9.38	9.48	9.19	8.90	8.51
13	7.21	7.40	8.43	9.35	7.74	8.15	8.72	9.34	9.51	9.17	8.84	8.47
14	7.20	7.54	8.49	9.29	7.66	8.20	8.65	9.38	9.57	9.13	8.81	8.45
15	7.19	7.51	8.52	9.24	7.61	8.22	8.61	9.34	9.58	9.16	8.80	8.41
16	7.17	7.54	8.52	9.19	7.57	8.20	8.67	9.31	9.56	9.24	8.79	8.38
17	7.17	7.63	8.56	9.16	7.52	8.18	8.88	9.31	9.55	9.29	8.76	8.35
18	7.15	7.66	8.65	9.12	7.47	8.12	8.96	9.40	9.55	9.30	8.71	8.33
19	7.13	7.72	8.69	9.07	7.44	8.05	9.03	9.50	9.56	9.28	8.63	8.31
20	7.12	7.74	8.70	9.02	7.40	8.01	9.05	9.53	9.56	9.29	8.64	8.29
21	7.09	7.75	8.69	8.98	7.38	7.93	9.08	9.54	9.52	9.25	8.62	8.27
22	7.09	7.75	8.69	8.93	7.38	7.91	9.10	9.48	9.45	9.25	8.60	8.23
23	7.08	7.74	8.66	8.89	7.40	7.91	9.14	9.45	9.40	9.23	8.56	8.19
24	7.05	7.78	8.62	8.86	7.53	7.89	9.14	9.44	9.41	9.17	8.52	8.17
25	7.03	7.79	8.62	8.82	7.76	7.86	9.14	9.43	9.37	9.12	8.54	8.19
26	7.04	7.80	8.58	8.78	7.96	7.83	9.16	9.41	9.34	9.12	8.53	8.14
27	7.02	7.81	8.54	8.73	8.14	7.82	9.23	9.41	9.30	9.15	8.53	8.19
28	6.98	7.82	8.52	8.69	8.25	7.91	9.27	9.49	9.26	9.10	8.53	8.23
29	7.01	7.88	8.67	8.64	---	8.13	9.33	9.49	9.22	9.06	8.50	8.22
30	6.97	7.92	8.96	8.58	---	8.37	9.38	9.44	9.23	9.20	8.51	8.21
31	6.96	---	9.17	8.54	---	8.51	---	9.39	---	9.17	8.59	---
MEAN	7.15	7.44	8.47	9.15	7.85	8.18	8.90	9.48	9.43	9.20	8.78	8.40
MAX	7.30	7.92	9.17	9.56	8.48	8.57	9.38	9.73	9.58	9.30	9.24	8.63
MIN	6.96	6.85	7.97	8.54	7.38	7.82	8.55	9.31	9.22	9.06	8.50	8.14

CAL YR 1984 MEAN 8.40 MAX 10.56 MIN 6.85
WTR YR 1985 MEAN 8.54 MAX 9.73 MIN 6.85

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. 5 to Feb. 25, Mar. 2-13, 16-27. Records good except for estimated daily discharges and shifting control, Oct. 4 to Nov. 5, which are fair. Occasional diurnal fluctuation at low flow by mill upstream; greater regulation prior to 1960.

AVERAGE DISCHARGE.--34 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)
Dec. 29	2400	*1,500	*5.88				

Minimum discharge, 27 ft^3/s Aug. 24, 25, Sept. 23, 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	50	172	560	72	389	643	219	116	73	62	107
2	44	50	155	430	70	380	441	196	117	67	64	72
3	115	53	126	340	70	290	329	175	103	64	54	56
4	217	54	106	270	72	210	289	164	89	64	45	62
5	188	139	94	240	70	190	277	174	80	62	40	54
6	115	429	85	210	70	185	559	279	115	63	36	51
7	80	321	90	190	70	170	744	278	170	68	34	59
8	67	173	95	170	70	170	665	249	140	70	33	60
9	62	106	100	160	70	165	603	197	150	83	31	49
10	58	95	100	150	68	165	454	167	108	68	30	43
11	55	101	105	140	68	170	362	156	90	60	30	42
12	51	209	115	125	70	250	339	148	127	55	29	44
13	48	382	140	120	72	495	318	152	230	51	31	42
14	46	262	200	110	84	446	291	161	322	48	32	38
15	44	174	160	105	105	382	414	136	230	51	31	37
16	43	160	145	100	100	320	872	123	143	87	34	35
17	41	190	170	92	86	260	1020	134	118	145	33	33
18	40	154	235	88	76	210	807	532	153	82	32	32
19	40	127	190	86	70	180	871	589	233	62	29	31
20	42	108	150	84	70	170	709	398	158	54	28	30
21	44	99	130	80	68	160	688	249	113	50	28	29
22	54	95	125	80	70	140	692	187	92	46	29	28
23	60	85	120	78	100	125	657	155	81	42	28	28
24	55	95	110	76	410	135	597	134	83	39	27	29
25	51	91	100	76	770	145	524	122	108	37	30	30
26	51	91	90	76	754	135	456	117	109	37	32	34
27	57	93	88	76	562	165	403	147	98	41	40	44
28	64	102	90	76	473	637	340	328	87	42	58	109
29	60	191	740	74	---	1030	290	244	83	40	59	127
30	56	226	1100	74	---	992	253	156	80	51	50	74
31	53	---	740	72	---	794	---	124	---	54	83	---
TOTAL	2038	4505	6166	4608	4710	9655	15907	6590	3926	1856	1202	1509
MEAN	65.7	150	199	149	168	311	530	213	131	59.9	38.8	50.3
MAX	217	429	1100	560	770	1030	1020	589	322	145	83	127
MIN	37	50	85	72	68	125	253	117	80	37	27	28
CFSM	.54	1.23	1.63	1.22	1.38	2.55	4.34	1.75	1.07	.49	.32	.41
IN.	.62	1.37	1.88	1.41	1.44	2.94	4.85	2.01	1.20	.57	.37	.46

CAL YR 1984 TOTAL 68398 MEAN 188 MAX 1460 MIN 30 CFSM 1.53 IN. 20.85
WTR YR 1985 TOTAL 62672 MEAN 172 MAX 1100 MIN 27 CFSM 1.41 IN. 19.11

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 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	BARO-METRIC PRES-SURE (MM OF HG)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
16...	1000	46	200	--	--	9.0	--	--	--	--	--
NOV											
28...	0930	97	150	--	--	1.0	--	--	--	--	--
28...	1230	96	195	738	7.7	1.5	1.5	14.2	105	80	63
JAN											
15...	1045	105	158	--	--	0.0	--	--	--	--	--
30...	1130	--	220	748	7.4	0.0	0.5	12.0	84	K16	K5
FEB											
15...	0915	105	120	--	--	0.0	--	--	--	--	--
MAR											
28...	1330	722	66	--	--	1.5	--	--	--	--	--
APR											
03...	1245	324	145	733	7.7	2.0	1.0	13.3	100	48	79
MAY											
09...	0830	195	85	--	--	6.5	--	--	--	--	--
29...	1300	227	155	745	7.7	14.5	1.1	11.5	116	830	170
JUN											
27...	1045	94	112	--	--	14.0	--	--	--	--	--
AUG											
06...	1215	34	200	--	--	22.0	--	--	--	--	--
06...	1350	34	255	748	8.4	21.5	1.0	9.7	112	170	800
SEP											
12...	0930	42	220	--	--	13.0	--	--	--	--	--
18...	1130	29	255	751	8.3	13.5	0.6	10.4	101	53	66

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV										
28...	84	84	27	4.1	3.5	8	0.2	0.9	71	13
JAN										
30...	98	98	32	4.5	3.5	7	0.2	0.8	83	13
APR										
03...	62	62	20	2.8	2.7	9	0.2	0.8	51	9.5
MAY										
29...	68	68	22	3.1	2.9	8	0.2	0.7	61	9.1
AUG										
06...	110	111	35	5.7	4.0	7	0.2	1.2	101	11
SEP										
18...	120	116	36	6.2	4.5	8	0.2	1.1	101	14

K Results based on colony count outside the acceptance range (non-ideal colony count).

04296000 BLACK RIVER AT COVENTRY, VT.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV										
28...	6.0	<0.1	5.9	105	100	0.36	<0.01	0.01	0.2	0.01
JAN										
30...	6.2	<0.1	6.7	137	120	0.50	0.09	0.12	<0.1	0.02
APR										
03...	5.2	<0.1	5.1	88	77	1.00	0.14	0.18	1.6	0.03
MAY										
29...	4.0	<0.1	4.1	101	83	0.15	0.02	0.03	1.1	<0.01
AUG										
06...	6.8	<0.1	4.1	146	130	0.12	0.02	0.03	0.5	<0.01
SEP										
18...	7.0	<0.1	4.1	143	130	0.17	0.22	0.28	0.4	0.05

DATE	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)
NOV										
28...	--	<0.01	<0.01	--	--	--	--	<1	11	<1
JAN										
30...	--	<0.01	0.01	0.03	--	--	--	--	--	--
APR										
03...	--	<0.01	<0.01	--	--	--	--	1	11	<1
MAY										
29...	--	<0.01	<0.01	--	--	--	--	<1	11	<1
AUG										
06...	--	<0.01	<0.01	--	--	--	--	1	8	<1
SEP										
18...	0.15	0.02	0.04	0.12	--	--	--	2	11	1

DATE	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)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
NOV										
28...	2	<3	2	190	3	40	<0.1	1	<1	26
APR										
03...	<1	<3	2	67	3	24	<0.1	2	<1	14
MAY										
29...	6	<3	2	140	1	21	0.3	2	<1	14
AUG										
06...	<1	<3	4	50	<1	45	0.3	3	<1	6
SEP										
18...	<1	<3	3	38	4	39	<0.1	1	<1	<3

< 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.--66 years (water years 1910-19, 1921, 1923-24, 1929-35, 1939-85), 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, 751 ft^3/s Apr. 27; minimum daily, 18 ft^3/s July 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	75	106	388	51	376	429	657	190	153	37	37
2	63	67	77	388	78	382	434	612	151	120	49	44
3	27	36	175	389	85	382	436	572	236	120	37	37
4	61	31	214	357	121	366	434	543	198	107	36	68
5	55	62	138	265	104	346	431	521	168	107	51	37
6	96	46	149	213	96	214	435	504	184	82	68	126
7	49	49	124	263	114	250	432	486	160	126	75	76
8	51	88	93	252	130	254	432	464	169	247	131	75
9	52	103	78	190	81	209	434	431	125	260	96	38
10	60	157	125	171	48	186	438	440	45	18	52	122
11	109	148	125	191	50	248	437	448	34	54	78	125
12	90	157	136	131	58	270	434	444	273	65	72	67
13	42	190	154	95	90	382	431	409	394	66	180	67
14	44	160	139	126	117	315	430	380	278	52	36	50
15	53	171	80	165	107	378	323	342	151	147	31	51
16	71	154	95	147	47	326	333	261	141	245	38	53
17	57	151	178	131	48	286	432	246	290	242	43	48
18	74	151	219	116	110	276	438	299	287	240	51	52
19	52	155	280	66	122	231	455	437	266	171	43	51
20	47	137	142	67	92	300	632	433	363	100	36	36
21	48	115	142	181	116	215	679	397	243	67	37	34
22	62	105	108	118	151	251	657	315	170	146	45	35
23	60	117	132	93	91	284	652	317	185	118	35	22
24	55	99	133	91	238	218	675	373	262	117	36	83
25	49	61	109	94	313	250	713	290	194	83	37	66
26	51	76	157	88	382	221	730	288	171	69	36	67
27	33	73	162	89	376	240	751	286	177	52	40	35
28	35	87	158	97	382	290	738	290	150	37	35	37
29	48	139	125	112	---	379	742	260	134	65	67	53
30	40	122	275	122	---	382	703	258	107	69	39	39
31	43	---	353	106	---	400	---	243	---	250	37	---
TOTAL	1744	3282	4681	5302	3798	9107	15720	12246	5896	3795	1684	1731
MEAN	56.3	109	151	171	136	294	524	395	197	122	54.3	57.7
MAX	109	190	353	389	382	400	751	657	394	260	180	126
MIN	27	31	77	66	47	186	323	243	34	18	31	22

CAL YR 1984 TOTAL 87535 MEAN 239 MAX 1500 MIN 20
WTR YR 1985 TOTAL 68986 MEAN 189 MAX 751 MIN 18

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 1985

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	3-13-85	6.48	3,620
‡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	3-13-85	4.26	1,810
‡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† 1983-84	3-13-85	9.22	9,760
‡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†, 1978-84	3-15-85	4.40	1,110
‡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†, 1983-84	3-15-85	5.92	1,090
‡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†, 1979-84	3-13-85	4.71	962
		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†	3-13-85	4.82	1,010

† 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 1985

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Saco River basin						
01064254 Stony Brook	Saco River	Lat 44°04'41", long 71°14'19", Carroll County, 0.3 mi upstream from State Highway 302 bridge, 2.3 mi east of Bartlett, 3.6 mi southwest of Glen.	--	1984	11-21-84	0.52
					4-29-85	14.4
					5-29-85	1.4
01064254.1 Stony Brook	do	Lat 44°04'47", long 71°14'20", Carroll County, 0.2 mi upstream from State Highway 302 bridge, 2.3 mi east of Bartlett, 3.5 mi southwest of Glen.	--	1984	11-21-84	.38
					5-29-85	1.6
					6-27-85	.25
					8-12-85	.02
01064254.3 Stony Brook	do	Lat 44°05'00", long 71°14'19", Carroll County, 250 ft downstream from State Highway 302 bridge, 2.3 mi east of Bartlett, 3.4 mi southwest of Glen.	--	1984	11-21-84	0
					4-29-85	8.4
					5-29-85	0
					6-27-85	0
					8-12-85	0
01064390 East Branch Saco River	do	Lat 44°06'27", long 71°08'32", Carroll County, 0.5 mi northeast of Lower Bartlett, 0.6 mi northeast of State Highway 16A bridge over East Branch Saco River, 2.0 mi east of Glen.	37.8	1984	11-19-84	26.7
					4-23-85	307
					5-29-85	47.9
					6-27-85	16.9
					8-14-85	3.8
01064390.4 East Branch Saco River	do	Lat 44°06'03", long 71°08'59", Carroll County, at State Highway 16A bridge, 0.1 mi south of Lower Bartlett, 1.8 mi southeast of Glen.	--	1984	11-19-84	24.6
					5-29-85	42.8
					6-27-85	17.0
					8-14-85	4.8
01064390.7 East Branch Saco River	do	Lat 44°05'50", long 71°09'33", Carroll County, at railroad trestle, 0.4 mi upstream from mouth, 0.5 mi southwest of Lower Bartlett and State Highway 16A bridge over East Branch Saco River, 1.5 mi southeast of Glen.	--	1984	11-19-84	22.6
					5-29-85	45.6
					6-27-85	17.9
					8-14-85	3.9
01064390.9 East Branch Saco River	do	Lat 44°05'44", long 71°09'54", Carroll County, at mouth, 0.8 mi southwest of Lower Bartlett and State Highway 16A bridge over East Branch Saco River, 1.3 mi southeast of Glen.	--	1984	11-19-84	18.6
					5-29-85	38.8
					6-27-85	13.3
					7- 9-85	11.6
					8-14-85	.13
01064391 Saco River	Atlantic Ocean	Lat 44°05'39", long 71°09'53", Carroll County, 75 ft downstream from mouth of East Branch Saco River, 0.25 mi downstream from Saco River near Glen (01064350), 1.0 mi southwest of Lower Bartlett, 1.4 mi southeast of Glen.	--	1984	7- 9-85	167
					10- 3-85	213
01064391.4 Saco River tributary at Lower Bartlett	Saco River	Lat 44°05'54", long 71°08'57", Carroll County, at State Highway 16A bridge, 0.3 mi south of Lower Bartlett, 1.7 mi north of Intervale.	--	1984	11-19-84	.20
					4-23-85	1.55
					5-30-85	.20
					6-26-85	.02
					8-13-85	0
01064391.6 Saco River tributary at Lower Bartlett	do	Lat 44°05'47", long 71°08'55", Carroll County, 1000 ft downstream from State Highway 16A bridge, 0.5 mi south of Lower Bartlett, 1.5 mi north of Intervale.	--	1984	11-19-84	0
					4-23-85	0
					5-30-85	0
					6-26-85	0
					8-13-85	0
01064392 Saco River	Atlantic Ocean	Lat 44°03'58", long 71°08'50", Carroll County, 0.1 mi upstream from mouth of Unnamed tributary at Intervale, 0.7 mi southwest of Intervale, 1.3 mi northwest of North Conway.	--	1984	7- 9-85	197
					10- 3-85	237
01064392.5 North Branch Saco River tributary at Intervale	Saco River	Lat 44°05'00", long 71°08'21", Carroll County, at State Highway 16A culvert, 0.5 mi north of State Highway 16A junction with Hurricane Mountain Road, 0.6 mi north of Intervale, 1.5 mi south of Lower Bartlett.	--	1984	11-19-84	.18
					4-23-85	.99
					5-30-85	.45
					6-26-85	.16
					8-14-85	<.01

See footnotes at end of table.

Discharge measurements made at special study and miscellaneous sites during water year 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Saco River basin--Continued				
01064392.6 South Branch Saco River tributary at Intervale	Saco River	Lat 44°04'58", long 71°08'21", Carroll County, at State Highway 16A culvert, 0.4 mi north of State Highway 16A junction with Hurricane Mountain Road, 0.5 mi north of Intervale, 1.6 mi south of Lower Bartlett.	--	1984	11-19-84	0.16
					4-23-85	.55
					5-30-85	.21
					6-26-85	.09
					8-14-85	<.01
01064392.8 Saco River tributary at Intervale	do	Lat 44°04'59", long 71°08'24", Carroll County, 500 ft downstream from confluence of North and South Branches, 500 ft west of South Branch State Highway 16A culvert, 0.5 mi north of State Highway 16A junction with Hurricane Mountain Road, 0.6 mi north of Intervale 1.5 mi south of Lower Bartlett.	--	1984	11-19-84	.24
					4-23-85	1.55
					5-30-85	.62
					6-26-85	.20
					8-14-85	0
01064400.3 Lucy Brook	do	Lat 44°04'13", long 71°10'10", Carroll County, 0.6 mi northwest from Westside Road bridge, 1.5 mi west of Intervale, 2.4 mi northwest of North Conway.	--	1984	11-20-84	2.9
					4-24-85	27.8
					5-28-85	6.7
					6-25-85	2.4
					6-28-85	10.3
					8-12-85	.80
01064400.6 Lucy Brook	do	Lat 44°04'03", long 71°09'34", Carroll County, 100 ft upstream from Westside Road bridge, 1.1 mi southwest of Intervale, 1.9 mi northwest of North Conway.	--	1984	11- 6-84	1.6
					11-20-84	2.6
					4-24-85	23.3
					5-28-85	5.3
					6-25-85	2.0
					6-28-85	11.6
					8-12-85	.56
01064400.7 Lucy Brook	do	Lat 44°04'07", long 71°09'21", Carroll County, 0.2 mi east of Westside Road bridge, 0.9 mi southwest of Intervale, 1.8 mi northwest of North Conway.	--	1984	11- 6-84	.54
					11-20-84	2.2
					4-24-85	21.4
					5-28-85	4.6
					6-25-85	1.1
					6-28-85	8.8
					7-12-85	1.2
					8-12-85	0
01064400.8 Lucy Brook	do	Lat 44°04'06", long 71°09'14", Carroll County, 0.4 mi east of Westside Road bridge, 0.8 mi southwest of Intervale, 1.6 northwest of North Conway.	--	1984	11- 6-84	0
					11-20-84	1.2
					4-24-85	22.2
					5-28-85	4.2
					6-25-85	.1
					6-28-85	8.1
					8-12-85	0
01064402 Kearsarge Brook	do	Lat 44°02'41", long 71°07'31", Carroll County, at State Highway 16 and 302 culvert, 0.5 mi south of North Conway, 2.3 mi northwest of Redstone.	--	1984	11-19-84	6.0
					11-20-84	5.4
					4-24-85	41.6
					5-30-85	10.8
					6-28-85	10.1
					7- 8-85	3.7
					8-14-85	1.46
01064402.1 Kearsarge Brook	do	Lat 44°02'38", long 71°07'48", Carroll County, 0.3 mi west of State Highway 16 and 302 culvert, 0.6 mi south of North Conway, 2.5 mi northwest of Redstone.	--	1984	11-19-84	5.5
					11-20-84	4.7
					4-24-85	40.7
					5-30-85	10.4
					7- 8-85	3.2
					8-14-85	.46
01064402.2 Kearsarge Brook	do	Lat 44°02'35", long 71°07'59", Carroll County, at mouth, 0.4 mi west of State Highway 16 and 302 culvert, 0.7 mi south of North Conway, 2.5 mi northwest of Redstone.	--	1984	11-20-84	4.0
					4-24-85	39.3
					5-30-85	9.6
					7- 8-85	2.8
					8-14-85	.01
01064402.3 Saco River	Atlantic Ocean	Lat 44°02'17", long 71°08'22", Carroll County, downstream from Kearsarge Brook, 1.2 mi southwest of North Conway, 2.5 mi northwest of Redstone.	--	1984	7- 9-85	215
					10- 3-85	264
01064410 Saco River	do	Lat 44°00'32", long 71°07'00", Carroll County, upstream from Moat Brook, 0.9 mi southwest of Redstone, 3.1 mi south of North Conway.	--	1984	7- 9-85	204
					10- 4-85	264

See footnotes at end of table.

Discharge measurements made at special study and miscellaneous sites during water year 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Saco River basin--Continued				
01064490 Swift River	Saco River	Lat 43°59'07", long 71°07'12", Carroll County, at covered bridge, 100 ft downstream from Westside Road bridge, 500 ft upstream from mouth, 0.4 mi north of Conway, 2.3 mi southwest of Redstone.	-	1984	7- 9-85	97.6
01064500.5 Mason Brook	do	Lat 44°01'22", long 71°04'06", Carroll County, just downstream from major left bank tributary and right bank minor tributary, 0.4 mi northwest of power line crossing, 0.9 mi northwest of East Conway Road culvert, 1.8 mi east of Redstone, 2.0 mi north of Center Conway.	--	1984	4-30-85 5-30-85 6-26-85 8-15-85	3.37 1.71 .58 .28
01064500.6 Mason Brook	do	Lat 44°01'06", long 71°03'47", Carroll County, at power line crossing, 0.5 mi northwest of East Conway Road culvert, 1.6 mi north of Center Conway, 2.0 mi east of Redstone.	--	1984	11-20-84 4-30-85 5-30-85 6-26-85 8-15-85	.69 4.29 2.63 1.58 .62
01064500.8 Mason Brook	do	Lat 44°00'39", long 71°03'19", Carroll County, 700 ft southeast of East Conway Road culvert, 1.1 mi north of Center Conway, 2.4 mi east of Redstone.	--	1984	11-20-84 4-30-85 5-30-85 6-26-85 8-15-85	.72 4.36 2.70 1.58 .61
		Piscataqua River Basin				
01072940 Dube Brook	Oyster River	Lat 43°09'06", long 70°59'33", Strafford County, at bridge on Mill Road, 0.18 mi north of intersection with U.S. Route 4, 2.3 mi northeast of Lee, NH.			8-23-85 9-20-85	0.11 .68
01072945 Dube Brook	do	Lat 43°09'38", long 70°58'59", Strafford County, at culvert on Snell Road, 0.8 mi northwest of Lee Five Corners, 3.1 mi northeast of Lee, NH.			8-23-85 9-20-85	.30 1.98
01072990 Oyster River	Piscataqua River	Lat 43°09'30", long 70°57'54", Strafford County, at culvert on State Highway 155, 0.79 mi northeast of Lee Five Corners, 3.5 mi northeast of Lee, NH.			8-23-85	.46
01073050 Oyster River	do	Lat 43°07'45", long 70°56'09", Strafford County, at bridge on Mill Road, 0.6 mi southwest of intersection with Main Street, 0.6 mi southwest of Durham, NH.			8-23-85 9-20-85	.51 1.35
01073080 Johnson Creek	Oyster River	Lat 43°09'23", long 70°53'22", Strafford County, at junction on unnamed tributary with Johnson Creek, about 150 ft northeast of Madbury town line, 0.43 mi east of intersection of Freshet Road and Durham Road, 3 mi south of Dover, NH.			9-21-85	.20
01073090 Hoyt Pond Outlet	Gerrish Brook	Lat 43°09'32", long 70°54'11", Strafford County, at Hoyt Pond Outlet, 0.32 mi west of intersection of Freshet Road and Durham Road, 1.3 mi southeast of Madbury, NH.			9-21-85	.13
01073120 Lamprey River	Piscataqua River	Lat 43°10'04", long 71°13'49", Rockingham County, at culvert on unnamed road, 0.22 mi east of Coffeetown Road, 0.61 mi upstream from Freeses Pond, 2.5 mi north of Deerfield Center, NH.			10-16-84	.56
01073130 Lamprey River	do	Lat 43°09'44", long 71°14'03", Rockingham County, at culvert on Coffeetown Road, 0.61 mi upstream from Freeses Pond, 2.1 mi north of Deerfield Center, NH.			10-16-84 8-23-85 9-20-85	.74 .11 .30
01073140 Lamprey River	do	Lat 43°09'01", long 71°14'02", Rockingham County, at culvert on State Highway 107, 0.43 mi north of intersection with Mount Delight Road, 1.3 mi north of Deerfield Center, NH.			10-17-84	.75
01073170 Lamprey River	do	Lat 43°07'07", long 71°14'17", Rockingham County, at about 400 ft southeast of State Highway 107, 0.96 mi south of Deerfield Center, about 1400 ft upstream from the junction of Nicholls Brook, 1 mi south of Deerfield Center, NH.			10-17-84	1.28

Discharge measurements made at special study and miscellaneous sites during water year 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Piscataqua River Basin--Continued				
01073180 Nicholls Brook	Lamprey River	Lat 43°06'56", long 71°14'31", Rockingham County, at culvert on State Highway 107, 0.06 mi south of intersection with Gola Road, 1.2 mi south of Deerfield Center, NH			10-17-84	0.23
01073190 Lamprey River	Piscataqua River	Lat 43°06'35", long 71°14'29", Rockingham County, at culvert on State Highway 107, 0.17 mi north of intersection with State Highway 107A, 0.35 mi north of Deerfield Fairgrounds, 1.6 mi south of Deerfield Center, NH.			10-17-84 8-23-85 9-20-85	1.47 .20 .96
01073205 Hartford Brook	Lamprey River	Lat 43°06'29", long 71°15'46", Rockingham County, at culvert on Candia Road, 0.95 mi northeast of South Deerfield, 2.0 mi southwest of Deerfield Center, NH.			10-18-84	.43
01073210 Hartford Brook	do	Lat 43°06'11", long 71°14'49", Rockingham County, on culvert on State Highway 107A, near Deerfield Fairgrounds, 2 mi south of Deerfield Center, NH.		1976-79	10-19-84 8-23-85 9-20-85	.61 .25 .63
01073220 Lamprey River tributary	Lamprey River	Lat 43°06'15", long 71°14'14", Rockingham County, at culvert on State Highway 107, 2.0 mi south of Deerfield Center, NH.		1976, 1978-79	10-18-84	.09
01073260 Lamprey River	Piscataqua River	Lat 43°05'01", long 71°14'02", Rockingham County, at end of dirt road, about 900 ft southwest of State Highway 107, 0.65 mi northwest of Raymond town line, 3.4 mi south of Deerfield Center, NH.			10-19-84	3.17
01073300 Lamprey River	do	Lat 43°03'46", long 71°13'42", Rockingham County, at bridge on State Highway 101, 3.0 mi northeast of Raymond, NH.		1976-79	10-18-84 8-23-85 9-20-85	2.89 .91 3.58
01073305 North Branch River	Lamprey River	Lat 43°03'40", long 71°14'12", Rockingham County, at overcrossing of power lines, over river about 500 ft south of State Highway 101, 0.7 mi west of intersection with State Highway 107, 3.2 mi northwest of Raymond, NH.			10-19-84	1.03
01073308 Lamprey River	Piscataqua River	Lat 43°02'56", long 71°12'38", Rockingham County, at about 150 ft south of State Highway 101, 0.81 mi northwest of intersection with Langford Road, 1.6 mi northwest of Raymond, NH.			10-19-84	5.21
01073310 Lamprey River	do	Lat 43°02'28", long 71°12'08", Rockingham County, downstream side of bridge on Langford Road, east side of intersection with State Highway 101, 1 mi west of Raymond, NH.			8-23-85 9-20-85	1.73 7.99
01073320 Lamprey River	do	Lat 43°01'36", long 71°10'02", Rockingham County, upstream from bridge on State Highway 107, 0.46 mi south of intersection with State Highway 101, 1 mi southwest of Raymond, NH.			8-23-85 9-20-85	3.13 14.7
01073330 Lamprey River	do	Lat 43°01'20", long 71°09'05", Rockingham County, at bridge on Prescott Road, 200 ft west of Epping town line, 1.9 mi southwest of Raymond, NH.			8-23-85 9-20-85	3.26 15.7
01073390 Pawtuckaway River	Lamprey River	Lat 43°04'20", long 71°08'25", Rockingham County, at culvert on State Highway 156, 2.35 mi north of intersection with State Highway 101, 3.5 mi southwest of Nottingham, NH.			8-23-85	1.33
01073400 Lamprey River	Piscataqua River	Lat 43°02'17", long 71°04'17", Strafford County, at bridge about 700 ft upstream from bridge on State Highway 125, 0.1 mi east of Epping, NH.			8-23-85	7.55
01073430 Lamprey River	do	Lat 43°02'58", long 71°02'02", Rockingham County, near Camp Hedding, on town road, 2.2 mi northeast of Epping, NH.		1976-79	8-23-85	7.10

Discharge measurements made at special study and miscellaneous sites during water year 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Piscataqua River Basin--Continued				
010734535 North River	Lamprey River	Lat 43°09'47", long 71°06'41", Rockingham County, at culvert on Freeman Hall Road, 0.48 mi southwest of intersection with Garland Drive, 3.5 mi north of Nottingham, NH.			8-23-85 9-20-85	0 .27
01073470 Lamprey River	Piscataqua River	Lat 43°05'31", long 71°00'29", Strafford County, at bridge on State Highway 152, near Wadley Falls, 4 mi east of Newmarket, NH.		1976-79	8-23-85 9-20-85	8.02 137
01073473 Beaver Brook	Lamprey River	Lat 43°06'31", long 71°00'34", Strafford County, at culvert on Tuttle Road, 1.26 mi north of Wadley Falls, 1 mi south of Lee, NH.			8-23-85 9-20-85	.02 .05
01073484 Little River	do	Lat 43°06'40", long 71°00'45", Strafford County, at bridge on Tuttle Road, 4.5 mi northeast of Newmarket, NH.		1976-78	8-23-85 9-20-85	.86 8.49
010735435 Piscassic River	do	Lat 43°02'04", long, 70°59'51", Rockingham County, at culvert on Cuba Road, 0.32 mi south of intersection with Piscassic Road, 2.9 mi west of Newfields, NH.		1978	8-23-85 9-18-85	.32 2.75
01073545 Piscassic River	do	Lat 43°02'03", long 70°58'07", Rockingham County, below dam at outlet of Piscassic Ice Pond, near Piscassic Road, 1.5 mi west of Newfields, NH.		1976-78	9-18-85	3.19
01073548 Piscassic River	do	Lat 43°04'07", long 70°57'46", Rockingham County, at culvert on Newmarket Road, 1.5 mi southwest of Newmarket, NH.		1976-78	8-23-85 9-20-85	.31 2.70
010735485 Chapman Spring	Picassic River	Lat 43°04'43", long 70°58'01", Strafford County, at site of NMS 3, about 0.36 mi southeast of intersection of Lee Hook Road with State Highway 152, and about 0.80 mi northwest of intersection of Newmarket Road with State Highway 152, near Newmarket, NH.			9-21-85	.04
01073570 Exeter River	Piscataqua River	Lat 42°56'10", long 71°12'50", Rockingham County, at culvert on Village Road, 1.03 mi northwest of intersection with School Road, 1.4 mi west of Sandown, NH.			8-23-85 9-19-85	.29 1.37
01073573 Exeter River	do	Lat 42°56'26", long 71°10'56", Rockingham County, at bridge at outlet of Lily Pond, 0.48 mi south of intersection with Sargent Road, 0.9 mi north of Sandown, NH.			8-23-85 9-19-85	.24 2.84
01073575 Exeter River	do	Lat 42°59'49", long 71°10'36", Rockingham County, at bridge on Hanson Road, 0.18 mi south of State Highway 102, 2.7 mi south of Raymond, NH.			8-23-85 9-19-85	1.15 16.6
01073580 Exeter River	do	Lat 42°59'46", long 71°08'59", Rockingham County, at about 100 ft southwest of State Highway 107, 0.78 mi southeast of Raymond town line, 0.5 mi northwest of Fremont, NH.			9-19-85	18.1
01073582 Exeter River	do	Lat 42°58'37" long 71°08'04", Rockingham County, at about 100 ft downstream from bridge on Schribner Road, 0.64 mi southwest of intersection with State Highway 107, 0.76 mi north of intersection with South Road, 1 mi south of Fremont, NH.			8-23-85 9-19-85	3.44 18.0
01073583 Exeter River	do	Lat 42°58'02", long 71°07'16", Rockingham County, on east side of campground, on west side of State Highway 111, 0.77 mi west of intersection of State Highways 111 and 107, 2 mi southeast of Fremont, NH.			9-19-85	19.6
01073585 Exeter River	do	Lat 42°58'41", long 71°04'21", Rockingham County, at bridge of Former State Highway 125, 0.08 mi east of the junction of State Highways 125 and 111A, 0.1 mi west of Brentwood, NH.			8-23-85 9-19-85	.97 4.47

Discharge measurements made at special study and miscellaneous sites during water year 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Piscataqua River Basin--Continued						
01073587 Exeter River	Piscataqua River	Lat 42°59"04", long 71°02'19", Rockingham County, at bridge on Haigh Road, about 100 ft southwest of intersection with Rowell Road, about 1.43 mi due east of Swasey School, 1.7 mi east of Brentwood, NH.			8-23-85 9-19-85	3.20 23.1
01073590 Little River	Exeter River	Lat 42°57'42", long 71°02'28", Rockingham County, at culvert 0.85 mi east of State Game Farm, 1.22 mi east of intersection with State Highway 125, 1.9 mi southeast of Brentwood, NH.			9-19-85	2.05
01073593 Exeter River	Piscataqua River	Lat 42°58'11", long 71°00'04", Rockingham County, at bridge on Pickpocket Road, 0.63 mi south of intersection with Rowell Road on Exeter-Brentwood town line, 3.6 mi east of Brentwood, NH.			8-23-85 9-19-85	5.65 38.7
01073595 Exeter River	do	Lat 42°57'55", long 70°59'18", Rockingham County, at bridge on State Highway 111, 0.3 mi southwest of intersection with Pickpocket Road, 2.5 mi southwest of Exeter, NH.			8-23-85 9-19-85	6.85 35.0
01073610 Little River	Exeter River	Lat 42°58'19", long 70°57'33", Rockingham County, at culvert on Linden Street, 0.5 mi upstream from bridge on State Highway 108, 1 mi southwest of Exeter, NH.			9-19-85	2.71
Merrimack River basin						
††01075000 Pemigewasset River	Merrimack River	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‡, 1978-84	5-17-85	652
††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‡, 1978-84	5-17-85	203
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, 1984	5-17-85	421
01080500 Lake Winnipesaukee Outlet	Merrimack River	Lat 43°32'57", long 71°27'54", Belknap County, 100 ft above dam at outlet of Lake Winnipesaukee at Lakeport.	363	1933-83‡, 1984	12-13-83 1-23-84 1-30-84 3- 1-84 4- 7-84 5-23-84 6 -7-84 7- 3-84 7-24-84 8- 1-84 9-12-84 10-22-84 11- 7-84 12- 8-84 1- 7-85 1-22-85 3-13-85 4-16-85 5-16-85 5-31-85 7-31-85 9-30-85	2,280 918 679 1,860 2,110 1,120 2,890 758 286 291 278 261 358 344 656 547 897 230 238 234 232 250
01080930 Winnipesaukee River	do	Lat 43°28'18", long 71°32'01", Belknap County, at Lochmere Dam, at Lochmere, 0.8 mi southeast of East Tilton, 3.5 mi northeast of Tilton.	--	1984	5-16-85	295
††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‡, 1978-84	11-21-85	172

See footnotes at end of table.

Discharge measurements made at special study and miscellaneous sites during water year 1985--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Merrimack River basin--Continued						
††01091500 Piscataquog River	Merrimack River	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‡, 1979-84	11- 8-84 8-15-85	102 1,090
††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‡, 1979-84	11- 8-84 3-15-85	58.5 901
Connecticut River basin						
01129150 Indian Stream	Connecticut River	Lat 71°26'30", long 45°02'53", Coos County, at bridge on U.S. Route 3, 1000 ft above mouth and 2.0 mi west of Pittsburg.			8- 7-85	19.3
††01145000 Mascoma River	do	Lat 43°39'00", long 72°04'50", Grafton County, on right bank 45 ft downstream from Boston and Maine Railroad bridge, 0.9 mi east of West Canaan, 1.2 mi downstream from Indian River, 3.5 mi west of Canaan and at mile 19.3.	80.5	1939-78‡, 1979-84	6-10-85	27.9
01152010 Sugar River	do	Lat 43°23'10", long 72°23'16", Sullivan County, 1 mi below dam at outlet of Sunapee Lake at Sunapee.	45.5	1976, 1979-84	10-25-85	120

< Actual value is known to be less than the value shown.
†† Also a crest-stage partial record station.
‡ Operated as a continuous-record gaging station.

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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 1984					MAR 1985				
15...	0940	30.7	5.5	31	4...	1430	365	0.0	40
NOV					MAY				
26...	1240	57	0.0	42	9...	1220	641	5.0	26
JAN 1985					JUL				
16...	1315	92	1.0	40	18...	1000	290	17.5	31
01053500 ANDROSCOGGIN RIVER AT ERROL, NH (LAT 44 46 57 LONG 71 07 46)									
OCT 1984					MAR 1985				
15...	1130	1790	12.0	33	4...	1430	1300	0.5	34
NOV					MAY				
26...	1400	1300	0.0	36	9...	0950	1160	6.5	25
JAN 1985					JUL				
16...	1500	1370	1.0	34	18...	1215	1646	21.0	27
01054000 ANDROSCOGGIN RIVER NEAR GORHAM, NH (LAT 44 26 10 LONG 71 11 27)									
OCT 1984					MAR 1985				
15...	1300	2020	12.0	80	5...	0700	1780	0.5	88
NOV					MAY				
26...	1550	1670	1.5	81	9...	0710	2340	7.0	56
JAN 1985					JUL				
16...	1130	1700	1.0	85	18...	1530	1862	24.5	78
SACO RIVER BASIN									
01064300 ELLIS RIVER NEAR JACKSON, NH (LAT 44 13 12 LONG 071 15 00)									
JAN 1985									
29...	0830	8.8	0.0	--					
01064400 LUCY BROOK NEAR NORTH CONWAY, NH (LAT 44 04 10 LONG 071 10 30)									
JAN 1985									
28...	1530	3.0	0.0	23					
01064500 SACO RIVER AT CONWAY, NH (LAT 44 59 27 LONG 71 05 29)									
NOV 1984									
21...	1450	304	1.5	44					
JAN 1985									
11...	0850	307	1.0	45					
MAY									
30...	1235	521	16.5	38					
01065000 OSSIPEE RIVER AT EFFINGHAM FALLS, NH (LAT 43 47 44 LONG 071 03 36')									
MAR 1985									
20...	1100	1190	--	35					
PISCATAQUA RIVER BASIN									
01072100 SALMON FALLS RIVER AT MILTON, NH (LAT 43 24 50 LONG 070 59 15)									
APR 1985					MAR 1985				
15...	0805	61	--	51	11...	1000	248	--	55
01073000 OYSTER RIVER NEAR DURHAM, NH (LAT 43 08 55 LONG 070 57 56)									
MAR 1985					APR 1985				
11...	1300	34	--	107	15...	1045	12	--	114
01073600 DUDLEY BROOK NEAR EXETER, NH (LAT 42 59 37 LONG 071 01 24)									
MAR 1985									
21...	1000	7.6	--	145					
MERRIMACK RIVER BASIN									
01075000 PEMIGEWASSET RIVER AT WOODSTOCK, NH (LAT 43 58 34N LONG 071 40 48W)									
MAY 1985									
17...	1220	652	18.0	30					
01075800 STEVENS BROOK NEAR WENTWORTH, NH (LAT 43 50 12 LONG 071 53 07)									
OCT 1984					FEB 1985				
09...	1115	0.4	3.0	16	05...	1055	0.68	0.0	31
DEC					JUN				
26...	1115	2.6	0.0	--	13...	1230	0.03	12.0	34

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MERRIMACK RIVER BASIN--Continued

01076000 BAKER RIVER NEAR RUMNEY, NH (LAT 43 47 46N LONG 071 50 42W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
DEC 1984				
26...	1000	62	0.0	67

01076500 PEMIGEWASSET RIVER AT PLYMOUTH, NH (LAT 43 45 33 LONG 071 41 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
FEB 1985				
11...	1730	253	0.0	--
MAY				
30...	1345	903	17.0	49
JUN 1985				
25...	1030	598	18.0	60
AUG				
27...	1000	525	18.0	76

01077000 SQUAM RIVER AT ASHLAND, NH (LAT 43 42 19 LONG 071 37 49)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
JAN 1985				
29...	1220	61	1.0	32
MAY				
02...	1345	56	13.0	46
JUN 1985				
13...	1045	63	17.0	47

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)
DEC 1984				
28...	1230	63	0.0	--
FEB 1985				
05...	1315	35	0.0	54
SEP 1985				
09...	1330	58	18.0	56

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)
MAR 1985				
13...	1300	1220	--	63

01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH (LAT 42 51 45N LONG 071 57 35W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
APR 1985				
22...	1430	71	9.0	71

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 1984				
11...	1250	48	7.0	65
DEC				
18...	1530	46	1.0	60
JAN 1985				
28...	1545	21	0.0	39
MAR				
11...	1430	68	1.0	40
JUN 1985				
04...	1355	11	19.0	63
JUL				
22...	1440	8.2	21.0	38
AUG				
28...	1435	48	20.0	59

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)
MAR 1985				
19...	1240	1450	--	55

01085800 WEST BRANCH WARNER RIVER NEAR BRADFORD, NH (LAT 43 15 33 LONG 072 01 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
FEB 1985				
21...	1240	2.9	0.0	34
MAR				
13...	1030	70	0.0	22
MAY				
02...	1205	4.4	9.0	32
JUL				
01...	1315	4.5	15.0	33
JUN 1985				
05...	1245	1.7	14.0	36
JUL				
24...	0945	0.35	18.0	31
SEP				
06...	1220	88	14.5	28

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)
MAR 1985				
18...	1045	375	--	40

01089000 SOUCOOK RIVER NEAR CONCORD, NH (LAT 43 14 22 LONG 071 27 44)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
MAR 1985				
15...	1400	395	--	70
MAR 1985				
19...	1440	175	--	52

01090800 PISCATAQUOG RIVER BL EVERETT DAM, NR E WEARE, NH (LAT 43 05 29 LONG 071 39 36)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
MAR 1985				
19...	0915	290	--	47

01091500 PISCATAQUOG RIVER NEAR GOFFSTOWN, NH (LAT 43 00 58 LONG 071 33 03)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
MAR 1985				
15...	1100	1090	--	55

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									
01092000 MERRIMACK R NR GOFFS FALLS, BELOW MANCHESTER, NH (LAT 42 56 54 LONG 071 27 52)									
MAR 1985									
21...	0700	7040	--	65					
01093800 STONY BROOK TRIBUTARY NEAR TEMPLE, NH (LAT 42 51 36 LONG 071 50 00)									
NOV 1984					APR 1985				
04...	1030	3.9	2.0	35	22...	1045	4.1	9.0	24
DEC					JUN				
18...	1230	5.7	0.0	28	04...	1130	0.95	13.0	26
JAN 1985					JUL				
28...	1135	0.89	0.0	22	22...	1205	0.53	15.0	21
FEB					AUG				
11...	1200	4.7	0.0	20	26...	1515	2.3	15.0	--
CONNECTICUT RIVER BASIN									
01127880 BIG BROOK NEAR PITTSBURG, NH (LAT 45 08 06 LONG 071 12 23)									
JAN 1985					MAR 1985				
08...	1340	7.4	0.0	47	19...	1500	8.9	0.5	43
FEB					MAY				
07...	1150	3.7	0.0	50	01...	1050	67	6.0	27
01129200 CONNECTICUT R BL INDIAN STREAM NR PITTSBURG, NH (LAT 45 02 25 LONG 071 26 37)									
JUN 1985					SEP 1985				
11...	1330	202	15.0	50	05...	1020	956	13.0	47
01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH (LAT 44 44 56 LONG 071 37 50)									
FEB 1985					MAR 1985				
06...	1500	5910	0.0	--	19...	1130	3420	0.0	46
01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH (LAT 44 37 30 LONG 071 28 10)									
OCT 1984					JUN 1985				
17...	1230	81	5.0	40	11...	1130	231	17.0	64
JAN 1985					SEP				
04...	1130	331	0.0	41	04...	1140	146	15.0	48
FEB									
08...	1400	67	0.0	--					
01131500 CONNECTICUT RIVER NEAR DALTON, NH (LAT 44 24 36 LONG 071 43 16)									
JAN 1985					FEB 1985				
04...	1245	2630	0.5	--	08...	1530	1220	0.0	--
01134500 MOOSE RIVER AT VICTORY, VT (LAT 44 30 42 LONG 071 50 13)									
OCT 1984					MAY 1985				
17...	1045	20	9.0	38	10...	1215	177	9.0	40
NOV					JUN				
26...	1045	45	0.0	34	28...	1015	36	15.0	55
JAN 1985					AUG				
17...	0945	41	0.0	18	09...	1415	24	24.0	52
FEB					SEP				
20...	1015	31	0.0	--	16...	1100	20	13.0	45
APR									
01...	1245	294	0.0	26					
01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT (LAT 44 21 56 LONG 072 02 23)									
OCT 1984					MAY 1985				
17...	1300	144	13.0	198	10...	0930	1000	8.5	98
NOV					JUN				
26...	1345	450	1.5	165	28...	1300	279	16.0	115
JAN 1985					AUG				
17...	1315	550	0.0	120	09...	1030	26	24.0	225
FEB					SEP				
15...	1330	450	0.0	175	16...	0900	63	13.0	210
APR									
01...	0930	1420	1.0	89					
01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH (LAT 44 16 08 LONG 071 37 52)									
OCT 1984					JUN 1985				
05...	1030	158	4.0	33	14...	1115	141	11.0	85
JAN 1985					SEP				
03...	1200	133	0.0	--	06...	1030	56	17.0	48
FEB									
11...	1230	59	0.0	35					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

CONNECTICUT RIVER BASIN--Continued

01139000 WELLS RIVER AT WELLS RIVER, VT (LAT 44 09 03 LONG 072 03 55)

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 1984					MAY 1985				
02...	1000	64	8.5	125	01...	0830	178	10.5	85
NOV					JUN				
16...	0800	96	4.0	110	17...	0855	366	14.0	105
JAN 1985					JUL				
04...	1300	290	0.0	75	26...	1130	17	23.0	120
FEB					AUG				
05...	1100	46	0.0	25	30...	0935	61	17.0	100
MAR									
15...	0830	232	1.0	100					

01139800 EAST ORANGE BRANCH AT EAST ORANGE, VT (LAT 44 05 34 LONG 072 20 10)

OCT 1984					APR 1985				
02...	1115	36	8.0	145	23...	1230	43	9.0	135
NOV					JUN				
06...	1115	9.6	6.0	190	11...	0915	9.5	11.0	117
DEC					JUL				
20...	1030	7.3	0.5	55	30...	1430	2.9	21.0	120
FEB 1985					SEP				
04...	1345	3.9	0.0	70	03...	1215	3.3	17.0	110
MAR									
15...	0950	1.0	13.0	100					

01141500 OMPOMPANOOSUC RIVER AT UNION VILLAGE, VT (LAT 43 47 23 LONG 072 15 19)

OCT 1984					APR 1985				
09...	0930	40	9.0	180	30...	1700	199	14.0	110
NOV					JUN				
08...	1030	56	3.5	185	12...	1200	70	17.5	175
DEC					JUL				
26...	1100	106	0.5	135	25...	1515	19	29.0	140
FEB 1985					AUG				
05...	1315	51	0.0	178	29...	1045	22	18.0	200
MAR									
18...	1005	266	0.5	80					

01141800 MINK BROOK NEAR ETNA, NH (LAT 43 42 08 LONG 072 11 15)

DEC 1984					JUN 1985				
27...	1145	3.9	0.0	--	10...	1215	1.6	15.5	87
FEB 1985					SEP				
04...	1255	2.1	0.0	71	03...	1130	0.44	14.0	120
MAR									
18...	1135	11	0.5	74					

01142500 AYERS BROOK AT RANDOLPH, VT (LAT 43 56 04 LONG 072 39 30)

OCT 1984					APR 1985				
03...	1200	30	8.0	170	24...	0815	76	6.0	135
29...	1330	12	14.5	98	JUN				
NOV					11...	1115	19	14.5	117
06...	1315	23	8.0	189	JUL				
DEC					27...	1445	8.6	22.5	125
20...	1245	28	0.5	160	SEP				
FEB 1985					02...	1420	14	17.0	120
06...	1330	21	0.0	165					
MAR									
18...	0845	73	0.0	85					

01144000 WHITE RIVER AT WEST HARTFORD, VT (LAT 43 42 51 LONG 072 25 07)

NOV 1984					APR 1985				
08...	1300	560	5.0	95	22...	1400	2860	10.0	74
JAN 1985					JUN				
04...	1130	1200	0.0	85	12...	1015	413	13.5	160
FEB					JUL				
01...	1045	363	0.0	90	25...	1245	161	22.0	120
MAR					AUG				
18...	1120	1300	1.0	85	29...	1155	210	20.0	170

01144500 CONNECTICUT RIVER AT WEST LEBANON, NH (LAT 43 38 47 LONG 072 18 46)

NOV 1984					JUN 1985				
15...	1345	10100	8.0	110	12...	1500	5800	17.0	75
FEB 1985					JUL				
01...	1245	3200	0.0	100	26...	0730	1100	23.0	90
MAR					AUG				
14...	0745	15400	1.0	110	29...	1330	9970	23.0	95
APR									
26...	0930	19900	10.0	110					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

CONNECTICUT RIVER BASIN--Continued

01145000 MASCOMA RIVER AT WEST CANAAN, NH (LAT 43 39 00N LONG 072 04 50W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
JUN 1985				
10...	1400	28	17.0	50

01150500 MASCOMA RIVER AT MASCOMA, NH (LAT 43 39 01N LONG 072 11 05W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
FEB 1985				
04...	0930	62	2.0	55
APR				
29...	1130	285	8.0	47
JUN 1985				
10...	1045	60	18.0	51
SEP				
03...	1030	16	19.0	57

01150900 OTTAUQUECHEE RIVER NEAR WEST BRIDGEWATER, VT (LAT 43 37 20 LONG 72 45 34)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
NOV 1984				
13...	1100	73	5.5	65
JAN 1985				
3...	1145	98	0.5	80
31...	1515	14	0.0	106
MAR				
12...	1030	88	1.5	87
APR				
24...	1530	93	9.0	80
JUN 1985				
13...	0915	40	11.5	78
JUL				
24...	1400	8.0	19.5	115
SEP				
4...	0745	9.0	17.0	110

01151500 OTTAUQUECHEE RIVER AT NORTH HARTLAND, VT (LAT 43 36 09 LONG 072 21 17)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1984				
09...	1130	21	11.5	172
DEC				
26...	1330	187	0.0	115
FEB 1985				
01...	0815	135	0.0	--
MAR				
18...	1040	357	0.5	65
APR 1985				
25...	1540	413	12.0	105
JUN				
12...	1400	158	17.5	110
JUL				
26...	0820	28	23.0	190
AUG				
29...	1240	22	22.0	180

01152500 SUGAR RIVER AT WEST CLAREMONT, NH (LAT 43 23 15 LONG 072 21 45)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1984				
09...	1620	80	8.0	81
NOV				
13...	1430	341	5.0	75
DEC				
17...	1445	216	1.0	54
JAN 1985				
29...	1100	131	0.0	103
MAR				
13...	1400	1980	0.0	57
APR 1985				
23...	1030	423	9.0	77
JUN				
05...	1530	94	15.0	118
JUL				
24...	1310	48	21.0	110
SEP				
05...	1425	55	22.0	131

01153000 BLACK RIVER AT NORTH SPRINGFIELD, VT (LAT 43 20 00 LONG 072 30 55)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
NOV 1984				
15...	1115	182	2.0	--
JAN 1985				
30...	1100	81	0.0	110
MAR				
14...	1430	1040	1.0	60
20...	1450	430	0.0	64
APR				
24...	1400	394	14.0	79
JUN 1985				
06...	1215	47	15.0	128
JUL				
25...	1120	30	22.0	86
SEP				
17...	1540	76	16.5	120

01153500 WILLIAMS RIVER AT BROCKWAYS MILLS, VT (LAT 43 12 31 LONG 072 31 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
NOV 1984				
27...	1545	48	2.0	79
FEB 1985				
12...	1410	31	0.0	98
MAY				
02...	1530	91	9.0	89
JUN 1985				
06...	1445	71	14.0	106
MAR				
22...	1600	247	2.0	86
JUL				
25...	1310	12	20.0	80

01155500 WEST RIVER AT JAMAICA, VT (LAT 43 06 32 LONG 072 46 33)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1984				
03...	1520	48	10.0	50
NOV				
20...	1630	158	1.0	46
FEB 1985				
11...	1600	72	0.0	59
MAR				
19...	1545	216	0.0	52
APR 1985				
30...	1500	144	11.0	43
JUN				
10...	1530	78	15.0	60
JUL				
29...	1310	57	20.0	77
SEP				
12...	1205	211	15.0	58

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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									
01156000 WEST RIVER AT NEWFANE, VT (LAT 42 59 43 LONG 072 38 13)									
DEC 1984					JUN 1985				
20...	1615	550	0.0	53	10...	1220	126	14.0	70
FEB 1985					JUL				
11...	1145	144	0.0	62	29...	1035	72	20.0	50
MAR					SEP				
19...	1345	502	0.0	57	10...	1705	301	16.5	61
APR									
30...	1030	271	11.0	53					
01158000 ASHUELOT RIVER BL SURRY MT DAM, NR KEENE, NH (LAT 42 59 40 LONG 072 18 40)									
FEB 1985					JUN 1985				
14...	1415	181	0.0	48	03...	0940	58	18.0	42
MAR					JUL				
15...	1200	799	1.0	34	23...	1050	25	19.0	44
APR					SEP				
23...	1000	158	9.0	40	04...	1405	16	18.0	47
01158600 OTTER BROOK BELOW OTTER BROOK DAM, NR KEENE, NH (T 42 56 45 LONG 072 14 14)									
OCT 1984					JUN 1985				
11...	1430	11	9.0	40	04...	1535	19	18.0	61
JAN 1985					JUL				
07...	1450	59	0.0	45	23...	1445	6.9	22.0	42
APR					AUG				
23...	1530	48	10.0	41	30...	1410	7.5	19.5	59
01161000 ASHUELOT RIVER AT HINSDALE, NH (LAT 42 47 07 LONG 072 29 12)									
JAN 1985					JUN 1985				
02...	1530	962	0.0	49	03...	1520	179	12.0	71
MAR					JUL				
22...	1310	884	2.0	72	23...	1325	99	22.0	87
APR					SEP				
23...	1330	445	10.0	84	09...	1615	536	19.0	100
HUDSON RIVER BASIN									
01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT (LAT 42 54 47 LONG 073 15 25)									
MAR 1985					FEB 1985				
20...	0745	216	1.0	220	12...	0930	80	0.0	260
APR					JUN				
30...	1630	147	12.0	175	11...	0900	81	14.0	240
JUL					SEP				
30...	0820	62	21.0	280	11...	1125	123	14.0	170
ST. LAWRENCE RIVER BASIN									
04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT (LAT 43 37 40 LONG 073 18 50)									
JAN 1985					JUN 1985				
04...	0905	539	0.0	90	13...	1150	190	14.5	105
31...	1145	25	0.0	180	JUL				
MAR					25...	0815	9.2	22.0	125
13...	1130	1720	1.5	65	SEP				
APR					03...	1535	26	17.5	105
25...	0745	100	11.5	158					
04280350 METAWEE RIVER NEAR PAWLET, VT (LAT 43 22 18 LONG 73 12 59)									
OCT 1984					MAR 1985				
3...	1230	50	9.0	--	20	1100	167	0.0	34
NOV					MAY				
15...	1445	116	1.0	178	1...	1005	77	10.0	190
DEC					JUN				
20...	1345	125	0.0	180	11...	1125	33	15.0	220
JAN 1985					JUL				
4...	1345	207	0.0	154	30...	1140	11	21.0	200
30...	1450	62	0.0	174					
04282000 OTTER CREEK AT CENTER RUTLAND, VT (LAT 43 36 13 LONG 073 00 49)									
OCT 1984					JUN 1985				
04...	1400	476	10.0	165	13...	1030	402	14.0	107
JAN 1985					JUL				
28...	1300	325	0.0	65	25...	0930	61	21.0	130
31...	1330	214	0.0	178	SEP				
MAR					04...	0815	136	17.5	100
13...	1220	2040	1.5	85					
APR									
25...	0915	499	10.5	94					

ST. LAWRENCE RIVER BASIN--Continued

04282500 OTTER CREEK AT MIDDLEBURY, VT (LAT 44 00 47 LONG 073 10 06)

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 1984					APR 1985				
04...	1215	942	11.0	155	30...	1300	754	13.5	110
NOV					JUN				
14...	1130	1440	3.5	65	13...	1315	679	14.5	105
JAN 1985					JUL				
02...	1130	2250	0.5	95	24...	1115	184	22.0	120
31...	0930	494	0.0	90	SEP				
MAR					03...	1430	203	17.0	110
13...	0955	2180	1.5	95					

04284000 JAIL BRANCH AT EAST BARRE, VT (LAT 44 09 30 LONG 072 26 44)

NOV 1984					APR 1985				
06...	0915	35	6.0	103	23...	1100	143	6.0	105
DEC					JUN				
20...	0845	34	0.5	90	11...	0800	21	13.0	80
FEB 1985					JUL				
04...	1015	10	0.0	80	23...	1000	11	17.0	117
MAR					SEP				
11...	1400	37	0.5	168	03...	1150	14	17.0	100

04285500 NORTH BRANCH WINOOSKI RIVER AT WRIGHTSVILLE, VT (LAT 44 17 58 LONG 072 34 45)

OCT 1984					MAY 1985				
10...	1345	30	11.0	48	06...	1330	250	9.0	54
NOV					JUN				
19...	1000	97	2.0	19	24...	1030	78	20.0	60
JAN 1985					AUG				
09...	0915	36	0.0	2	05...	1330	15	25.0	55
FEB					SEP				
11...	1230	37	0.0	40	10...	1330	37	17.0	48
MAR									
25...	1030	177	1.5	43					

04286000 WINOOSKI RIVER AT MONTPELIER, VT (LAT 44 15 23 LONG 072 35 36)

OCT 1984					MAY 1985				
04...	0915	484	8.5	145	06...	0845	916	8.0	120
NOV					JUN				
07...	0907	577	5.5	85	24...	0845	294	21.0	118
JAN 1985					AUG				
08...	0830	650	0.0	120	05...	0930	102	23.0	230
FEB					SEP				
12...	0900	334	0.0	188	10...	0845	640	17.0	210
MAR									
25...	0830	518	0.0	198					

04287000 DOG RIVER AT NORTHFIELD FALLS, VT (LAT 44 10 58 LONG 072 38 27)

OCT 1984					APR 1985				
30...	0925	21	6.0	94	29...	0805	120	8.0	55
NOV					JUN				
30...	0900	158	4.5	50	28...	0800	57	14.0	102
DEC					JUL				
31...	0855	275	0.5	110	30...	0845	16	19.0	150
JAN 1985					AUG				
30...	1000	30	0.0	42	28...	0825	70	17.0	80
FEB					SEP				
27...	0930	240	2.0	75	25...	1315	36	15.0	125
MAR									
26...	0725	101	0.5	120					

04288000 MAD RIVER NEAR MORETOWN, VT (LAT 44 16 42 LONG 072 44 37)

NOV 1984					JUN 1985				
07...	1230	184	5.5	55	17...	1025	320	14.5	87
JAN 1985					JUL				
02...	0950	590	0.5	48	23...	1245	45	25.0	105
30...	1400	77	0.0	--	SEP				
MAR					03...	0930	97	15.0	45
11...	1000	215	0.5	64					
APR									
30...	1100	267	10.0	63					

04289000 LITTLE RIVER NEAR WATERBURY, VT (LAT 44 22 12 LONG 072 46 11)

OCT 1984					MAY 1985				
10...	1100	435	10.5	72	07...	0915	7.6	8.0	51
NOV					JUN				
19...	1430	446	4.0	50	24...	1400	485	18.0	74
JAN 1985					25...	0900	485	17.0	57
08...	1200	505	0.0	18	AUG				
FEB					12...	1200	48	21.0	110
11...	0900	397	0.0	22	SEP				
MAR					13...	1415	74	13.0	104
25...	1330	444	1.5	62					

MISCELLANEOUS TEMPERATURE AND SPECIFIC CONDUCTANCE MEASUREMENTS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

ST. LAWRENCE RIVER BASIN--Continued

04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT (LAT 44 28 44 LONG 073 08 21)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1984					MAY 1985				
11...	1100	131	11.0	146	07...	1600	2780	10.0	100
NOV					JUN				
20...	1030	1670	2.0	90	25...	1200	1880	20.0	100
JAN 1985					AUG				
09...	1300	2530	0.0	105	08...	1230	65	27.0	220
FEB					SEP				
12...	1345	1000	0.0	108	11...	1230	1890	17.0	138
MAR									
26...	1115	1320	2.0	88					

04292000 LAMOILLE RIVER AT JOHNSON, VT (LAT 44 37 22 LONG 072 40 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	SPECIFIC CON-DUCT-ANCE (UMHOS)
OCT 1984					MAY 1985				
16...	1230	168	12.5	135	08...	0745	872	8.0	57
NOV					JUN				
21...	0915	342	0.5	80	26...	0815	377	17.0	96
JAN 1985					AUG				
10...	0945	674	0.0	88	06...	0815	198	21.0	129
FEB					SEP				
13...	1230	281	0.0	95	11...	0745	202	16.0	144
MAR									
27...	0815	372	0.5	58					

04292500 LAMOILLE RIVER AT EAST GEORGIA, VT (LAT 44 40 45 LONG 073 04 23)

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 1984					MAY 1985				
11...	1245	463	11.0	120	07...	1330	2150	10.0	86
NOV					JUN				
21...	1300	840	0.0	54	25...	1330	720	20.0	102
JAN 1985					AUG				
10...	1200	1230	0.0	40	08...	0830	194	24.0	142
FEB					SEP				
14...	0915	982	0.0	104	11...	0900	207	17.0	126
MAR									
26...	1245	902	1.0	76					

04293000 MISSISQUOI RIVER NEAR NORTH TROY, VT (LAT 44 58 22 LONG 072 23 15)

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 1984					MAY 1985				
15...	1345	48	12.0	115	08...	1415	430	8.0	53
NOV					JUN				
27...	1145	134	0.5	52	26...	1315	125	16.0	90
JAN 1985					AUG				
14...	1230	106	0.0	32	07...	0730	36	21.0	129
FEB					SEP				
14...	1545	104	0.0	95	13...	0845	41	12.0	115
MAR									
27...	1415	151	2.0	77					

04293500 MISSISQUOI RIVER NEAR EAST BERKSHIRE, VT (LAT 44 57 30 LONG 072 41 55)

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 1984					MAY 1985				
15...	1045	193	12.5	106	08...	1100	1610	9.0	63
NOV					JUN				
27...	0900	490	0.5	84	26...	1115	392	16.0	92
JAN 1985					AUG				
14...	0915	400	0.0	30	07...	1015	219	22.0	102
FEB					SEP				
14...	1245	328	0.0	102	13...	1000	159	12.0	115
MAR									
27...	1100	650	1.5	77					

04296500 CLYDE RIVER AT NEWPORT, VT (LAT 44 56 22 LONG 072 11 23)

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 1984					MAY 1985				
16...	0830	6.9	10.5	82	09...	1045	25	10.0	78
NOV					JUN				
27...	1345	5.4	3.5	160	27...	0815	7.6	17.0	98
JAN 1985					AUG				
15...	0900	6.3	0.0	19	06...	1445	7.9	24.0	152
FEB					SEP				
15...	0745	13	0.0	22	12...	1345	7.9	16.0	160
MAR									
28...	0815	6.3	2.0	165					

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1984	4.75	JAN 21, 1985	3.95	APR 23, 1985	3.74	JUL 22, 1985	5.22
NOV 21	3.82	FEB 21	3.65	MAY 23	3.68	AUG 23	5.49
DEC 21	3.13	MAR 22	2.70	JUN 23	4.77	SEP 23	4.91

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1984	13.5	JAN 21, 1985	14.0	APR 25, 1985	12.2	JUL 23, 1985	13.0
NOV 24	14.0	FEB 25	13.8	MAY 25	12.4	AUG 23	13.4
DEC 21	13.9	MAR 27	13.6	JUN 28	12.7	SEP 23	13.5

4428300713210O1. Local number, LCW 1.
LOCATION.--Lat 44°28'30", long 71°32'10", Hydrologic Unit 01080101, in gravel pit about 1,100 ft southwest of Middle Street, 2.2 mi southeast of U.S. Highway 3, and 2.0 mi southeast of the center of Lancaster.
Owner: Town of Lancaster.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2.5 in, depth 30 ft.
DATUM.--Altitude of land-surface datum is 940 ft. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--November 1966 to May 1980, April 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing at 1.0 ft above land-surface datum, April 1970, Apr. 28, 1972, Dec. 21, 1982; lowest measured, 2.67 ft below land-surface datum, Sept. 24, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1984	2.39	JAN 18, 1985	1.13	JUN 24, 1985	2.02	SEP 24, 1985	2.62
NOV 28	2.01	APR 23	0.44	JUL 23	2.40		
DEC 21	1.94	MAY 23	1.24	AUG 20	2.57		

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	10.99	JAN 23, 1985	9.69	APR 23, 1985	8.34	JUL 24, 1985	11.96
NOV 26	10.30	FEB 26	9.31	MAY 22	9.39	AUG 26	12.69
DEC 18	9.15	MAR 25	7.83	JUN 24	10.15	SEP 24	11.14

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1984	9.25	JAN 24, 1985	8.57	APR 24, 1985	8.08	JUL 24, 1985	9.10
NOV 24	8.67	FEB 24	8.01	MAY 24	8.58	AUG 28	9.53
DEC 24	8.08	MAR 25	7.70	JUN 24	8.70	SEP 24	8.52

424752071315202. Local number, NAW 143. (424752071315201) 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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	10.60	JAN 23, 1985	10.25	APR 23, 1985	9.81	JUL 24, 1985	10.09
NOV 26	10.79	FEB 26	10.06	MAY 22	9.86	AUG 26	10.09
DEC 18	11.16	MAR 25	10.35	JUN 24	9.85	SEP 24	9.74

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	30.40	JAN 23, 1985	28.76	APR 23, 1985	28.07	JUL 24, 1985	29.19
NOV 26	29.76	FEB 26	28.78	MAY 22	28.00	AUG 26	29.97
DEC 18	30.06	MAR 25	28.26	JUN 24	28.64	SEP 24	29.58

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	38.01	JAN 23, 1985	38.88	APR 23, 1985	39.54	JUL 24, 1985	40.42
NOV 26	38.30	FEB 25	39.18	MAY 22	39.80	AUG 26	40.74
DEC 18	38.51	MAR 25	39.33	JUN 24	40.11	SEP 24	41.00

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	55.55	JAN 23, 1985	56.22	APR 23, 1985	56.71	JUL 24, 1985	57.15
NOV 26	55.79	FEB 25	56.20	MAY 22	56.75	AUG 26	57.08
DEC 18	55.86	MAR 25	56.56	JUN 24	56.71	SEP 24	57.00

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	18.34	JAN 23, 1985	18.14	APR 23, 1985	17.22	JUL 24, 1985	18.80
NOV 26	17.99	FEB 25	18.32	MAY 22	17.75	AUG 26	19.24
DEC 18	18.10	MAR 25	17.34	JUN 24	18.45	SEP 30	19.12

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	11.74	JAN 23, 1985	13.21	APR 23, 1985	11.90	JUL 24, 1985	13.72
NOV 26	12.45	FEB 26	13.55	MAY 22	12.23	AUG 26	14.50
DEC 18	12.90	MAR 25	12.16	JUN 24	12.99	SEP 24	14.90

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	49.88	JAN 23, 1985	48.58	APR 23, 1985	48.06	JUL 24, 1985	49.77
NOV 26	49.87	FEB 26	48.71	MAY 22	48.70	AUG 26	50.17
DEC 18	49.75	MAR 25	47.80	JUN 24	49.19	SEP 24	49.32

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	14.00	JAN 23, 1985	11.36	APR 22, 1985	6.62	JUL 24, 1985	11.91
NOV 26	14.49	FEB 25	9.95	MAY 24	8.07	AUG 26	13.35
DEC 18	14.25	MAR 25	6.90	JUN 24	10.26	SEP 24	11.95

431540071452801. Local number, WCW 1.
LOCATION.--Lat 43°15'40", long 71°45'28", Hydrologic Unit 01070003, 44 ft northeast of edge of pavement of northbound lane of Interstate Highway 89, about 2 mi southeast of State Highway 103 overpass in Warner.
Owner: New Hampshire Department of Public Works and Highways.
AQUIFER.--Sand and fine gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven, unused water-table well, diameter 2 in, depth 42.8 ft.
DATUM.--Altitude of land-surface datum is 424 ft. Measuring point: Top of casing, 3.2 ft above land-surface datum.
PERIOD OF RECORD.--December 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.94 ft below land-surface datum, May 5, 1969; lowest measured, 33.82 ft below land-surface datum, Dec. 17, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	31.64	JAN 23, 1985	32.35	APR 22, 1985	30.95	JUL 24, 1985	32.07
NOV 26	32.08	FEB 25	32.13	MAY 24	31.08	AUG 26	32.60
DEC 18	32.28	MAR 25	31.53	JUN 24	31.53	SEP 24	32.56

STRAFFORD COUNTY

430721071005001. Local number, LIW 1.
LOCATION.--Lat 43°07'21", long 71°00'50", Hydrologic Unit 01060003, southwest side of Bennett Road about 200 ft from the west corner of the Lee Town Green.
Owner: Mildred Carlson.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 40 in, depth 32.8 ft, lined with stone to 32.8 ft.
DATUM.--Altitude of land-surface datum is 190 ft. Measuring point: Top edge of board across well opening, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--November 1953 to current year. Prior to January 1958, published in New Hampshire Basic-Data Report No. 1, Ground-Water Series. Prior to January 1956, published in Water Levels and Artesian Pressures in Observation Wells in the United States: Part 1. Northeastern States; Geological Survey Water-Supply Paper Series. January 1956 to December 1972, published in Ground-Water Levels in the United States, Northeastern States; Geological Survey Water-Supply Paper Series.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.66 ft below land-surface datum, Mar. 22, 1983; lowest measured, 32.40 ft below land-surface datum, Dec. 18, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1984	31.69	FEB 26, 1985	31.26	MAY 31, 1985	31.32	SEP 27, 1985	31.40
NOV 26	32.31	MAR 25	31.04	JUN 28	31.67		
DEC 18	32.40	APR 23	31.16	JUL 30	31.82		
JAN 23, 1985	31.30	MAY 22	31.28	AUG 26	31.92		

BENNINGTON COUNTY

424810073160401. Local number, PQW 1.
LOCATION.--Lat 42°48'10", long 73°16'04", Hydrologic Unit 02020003, in front of residence on west side of State Highway 346 and 0.15 mi south of post office at North Pownal.
Owner: Robert Rudd, Sr.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 18 ft, cased with stone to 18 ft, open end.
DATUM.--Altitude of land-surface datum is 515 ft. Measuring point: Top of 0.75-in diameter hole drilled in center of 0.38-in thick steel cover at land-surface datum.
PERIOD OF RECORD.--October 1964 to current year. Prior to October 1977, published as Pownal 1.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1984	13.91	JAN 21, 1985	13.76	APR 21, 1985	13.42	JUL 21, 1985	13.88
NOV 26	13.74	FEB 23	13.64	MAY 27	13.78	AUG 21	13.95
DEC 24	13.52	MAR 21	12.34	JUN 20	13.62	SEP 23	14.94

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1984	29.82	JAN 23, 1985	33.32	APR 23, 1985	29.51	JUL 25, 1985	30.66
NOV 27	31.50	FEB 21	33.80	MAY 23	29.08	AUG 27	31.91
DEC 20	32.45	MAR 21	32.46	JUN 25	29.75	SEP 23	33.01

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1984	4.49	JAN 23, 1985	4.27	APR 27, 1985	2.56	JUL 26, 1985	4.07
NOV 27	4.28	FEB 21	4.50	MAY 22	3.73	AUG 27	4.39
DEC 31	3.62	MAR 25	3.60	JUN 25	4.20	SEP 25	4.23

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1984	15.21	JAN 23, 1985	13.75	APR 23, 1985	11.40	JUL 25, 1985	14.96
NOV 27	14.52	FEB 21	14.14	MAY 23	13.62	AUG 27	15.54
DEC 20	13.40	MAR 21	13.44	JUN 25	14.51	SEP 23	15.85

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1984	20.17	JAN 23, 1985	18.46	APR 23, 1985	17.23	JUL 25, 1985	19.54
NOV 27	19.77	FEB 21	19.35	MAY 23	18.24	AUG 27	20.06
DEC 20	19.34	MAR 21	18.55	JUN 25	19.01	SEP 23	20.23

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 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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1984	4.80	FEB 20, 1985	4.34	JUN 24, 1985	4.31	SEP 20, 1985	5.15
NOV 26	4.35	MAR 25	2.48	JUL 26	5.03		
DEC 21	4.12	APR 22	3.01	AUG 26	5.51		
JAN 21, 1985	4.14	MAY 24	3.48	29	5.43		

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1984	16.40	JAN 23, 1985	16.13	APR 23, 1985	13.87	JUL 25, 1985	15.60
NOV 27	16.48	FEB 21	16.56	MAY 23	14.55	AUG 27	16.20
DEC 20	16.33	MAR 21	16.24	JUN 25	15.11	SEP 23	16.86

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1984	35.49	JAN 21, 1985	35.75	APR 22, 1985	35.73	JUL 26, 1985	36.43
NOV 26	35.58	FEB 20	35.88	MAY 24	35.97	AUG 26	36.64
DEC 21	35.69	MAR 25	35.61	JUN 24	36.15	SEP 20	36.63

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1984	23.41	FEB 21, 1985	22.05	JUN 25, 1985	22.63	SEP 23, 1985	23.53
NOV 27	22.75	MAR 21	21.71	JUL 25	23.62		
DEC 20	21.91	APR 23	19.89	AUG 27	23.00		
JAN 23, 1985	21.61	MAY 23	21.90	28	22.67		

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1984	17.02	FEB 21, 1985	16.64	JUN 25, 1985	15.68	SEP 23, 1985	16.45
NOV 27	16.44	MAR 22	15.12	JUL 25	16.59		
DEC 20	16.10	APR 23	13.70	AUG 27	17.10		
JAN 24, 1985	16.09	MAY 24	15.00	28	17.03		

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1984	7.12	FEB 20, 1985	6.69	JUN 24, 1985	6.69	SEP 20, 1985	7.23
NOV 26	7.87	MAR 25	6.55	JUL 26	7.32		
DEC 21	6.42	APR 22	5.84	AUG 26	7.70		
JAN 21, 1985	6.68	MAY 24	6.55	28	7.33		

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1984	7.55	FEB 20, 1985	6.89	JUN 24, 1985	6.79	SEP 20, 1985	7.24
NOV 26	6.99	MAR 25	6.37	JUL 26	7.58		
DEC 21	6.42	APR 22	5.55	AUG 26	7.83		
JAN 21, 1985	6.71	MAY 24	6.40	28	7.44		

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1984	5.60	JAN 21, 1985	4.98	APR 23, 1985	4.68	JUL 24, 1985	5.85
NOV 20	5.25	FEB 23	5.06	MAY 21	4.70	AUG 26	5.50
DEC 20	4.82	MAR 22	4.25	JUN 20	5.37	SEP 24	5.43

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1984	9.54	FEB 20, 1985	9.18	JUN 24, 1985	9.31	SEP 20, 1985	9.73
NOV 26	9.60	MAR 25	8.74	JUL 26	9.66		
DEC 21	9.49	APR 22	8.60	AUG 26	9.75		
JAN 21, 1985	8.60	MAY 24	8.85	29	9.75		

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 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1984	12.23	JAN 21, 1985	10.36	APR 22, 1985	8.77	JUL 26, 1985	12.24
NOV 26	11.71	FEB 20	11.50	MAY 24	9.97	AUG 26	12.60
DEC 21	10.73	MAR 25	9.66	JUN 24	11.33	SEP 20	12.17

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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)
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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