Water Resources Data Massachusetts and Rhode Island Water Year 1985

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MA-RI-85-1
Prepared in cooperation with the States of Massachusetts and Rhode Island and with other agencies

CALENDAR FOR WATER YEAR 1985

1984

OCTOBER

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1985

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Water Resources Data Massachusetts and Rhode Island Water Year 1985

by R.A. Gadoury, D.J. Kent, K.G. Ries,III, and H.L. White

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MA-RI-85-1
Prepared in cooperation with the States of Massachusetts and Rhode Island 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 Massachusetts and Rhode Island 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. Hydrologic data for Massachusetts and Rhode Island are contained in one volume.

The 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: T. J. Calderini, G. G. Girouard, L. A. Rowse, J. P. Russell, R. S. Socolow, and N. C. Suurballe.

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 Massachusetts and Rhode Island and with other agencies under the general supervision of I. C. James, II, Chief, New England District, M. H. Frimpter, Chief, Massachusetts Office, and H. E. Johnston, Chief, Rhode Island Office.

REPORT DOCUMENTATION PAGE	1. REPORT NO. USGS/WRD/HD-87/262	2.	3. Recipient's Accession No.

4. Title and Subtitle
Water Resources Data for Massachusetts and Rhode Island, Water Year 1985

5. Report Date Published August 1987

6.

7. Author(s)
R. A. Gadoury, D. J. Kent, K. G. Ries III, and H. L. White

8. Performing Organization Rept. No. USGS-WDR-MA-RI-85-1

9. Performing Organization Name and Address
U.S. Geological Survey
Water Resources Division
150 Causeway Street, Suite 1309
Boston, MA 02114-1384

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address
U.S. Geological Survey
Water Resources Division
150 Causeway Street, Suite 1309
Boston, MA 02114-1384

13. Type of Report & Period Covered
Annual
10-01-84 to 9-31-85

14.

15. Supplementary Notes
This report was prepared in cooperation with the States of Massachusetts and Rhode Island and with other agencies.

16. Abstract (Limit: 200 words)

Water-resources data for the 1985 water year for Massachusetts and Rhode Island consist of records of stage, discharge, and water quality of streams; contents of lakes and reservoirs; and ground-water levels. This report contains discharge records for 97 gaging stations, monthend contents for 31 lakes and reservoirs, water quality for 9 gaging stations, and water levels for 104 observation wells. Also included are data for one crest-stage partial-record station. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. A few pertinent stations (not included above) in bordering states 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 cooperating State and Federal agencies in Massachusetts and Rhode Island.

17. Document Analysis. a. Descriptors
*Massachusetts, *Rhode Island, *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
No restriction on distribution. This report may be purchased from: National Technical Information Service Springfield, VA 22161	UNCLASSIFIED	244
	20. Security Class (This Page) UNCLASSIFIED	22. Price

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Letter after station name designates type of data;
(d) discharge, (l) contents of lake, (c) chemical, (m) microbiological,
(t) water temperature, (s) sediment

WATER RESOURCES DATA FOR MASSACHUSETTS AND RHODE ISLAND, 1985

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 Massachusetts and Rhode Island 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 - Massachusetts and Rhode Island."

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 and water quality of ground-water wells. This volume contains records for water discharge at 97 gaging stations; monthend contents at 30 lakes and reservoirs; water quality at 9 gaging stations; and water levels at 104 observation wells. Also included are supplemental water quality data for most of the 97 gaging stations. Locations of these sites are shown in figures 1 and 2. Additional water data were collected at various sites, not involved in the systematic data-collection program, and are published as miscellaneous discharge measurements. A few pertinent stations (not included above) in bordering States are also included in this report. 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 Massachusetts and Rhode Island.

This series of annual reports for Massachusetts and Rhode Island 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 Massachusetts and Rhode Island 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 1A and 1B." 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 MA-RI-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

The U.S. Geological Survey and agencies of the States of Massachusetts and Rhode Island have had cooperative agreements for the collection of streamflow records since 1909 and 1941, respectively, and for water-quality records since 1954. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are:

Massachusetts: Department of Environmental Management, James Gutensohn, commissioner, Division of Water Resources, C. F. Kennedy, director and chief engineer; Department of Environmental Quality Engineering, A. D. Cortese, commissioner, Division of Pollution Control, T. C. McMahon, director; Metropolitan District Commission, W. J. Geary, commissioner, Water Division, W. A. Brutsch, director and chief engineer, F. D. Faucher, director of Reservoir Operations.

Rhode Island: State Water Resources Board, W. M. Stetson, chairman, P. P. Calise, acting general manager; Department of Environmental Management, R. L. Bendick Jr., director, Division of Water Resources, J. W. Fester, chief; Narragansett Bay Water Quality Commission, E. R. Jankal, director.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 14 gaging stations published in this report.

Organizations supplying data are acknowledged in the station descriptions.

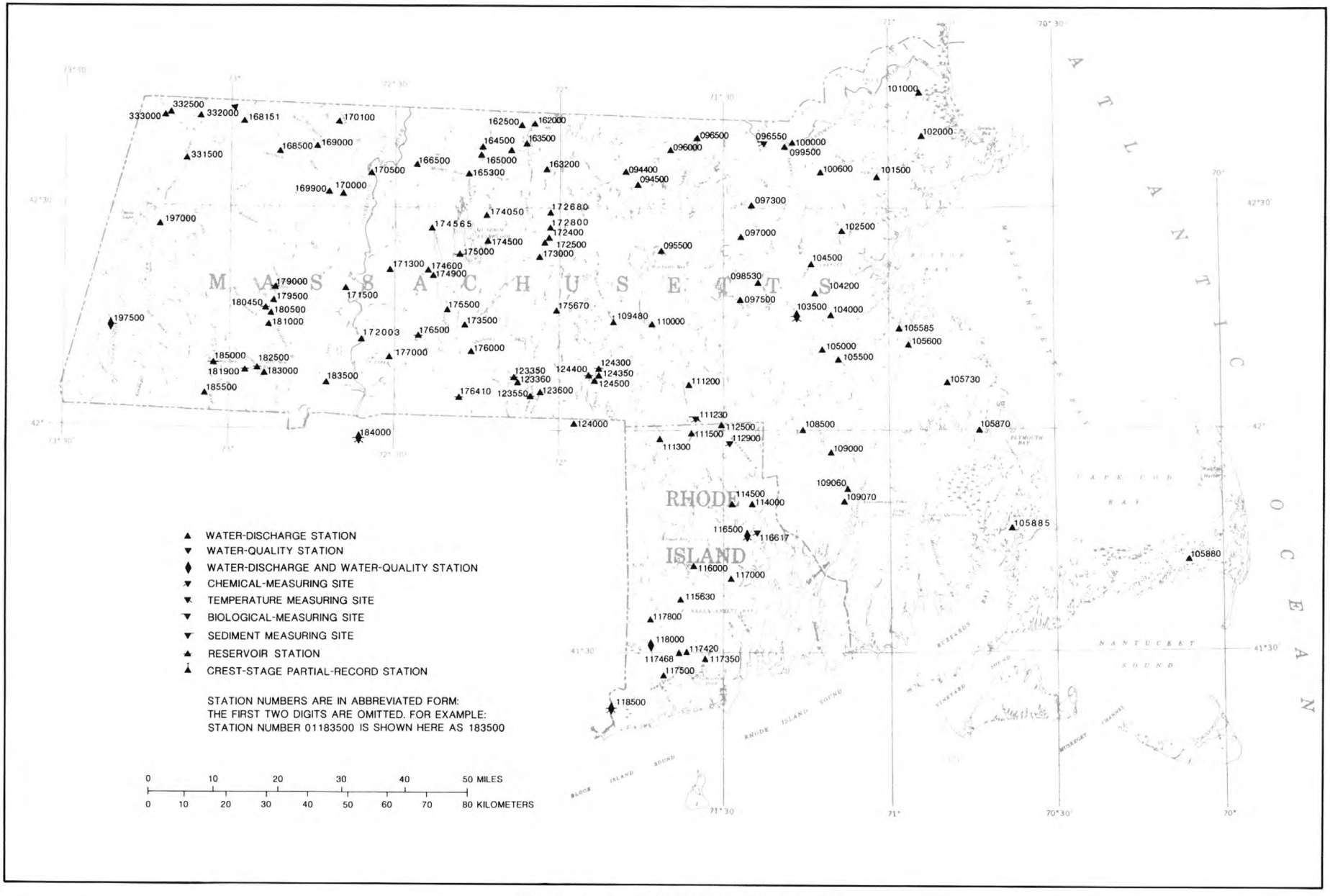

Figure 1.--Location of gaging stations

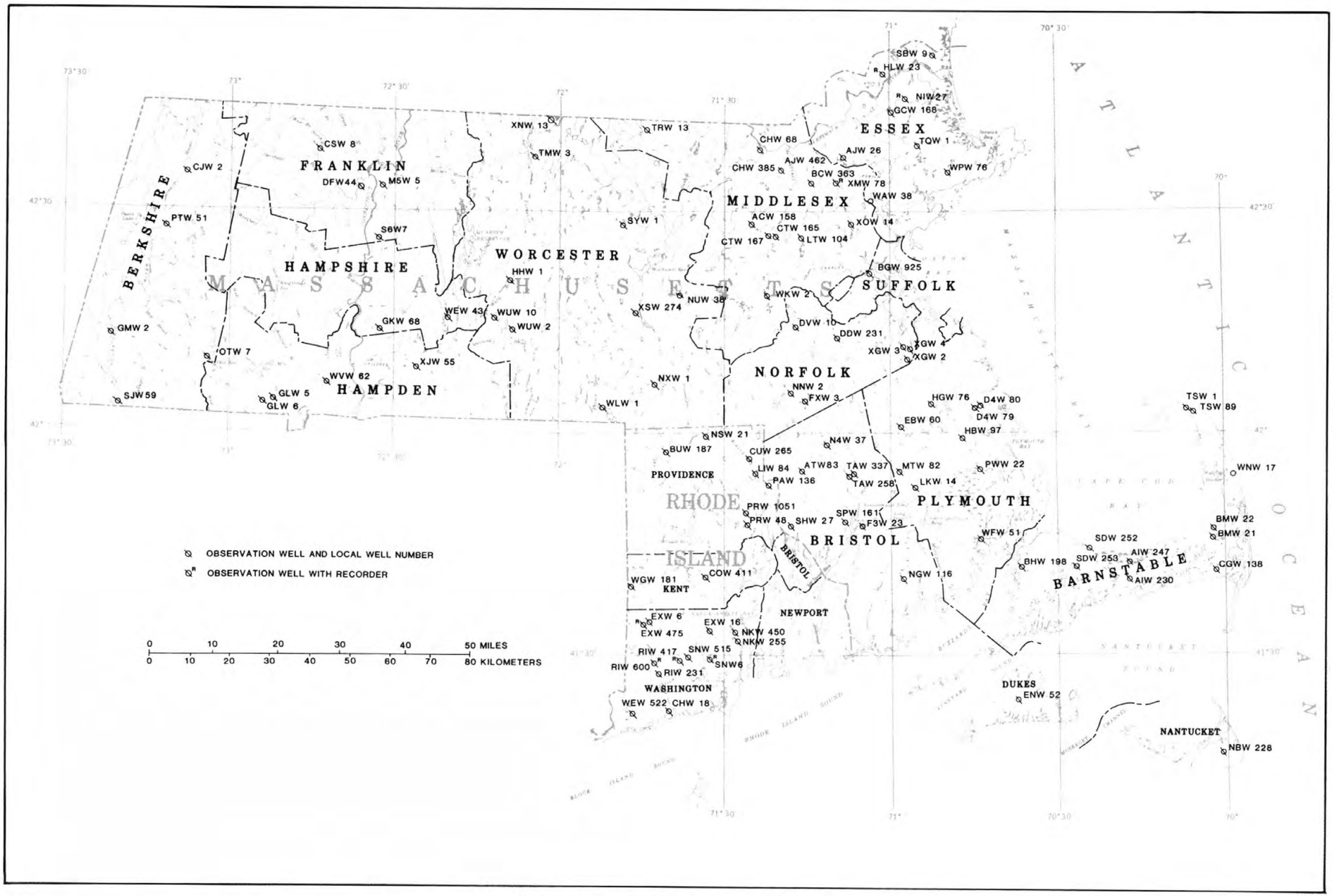

Figure 2.—Location of observation wells

SUMMARY OF HYDROLOGIC CONDITIONS

Runoff for the 1985 water year was in the lower quartile of record throughout Massachusetts and Rhode Island. It ranged from about 11 to 20 inches at selected long-term index stations in Massachusetts and about 16 inches at index stations in Rhode Island. Annual runoff was the second lowest on record at all four index stations west of the Connecticut River, and was generally the third or fourth lowest on record at index stations elsewhere in Massachusetts and Rhode Island. Monthly runoff was low throughout both States at the beginning of the water year. Runoff was below median at all index stations in each month from October through June, and was in the lower quartile of record in most of those months. Record low runoff occurred in April and May at most stations in both States. Beginning in late June, several storms broke the drought. Runoff for July was slightly below median. In August, runoff was above median in the western and eastern areas of Massachusetts, and was in the upper quartile of record in central Massachusetts and Rhode Island. In September, runoff was in the upper quartile throughout both States. The increased runoff in central and western Massachusetts was a result of Hurricane Gloria; in eastern Massachusetts and Rhode Island, it resulted from normal rainfall. Monthly mean discharges and median discharges for the reference period 1951-80 for three index gaging stations are shown in figure 3.

The most significant high water was caused by Hurricane Gloria on September 27. As the center of the hurricane moved up the Connecticut River valley, rainfall produced peaks of greatest magnitude in the Farmington, Westfield, Deerfield, and Hoosic River basins. Recurrence intervals of the peak discharges were in the 4- to 8-year range. Most of the damage from the hurricane was caused by high winds which felled many trees that damaged buildings and created power outages. The U.S. Army Corps of Engineers estimated damage to public property to be about $21 million in Massachusetts and $3.4 million in Rhode Island. Estimates of damage to private property and utilities were not available.

Annual peak discharges, exclusive of those produced by Hurricane Gloria, occurred in mid-March at most gaging stations in Massachusetts and at the end of August at most stations in Rhode Island. None of the peaks were unusually significant; recurrence intervals seldom exceeded 1.3 years in Massachusetts or 3 to 4 years in Rhode Island.

Storage in Quabbin Reservoir in central Massachusetts declined from 93 percent full at the beginning of the water year to 76 percent full at the end. The combined storage of Borden Brook and Cobble Mountain Reservoirs in western Massachusetts declined from 69 percent full at the beginning of the year to 53 percent full September 26, and was 62 percent full at the end of the water year. Storage in Scituate Reservoir in Rhode Island declined from 75 percent full at the beginning of the year to 54 percent full at the end.

Ground-water levels declined in October and showed mixed trends in November. In both months, levels were in the normal range in Rhode Island and in much of Massachusetts. Exceptions were Cape Cod, where they were above normal (highest 20 percent of recorded range for the month), and Worcester County and Berkshire County, where they were below normal (lowest 20 percent of recorded range for the month). Levels again showed mixed trends in December, but were in the normal range except for Rhode Island and nearby areas in southeastern Massachusetts, where they were below normal. Water levels declined in about two-thirds of the wells in both States during January. The levels were in the normal range across the northern half of Massachusetts and on Cape Cod, and were below normal in Rhode Island and southern Massachusetts. In February, levels generally increased seasonally, but were below normal for the month throughout both States, except for a small area in north central Massachusetts, where they remained in the normal range. From March through June, water levels exhibited typical seasonal increases or decreases, but the levels were below normal in all areas of both States during those months. Although water levels declined in July and August, the rate of decrease slowed. In July, water levels in coastal Massachusetts from north of Plymouth to the New Hampshire border returned to the normal range, and by August levels had returned to the normal range everywhere except in southern Rhode Island. In September, water levels in most wells rose. Levels were in the normal range except for northeast coastal Massachusetts and central and southern Rhode Island, where levels were above normal.

During the period March to June, 74 wells in Massachusetts and nine wells in Rhode Island recorded new monthly low water levels for one or more of those months. For undetermined reasons, the Boston 925 (Mass.) well set successively new highs for the period of record in each month from October to January, and new monthly highs in each month from February to August. The Northbridge 1 (Mass.) well set new monthly or all-time lows each month from February to September, as a result of construction activities in the area. New lows for the periods of record were set at West Brookfield 10 (Mass.) in November and West Greenwich 181 (R.I.) in December. Monthly water levels and average, maximum, and minimum monthly levels for the periods of record for three observation wells in western and eastern Massachusetts and northern Rhode Island are shown in figure 4.

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.

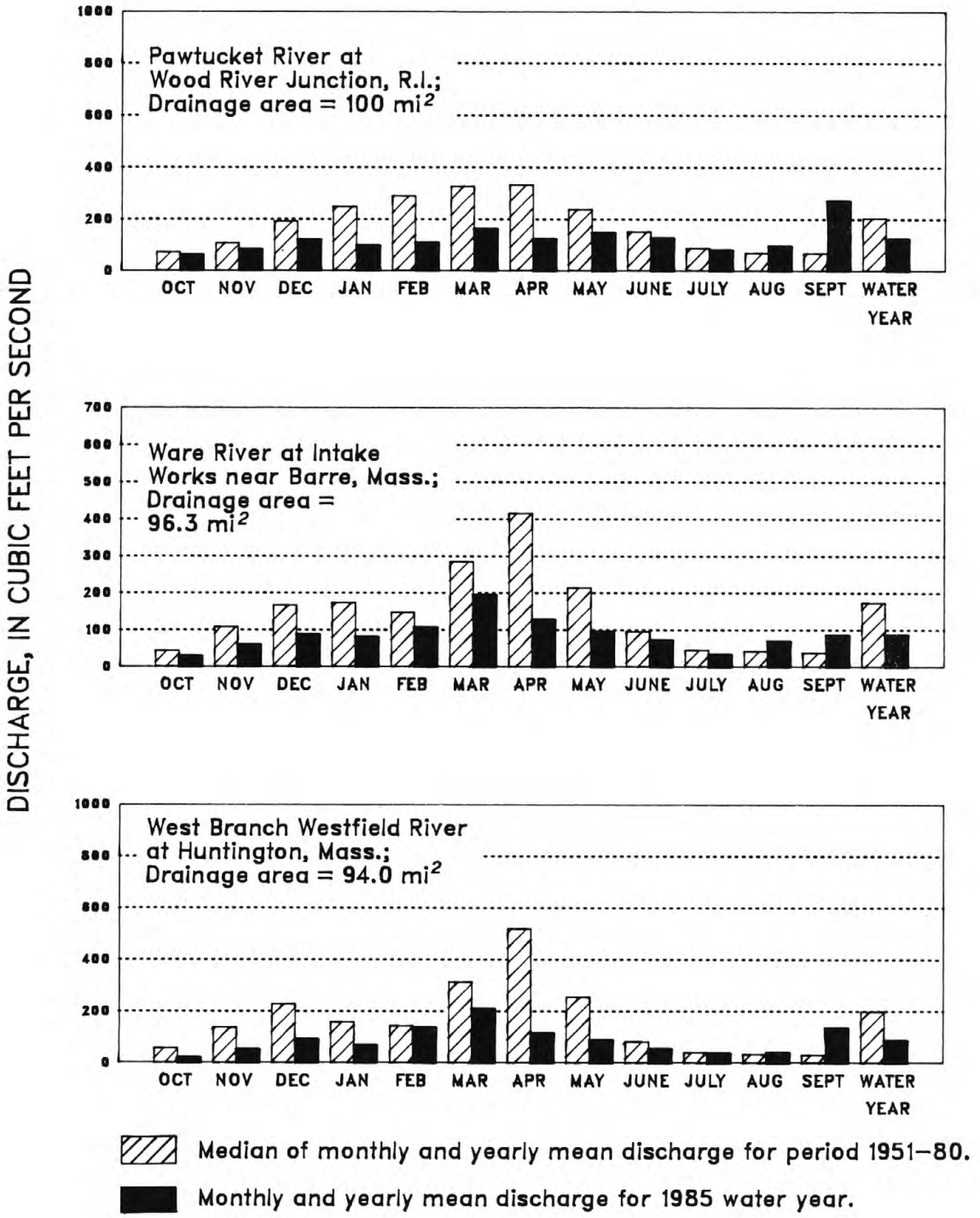

Figure 3.--Comparison of discharge at three long-term index gaging stations during 1985 water year with median discharge for period 1951–80.

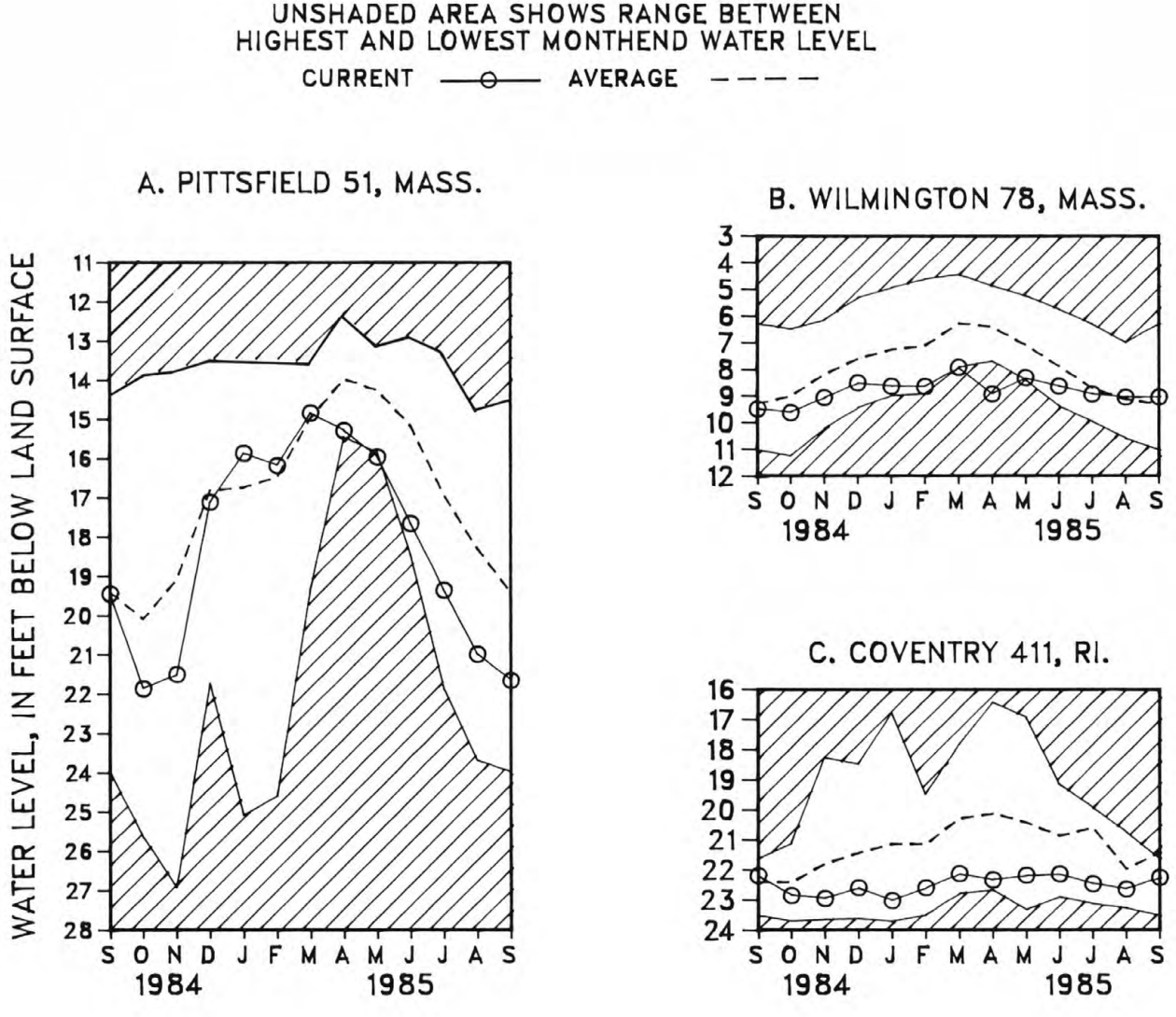

Figure 4.--Comparison of monthly water levels in selected observation wells during 1985 water year with average, maximum, and minimum levels for period of record.

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 figures 1 and 2. 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 station number (usually eight digits, but sometimes nine or more if needed) appears just to the left of the station name. The first two digits indicate the Part number (formerly used in Water-Supply Papers to designate major river systems) and the last six or more digits indicate the downstream order within the Part. For example, in the station number 01094400, "01" is the Part number for "North Atlantic Slope Basins" and "094400" is the downstream order number.

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.)

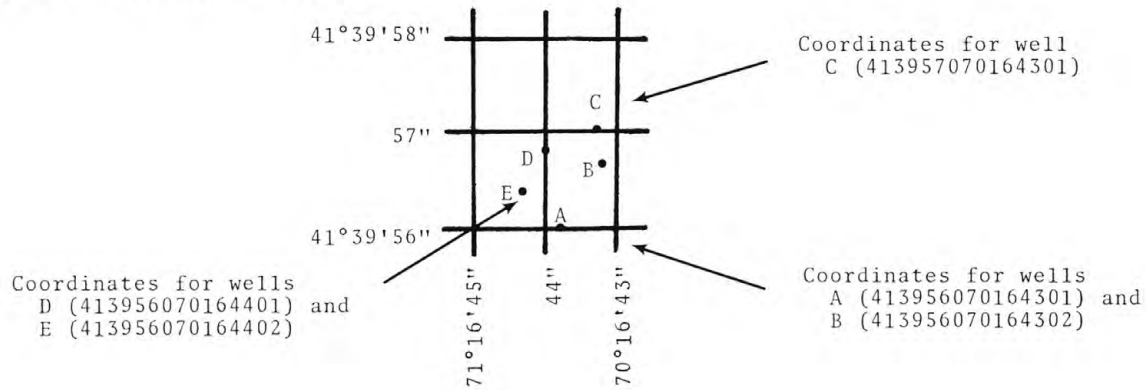

Figure 5.--System for numbering wells (latitude and longitude)

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 2.

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 stations this year. Location of all complete-record stations for which data are given in this report are shown in figure 1.

Data Collection and Computation

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

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

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

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

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

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

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

Data Presentation

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

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

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

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

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

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

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

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

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

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

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

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

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.

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.

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

Sediment

Suspended-sediment concentrations are determined 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 laboratorys 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 laboratory 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 insure 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

Only water-level data from a national network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Massachusetts and Rhode Island are shown in figure 2.

Data Collection and Computation

Measurements of water levels are made in many 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 township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. 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 in wells equipped with recording gages are reported daily or for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given 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 by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

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 collar, notch in top of casing, plug in pump base and so on), 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 (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

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. For most wells all taped measurements of water level are published. For wells equipped with digital recorders, tables of daily mean water levels and the means, highs, and lows for each month are published. Abbreviated tables are published for wells equipped with analog recorders; water level highs are shown for every fifth day and the end of each month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the daily or abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

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^2), 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).

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.

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

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 particles, 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 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.

Plankton (continued)

Phytoplankton (continued)

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 [mg O/(m^2 time)] for periphyton and macrophytes and [mg O/(m^3.time)] for phytoplankton are 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.

Sediment (continued)

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 surfacewater 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.

MERRIMACK RIVER BASIN

01094400 NORTH NASHUA RIVER AT FITCHBURG, MASS.

LOCATION.--Lat 42°34'34", long 71°47'19", Worcester County, Hydrologic Unit 01070004, on right bank 400 ft upstream from Fifth Street Bridge at Fitchburg and 1.8 mi upstream from Baker Brook.

DRAINAGE AREA.--63.4 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 10, 11, 16-18, 20-24, 26-30, Feb. 3-10. Records good. Flow regulated by mills and reservoirs upstream. Flow affected by diversions for municipal use. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--13 years, 124 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,740 ft^3/s Apr. 5, 1984, gage height, 7.02; minimum, 6.7 ft^3/s Oct. 19, 1980, Sept. 10 and Oct. 1, 1984, but may have been slightly lower about Sept. 8, 1980; minimum daily, 9.0 ft^3/s Sept. 8, 15, 1980.

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. 12	1700	*743	*4.33	No other peak greater than base discharge.			

Minimum discharge, 6.7 ft^3/s Oct. 1; minimum daily, 11 ft^3/s Oct. 14, 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	23	22	36	79	34	105	96	50	64	44	122	93
2	86	23	34	101	38	97	98	46	56	35	74	69
3	46	19	37	106	36	90	101	89	47	30	53	55
4	29	16	46	81	34	80	104	108	38	28	41	49
5	23	35	37	77	32	104	110	84	34	22	34	36
6	19	45	43	61	33	99	107	76	38	18	31	48
7	17	45	51	61	34	85	98	111	34	18	27	50
8	21	47	43	61	34	101	122	93	31	17	48	46
9	20	45	42	55	33	119	129	74	31	17	43	42
10	18	42	37	53	32	123	108	68	30	16	29	58
11	17	61	38	51	32	121	97	59	22	15	25	54
12	18	105	44	48	60	494	88	53	25	16	22	40
13	15	75	57	47	258	496	83	51	29	20	22	36
14	11	53	71	44	179	304	80	48	28	30	20	33
15	13	38	70	43	134	222	80	43	22	35	29	30
16	18	36	62	42	107	171	80	40	26	29	69	27
17	17	34	61	40	91	146	77	39	47	23	41	25
18	17	26	61	39	80	140	69	66	43	21	31	25
19	18	25	69	38	72	126	73	71	39	21	28	26
20	15	25	80	38	69	123	71	59	30	18	26	24
21	11	24	71	37	64	121	68	61	24	16	21	22
22	28	26	107	37	68	111	80	103	22	19	18	18
23	69	22	115	36	94	105	78	72	21	15	17	19
24	35	22	92	36	144	101	69	58	25	13	16	48
25	26	22	90	36	183	93	64	47	29	13	49	58
26	35	22	81	35	153	87	64	40	30	69	69	102
27	34	22	66	35	137	84	59	38	33	79	52	238
28	33	22	64	34	117	85	56	52	53	39	37	184
29	33	43	77	34	---	84	59	70	72	37	29	109
30	29	46	92	33	---	84	55	51	59	30	101	80
31	25	---	85	33	---	79	---	40	---	47	144	---
TOTAL	819	1088	1959	1551	2382	4380	2523	1960	1082	850	1368	1744
MEAN	26.4	36.3	63.2	50.0	85.1	141	84.1	63.2	36.1	27.4	44.1	58.1
MAX	86	105	115	106	258	496	129	111	72	79	144	238
MIN	11	16	34	33	32	79	55	38	21	13	16	18

CAL YR 1984 TOTAL 50919 MEAN 139 MAX 1790 MIN 11
WTR YR 1985 TOTAL 21706 MEAN 59.5 MAX 496 MIN 11

01094500 NORTH NASHUA RIVER NEAR LEOMINSTER, MASS.

LOCATION.--Lat 42°30'06", long 71°43'23", Worcester County, Hydrologic Unit 01070004, on right bank 1.3 mi upstream from Wekepeke Brook, 2.5 mi southeast of Leominster, and 6.1 mi upstream from confluence with Nashua River.

DRAINAGE AREA.--110 mi^2, includes 2.1 mi^2 above outlet of Ashby (Fitchburg) Reservoir.

PERIOD OF RECORD.--Discharge: September 1935 to current year.
Water-quality records: Water years 1955, 1958.

REVISED RECORDS.--WDR MA-NH-RI-VT-73-1: Drainage area. WDR MA-RI-82-1: 1981.

GAGE.--Water-stage recorder. Datum of gage is 270.04 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Aug. 26 to Sept. 30. Records good except those for estimated daily discharges, which are fair. Regulation at low flow by mills upstream. Flow includes diversion to basin for municipal supplies: for Fitchburg, from Mare Meadow Reservoir since 1955; for Leominster, from Wachusett Reservoir since 1966 and from the Southeast Well Field since 1958. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--50 years, 195 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft^3/s Mar. 18, 1936, gage height, 20.53 ft, from floodmarks, by computation of peak flow over dam; minimum, 11 ft^3/s Aug. 29, 1948; minimum daily, 22 ft^3/s Sept. 27, 1936, Sept. 2, 1957.

Maximum discharge since at least 1850, that of Mar. 18, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 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	1845	*1,280	*4.14	No other peak greater than base discharge.			

Minimum discharge, 24 ft^3/s Oct. 1; minimum daily, 29 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	45	47	60	121	59	141	162	82	139	71	255	200
2	195	47	56	161	66	132	161	77	94	56	114	120
3	94	45	65	166	65	122	166	166	79	50	83	84
4	58	43	80	132	61	111	166	182	68	45	67	68
5	49	82	63	124	59	143	167	133	65	41	58	56
6	43	85	84	101	63	139	162	126	71	37	54	70
7	39	79	86	101	64	118	146	182	64	37	49	80
8	40	75	69	96	58	149	213	152	58	36	75	70
9	42	70	67	86	58	181	213	123	56	33	69	65
10	42	72	68	78	58	187	176	111	56	33	50	90
11	39	107	74	79	60	186	155	97	50	33	44	85
12	38	204	80	76	90	811	142	86	55	32	42	74
13	36	130	94	72	563	810	130	85	60	42	42	62
14	34	97	111	72	305	467	127	82	56	53	39	60
15	33	76	102	71	216	342	129	72	47	71	41	52
16	39	71	91	61	170	265	126	70	50	51	155	48
17	38	65	92	62	143	232	120	69	89	42	68	44
18	38	53	95	66	129	225	107	120	77	38	52	44
19	39	53	109	65	118	195	115	115	68	37	48	44
20	39	52	119	65	111	195	107	95	55	34	49	41
21	33	50	104	62	102	190	102	94	47	31	43	40
22	37	49	193	63	104	171	126	168	42	36	40	38
23	157	47	177	65	139	161	119	114	42	32	38	38
24	69	47	139	64	197	152	106	92	46	30	36	90
25	53	44	142	63	253	145	102	77	50	29	96	100
26	73	44	123	63	209	134	99	67	52	93	125	240
27	62	46	101	60	186	130	91	63	66	180	90	500
28	57	44	98	59	159	136	88	97	91	70	64	420
29	62	75	118	60	---	134	93	115	107	63	55	200
30	57	74	141	57	---	129	87	86	88	54	240	120
31	50	---	124	56	---	120	---	71	---	88	310	---
TOTAL	1730	2073	3125	2527	3865	6753	4003	3269	1988	1578	2591	3243
MEAN	55.8	69.1	101	81.5	138	218	133	105	66.3	50.9	83.6	108
MAX	195	204	193	166	563	811	213	182	139	180	310	500
MIN	33	43	56	56	58	111	87	63	42	29	36	38

CAL YR 1984 TOTAL 92297 MEAN 252 MAX 4030 MIN 29
WTR YR 1985 TOTAL 36745 MEAN 101 MAX 811 MIN 29

01095500 NASHUA RIVER AT CLINTON, MASS.

LOCATION.--Lat 42°24'12", long 71°41'19", Worcester County, Hydrologic Unit 01070004, at Wachusett Dam 1 mi south of Clinton.

DRAINAGE AREA.--107.69 mi^2, since July 1937.

PERIOD OF RECORD.--Discharge: July 1896 to current year. Prior to October 1978, published as South Branch Nashua River.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1051: 1928. WDR MA-RI-78-1: 1977.

REMARKS.--Flow regulated by Wachusett Reservoir and several ponds. Records adjusted for change in contents in Wachusett Reservoir and diversions from Ware River and Quabbin Reservoir on Swift River. Entire flow, except required releases to the Nashua River, diverted for use of Boston metropolitan district and other municipalities.

COOPERATION.--Records provided by Water Division of Metropolitan District Commission.

AVERAGE DISCHARGE.--89 years, 190 ft^3/s, 23.96 in/yr, adjusted to present drainage area.

MONTHLY DISCHARGE, IN CUBIC FEET PER SECOND, AND RAINFALL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

	Mean	Per square mile	Runoff, in inches	Rainfall, in inches
October	49.0	0.46	0.52	3.88
November	69.2	.64	.72	2.80
December	102	.95	1.09	2.71
Calendar year 1984	278	2.58	35.12	48.43
January	76.1	.71	.81	1.40
February	112	1.04	1.09	2.61
March	173	1.61	1.86	3.26
April	123	1.14	1.27	1.81
May	154	1.43	1.65	4.85
June	104	.97	1.08	3.23
July	77.5	.72	.83	4.93
August	70.1	.65	.75	5.67
September	96.8	.90	1.00	5.02
Water year 1985	101	.94	12.67	42.17

01096000 SQUANNACOOK RIVER NEAR WEST GROTON, MASS.

LOCATION.--Lat 42°38'03", long 71°39'30", Middlesex County, Hydrologic Unit 01070004, on left bank 0.7 mi downstream from Trout Brook and 2.7 mi northwest of West Groton.

DRAINAGE AREA.--63.7 mi^2, excludes 2.16 mi^2, above outlet of Ashby Reservoir.

PERIOD OF RECORD.--Discharge: October 1949 to current year.
Water-quality records: Water year 1957.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 244.27 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 3, 4, Jan. 6, 9. Records good. Occasional regulation at low flow by mill upstream; regulation greater prior to 1961. Entire flow from 2.16 mi^2 upstream from outlet of Ashby Reservoir diverted for municipal supply of Fitchburg except for occasional periods of spill. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--36 years, 111 ft^3/s, 23.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,010 ft^3/s Oct. 16, 1955, gage height, 8.04 ft; minimum daily, 2.0 ft^3/s Sept. 7, 1965.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 13	0600	*641	*4.75				

Minimum daily discharge, 9.9 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	10	22	27	72	27	89	87	46	38	30	39	58
2	32	21	27	74	28	82	94	41	39	24	44	37
3	32	18	28	85	28	75	104	46	34	20	29	22
4	27	19	33	77	28	69	108	79	27	18	22	17
5	22	22	33	67	27	64	106	83	24	16	17	16
6	17	28	36	56	28	67	103	70	25	15	15	19
7	15	32	35	52	28	65	96	92	26	14	14	31
8	14	28	33	47	27	68	95	111	25	13	15	38
9	14	25	30	40	27	87	102	89	23	13	14	30
10	14	25	29	38	27	111	98	72	22	12	13	28
11	13	25	29	38	26	116	88	62	19	12	13	28
12	13	43	32	37	27	216	81	55	19	12	13	24
13	14	71	36	36	114	607	75	50	20	13	11	20
14	13	51	46	35	248	394	71	45	20	13	11	18
15	12	39	53	34	192	256	72	40	19	15	11	16
16	12	34	46	32	137	196	73	35	20	15	15	15
17	14	31	43	29	103	166	69	32	25	16	13	14
18	13	29	48	29	87	151	63	39	31	15	11	13
19	13	27	48	30	75	135	64	65	30	14	12	13
20	12	26	49	31	70	130	66	65	27	13	12	12
21	12	25	47	31	63	122	62	53	22	13	11	11
22	13	25	57	30	61	111	59	59	18	13	11	11
23	28	24	119	30	73	104	61	65	17	12	11	12
24	37	23	95	30	104	100	60	51	16	11	9.9	15
25	31	23	75	30	154	95	56	41	15	10	13	35
26	30	22	69	30	151	89	52	51	15	11	20	22
27	29	22	57	29	123	85	49	37	16	24	23	34
28	28	22	49	29	104	83	61	33	20	25	20	69
29	27	24	50	29	---	81	53	49	27	19	19	71
30	25	25	73	28	---	81	46	51	35	15	19	45
31	24	---	83	27	---	81	---	38	---	14	31	---
TOTAL	610	851	1515	1262	2187	4176	2274	1745	714	480	531.9	794
MEAN	19.7	28.4	48.9	40.7	78.1	135	75.8	56.3	23.8	15.5	17.2	26.5
MAX	37	71	119	85	248	607	108	111	39	30	44	71
MIN	10	18	27	27	26	64	46	32	15	10	9.9	11
CFSM	31	.45	.77	.64	1.23	2.12	1.19	.88	.37	.24	.27	.42
IN.	.36	.50	.88	.74	1.28	2.44	1.33	1.02	.42	.28	.31	.46

CAL YR 1984 TOTAL 50592.0 MEAN 138 MAX 2080 MIN 7.8 CFSM 2.17 IN. 29.55
WTR YR 1985 TOTAL 17139.9 MEAN 47.0 MAX 607 MIN 9.9 CFSM .74 IN. 10.01

01096500 NASHUA RIVER AT EAST PEPPERELL, MASS.

LOCATION.--Lat 42°40'03", long 71°34'32", Middlesex County, Hydrologic Unit 01070004, on right bank 200 ft downstream from powerplant of James River-Pepperell Co. at East Pepperell and 0.8 mi upstream from Nissitissit River.

DRAINAGE AREA.--Total above gage, 435 mi^2, net above gage, 316 mi^2, flow diverted from 119 mi^2, for use of Boston metropolitan district and city of Worcester.

PERIOD OF RECORD.--Discharge: October 1935 to current year.
Water-quality records: Water years 1952-53, 1973-74.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 169.04 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Extremes and daily discharge include water released while diverting flow of Nashua River for use of Boston metropolitan district and water diverted into basin from Ware River basin since 1955 for municipal use of Fitchburg. Prior to October 1981, water diverted around station through plant of James River-Pepperell Co. was added to daily figures. Flow regulated by powerplant immediately upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--50 years, 570 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,900 ft^3/s Mar. 20, 1936, gage height, 19.1 ft, from floodmarks, from rating curve extended above 12,000 ft^3/s on basis of velocity-area studies; minimum daily, 1.1 ft^3/s Aug. 13, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 ft^3/s Mar. 14, gage height, 4.91 ft; minimum daily, 26 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	149	132	45	569	186	536	272	172	214	63	311	483
2	347	26	186	513	101	563	388	223	208	139	490	393
3	257	209	249	408	159	351	589	376	285	151	336	260
4	206	255	244	411	195	356	465	471	308	72	231	268
5	203	256	240	411	192	568	493	376	277	82	221	237
6	200	267	239	408	126	464	577	376	198	106	190	278
7	98	134	228	363	168	336	251	376	221	137	184	239
8	60	77	256	344	220	320	457	542	141	157	136	113
9	58	218	292	121	216	336	732	607	67	193	170	186
10	170	306	290	160	213	356	477	391	169	169	108	254
11	219	299	320	249	268	362	502	280	214	161	75	254
12	103	323	334	258	332	362	547	123	114	136	191	247
13	55	360	329	258	385	1220	371	227	70	80	154	237
14	54	357	325	260	981	1790	255	267	70	80	98	189
15	219	373	323	263	971	1270	285	237	73	161	69	161
16	336	355	231	261	777	969	315	237	74	118	77	158
17	329	361	224	258	653	803	357	205	240	68	91	158
18	244	352	250	257	510	730	376	222	321	78	99	161
19	214	269	246	232	400	709	308	202	285	85	141	105
20	92	244	279	220	400	655	275	186	261	168	228	70
21	55	243	347	219	359	638	275	256	172	109	183	73
22	55	113	388	212	340	586	275	311	66	148	115	147
23	55	45	366	159	341	561	275	361	67	162	117	177
24	236	46	453	109	388	322	325	548	67	98	74	172
25	206	181	441	58	643	328	376	289	67	87	82	274
26	66	243	424	263	638	372	353	130	231	103	90	531
27	270	247	383	309	547	372	257	56	298	77	242	505
28	337	245	552	276	521	494	234	233	246	148	257	764
29	155	243	436	210	---	543	234	301	106	271	174	532
30	191	119	264	187	---	535	164	300	63	216	185	565
31	296	---	298	186	---	190	---	300	---	180	532	---
TOTAL	5535	6898	9482	8412	11230	17997	11060	9181	5193	4003	5651	8191
MEAN	179	230	306	271	401	581	369	296	173	129	182	273
MAX	347	373	552	569	981	1790	732	607	321	271	532	764
MIN	54	26	45	58	101	190	164	56	63	63	69	70

CAL YR 1984 TOTAL 299346 MEAN 818 MAX 6710 MIN 26
WTR YR 1985 TOTAL 102833 MEAN 282 MAX 1790 MIN 26

01096550 MERRIMACK RIVER ABOVE LOWELL, MASS.
(National stream-quality accounting network station)

LOCATION.--Lat 42°38'20", long 71°22'17", Middlesex County, Hydrologic Unit 01070002, on downstream side of Tyngsboro bridge on State Highway 113, 6.2 mi upstream from Pawtucket Dam, and 2 mi downstream from Massachusetts-New Hampshire State line.

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January to September 1973.
WATER TEMPERATURES: January to September 1973.

REMARKS.--Discharge computed on basis of records for gaging station below Concord River (station 01100000) and gaging station on Concord River (station 01099500).

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	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												
08...	0815	3090	118	6.89	5.5	9.5	--	750	8.6	77	1900	210
MAR												
14...	1100	22800	68	6.60	8.0	1.5	6.5	755	13.7	99	730	290
APR												
10...	1100	9110	75	6.80	--	6.0	1.5	765	11.4	91	150	K20
MAY												
09...	1100	8250	79	6.90	14.0	14.0	1.5	770	10.4	100	140	K6
JUN												
05...	1100	3000	112	6.78	--	21.0	1.5	763	6.9	77	530	490
JUL												
09...	1100	1810	113	7.00	--	25.0	1.5	757	6.9	84	1200	K4
AUG												
13...	1100	2240	136	6.80	25.5	25.5	0.5	767	5.8	71	300	K40

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD 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)	CAR-BONATE IT-FLD (MG/L AS CO3)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3
NOV												
08...	--	--	--	--	--	--	--	--	0	11	9.0	--
MAR												
14...	11	7	3.5	0.65	7.9	58	1	0.9	0	5.0	4.0	6
APR												
10...	13	6	4.1	0.76	8.1	55	1	0.9	0	8.0	7.0	8
MAY												
09...	14	10	4.4	0.81	8.4	54	1	0.8	0	4.0	4.0	5
JUN												
05...	19	7	6.0	1.0	14	60	1	1.2	0	15	12	--
JUL												
09...	21	8	6.7	1.0	14	57	1	1.4	0	16	13	14
AUG												
13...	21	8	6.4	1.2	17	62	2	1.6	0	16	13	14

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

01096550 MERRIMACK RIVER ABOVE LOWELL, MASS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
NOV 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	7.8	13	<0.1	5.2	51	42	0.27	0.14	0.7	0.16	0.02
APR 10...	8.3	12	0.1	5.1	50	44	<0.10	0.10	3.0	0.05	0.04
MAY 09...	8.4	13	0.2	4.8	58	43	0.19	0.15	0.5	0.05	0.04
JUN 05...	13	20	0.2	5.0	81	69	0.56	0.81	0.8	0.10	0.05
JUL 09...	8.6	20	0.2	3.5	77	64	0.30	0.19	1.5	0.14	0.07
AUG 13...	13	20	0.3	1.6	83	70	0.34	0.22	0.8	0.13	0.08

DATE	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	<0.01	70	1	13	<0.5	<1	2	<3	3	100	2
APR 10...	0.02	--	<1	17	<0.5	<1	--	<3	3	89	1
MAY 09...	0.03	--	--	--	--	--	--	--	--	--	--
JUN 05...	0.08	30	<1	15	2	<1	10	<3	8	210	3
JUL 09...	0.05	--	--	--	--	--	--	--	--	--	--
AUG 13...	0.09	--	2	13	<0.5	<1	--	<3	17	64	1

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)
NOV 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	<4	74	<0.1	<10	2	<1	<1	26	<6	17	--
APR 10...	11	34	0.1	<10	<1	<1	<1	29	<6	25	--
MAY 09...	--	--	--	--	--	--	--	--	--	--	--
JUN 05...	5	42	<0.1	<10	5	<1	<1	40	<6	40	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	4	7	0.2	<10	4	<1	<1	45	<6	18	4

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01097000 ASSABET RIVER AT MAYNARD, MASS.

LOCATION.--Lat 42°25'55", long 71°27'01", Middlesex County, Hydrologic Unit 01070005, on right bank at Maynard, 150 ft upstream from bridge on State Highway 27, 1.7 mi downstream from Assabet Brook, and 7.1 mi upstream from confluence with Sudbury River.

DRAINAGE AREA.--116 mi^2.

PERIOD OF RECORD.--Discharge: July 1941 to current year.
Water-quality records: Water years 1954, 1967-74.

REVISED RECORDS.--WSP 1231: 1945-46.

GAGE.--Water-stage recorder. Datum of gage is 142.12 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 16-21, 23-30, Feb. 3-11. Records fair. Occasional diurnal fluctuation at low flow by mills upstream; greater regulation prior to 1969. Since 1962, high flow affected by retarding reservoirs and, since 1970, occasional release at low flow by these reservoirs. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--44 years, 186 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft^3/s Aug. 20, 1955, gage height, 8.94 ft; maximum gage height, 8.96 ft Aug. 20, 1955 (backwater from debris); minimum daily discharge, 0.20 ft^3/s Feb. 7, 1965. Maximum discharge since at least 1886, that of Aug. 20, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 403 ft^3/s Feb. 13, gage height, 3.39 ft; minimum daily, 25 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	32	56	78	132	59	182	154	89	116	99	178	195
2	87	54	70	139	63	168	187	85	123	91	257	201
3	104	47	67	158	63	158	202	125	112	79	332	177
4	108	46	83	150	62	142	188	202	92	74	294	113
5	86	55	92	141	61	167	172	238	85	69	201	94
6	64	70	116	127	59	190	168	211	92	69	128	88
7	50	73	135	120	59	205	153	222	84	63	93	89
8	43	63	139	115	61	199	178	176	84	54	79	88
9	40	59	124	100	63	202	213	158	78	50	73	86
10	39	57	109	99	64	208	222	139	73	47	66	104
11	38	94	103	94	66	198	195	124	62	44	64	126
12	36	213	107	89	75	245	174	112	63	38	58	149
13	34	263	117	87	224	312	161	104	74	43	51	116
14	34	234	117	84	325	342	152	93	71	42	47	93
15	33	176	111	84	356	296	144	83	66	48	45	78
16	32	141	101	77	292	252	141	81	68	45	46	66
17	32	111	103	72	221	216	134	79	99	43	41	62
18	30	92	87	72	193	209	126	90	109	39	37	57
19	29	84	91	71	149	205	120	107	122	36	36	54
20	29	72	110	69	150	199	116	123	118	28	37	52
21	28	68	103	67	148	198	112	114	79	26	40	49
22	32	65	143	64	146	194	115	176	71	30	50	45
23	60	61	180	63	153	183	119	223	70	30	44	44
24	87	58	202	62	177	171	114	206	72	28	43	56
25	94	57	196	61	217	166	109	152	65	25	49	105
26	75	56	179	60	228	157	107	117	69	38	79	122
27	72	64	151	60	211	149	100	97	69	51	92	159
28	72	51	130	59	196	142	98	97	85	47	91	185
29	68	64	126	58	---	137	96	120	94	55	84	213
30	65	76	134	58	---	137	98	126	96	49	76	199
31	61	---	140	56	---	133	---	109	---	53	164	---
TOTAL	1694	2680	3744	2748	4141	6062	4368	4178	2561	1533	2975	3265
MEAN	54.6	89.3	121	88.6	148	196	146	135	85.4	49.5	96.0	109
MAX	108	263	202	158	356	342	222	238	123	99	332	213
MIN	28	46	67	56	59	133	96	79	62	25	36	44

CAL YR 1984 TOTAL 94129 MEAN 257 MAX 1730 MIN 12
WTR YR 1985 TOTAL 39949 MEAN 109 MAX 356 MIN 25

01097300 NASHOBA BROOK NEAR ACTON, MASS.

LOCATION.--Lat 42°30'39", long 71°24'25", Middlesex County, Hydrologic Unit 01070005, on right bank 1,500 ft downstream from dam at North Acton, 2.2 mi northeast of Acton, and 5 mi upstream from mouth.

DRAINAGE AREA.--12.8 mi^2.

PERIOD OF RECORD.--Discharge: Occasional low-flow measurements, water years 1962-63. July 1963 to current year. Water quality records: Water years 1972-74, 1976-78.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 155 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: June 3 to July 5. Records good except those for estimated daily discharges, which are poor. Occasional regulation since 1967 by pond upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--22 years, 21.0 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 679 ft^3/s Jan. 26, 1979, gage height, 5.57 ft; maximum gage height, 5.73 ft, Jan. 26, 1979 (ice jam); minimum discharge, 0.02 ft^3/s Sept. 6, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72 ft^3/s Mar. 13, gage height, 3.32 ft; minimum, 0.70 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	1.5	3.1	7.1	12	5.1	12	14	7.0	8.8	6.0	13	21
2	3.7	3.1	6.2	15	5.1	12	21	6.7	9.6	4.5	21	9.0
3	4.9	2.8	5.8	21	5.1	12	22	11	9.0	3.7	8.4	6.0
4	4.2	2.7	9.4	17	5.1	10	19	30	7.4	3.2	5.6	4.8
5	3.1	2.9	9.5	13	5.1	9.4	16	24	5.8	2.9	4.6	4.1
6	2.4	4.9	9.8	11	5.1	14	15	15	6.2	2.8	3.9	6.9
7	2.1	4.7	19	9.9	5.1	15	14	17	5.8	2.8	3.4	18
8	2.0	3.9	16	9.4	5.1	14	18	18	5.8	2.6	3.1	17
9	2.0	3.4	11	8.7	5.1	20	27	13	5.4	2.3	3.1	8.9
10	2.0	3.2	9.0	7.7	5.1	26	21	11	5.0	2.2	2.9	12
11	2.1	7.3	9.9	7.2	5.1	25	16	9.9	4.3	1.9	2.5	13
12	2.1	34	12	6.8	5.5	35	14	8.9	4.4	1.6	2.1	8.1
13	1.7	38	14	6.7	27	67	13	8.8	5.0	1.7	2.0	6.1
14	1.3	21	14	6.4	54	58	12	8.3	4.9	2.2	1.5	5.5
15	1.0	11	12	6.3	40	40	12	7.9	4.5	4.6	1.2	5.0
16	.95	8.3	9.9	6.2	26	30	12	7.1	4.7	5.1	1.3	4.4
17	.95	7.1	9.6	5.5	18	24	12	6.9	6.0	3.2	1.5	4.1
18	.95	6.3	9.5	5.5	14	22	10	7.2	7.8	2.5	1.3	3.8
19	.89	5.8	9.2	5.5	12	20	11	9.2	8.4	1.9	1.2	3.5
20	.98	5.3	12	5.5	12	21	10	9.1	6.5	1.7	1.0	3.3
21	1.1	4.9	11	5.5	11	20	9.8	7.6	5.4	1.3	1.1	3.0
22	1.2	4.6	16	5.5	11	17	9.3	12	4.7	1.2	.99	2.8
23	3.2	4.6	30	5.5	13	17	9.3	13	5.0	1.7	.82	2.8
24	5.5	4.4	25	5.5	13	15	9.1	9.6	4.8	1.4	.77	3.4
25	3.8	4.4	20	5.5	15	15	8.8	7.8	4.5	1.1	1.2	20
26	3.2	4.5	17	5.5	19	14	8.7	7.0	4.4	1.3	5.9	31
27	3.6	4.6	12	5.5	16	13	8.2	6.6	5.0	9.2	7.4	16
28	3.7	4.6	10	5.5	14	13	8.1	6.1	6.0	7.5	4.3	22
29	3.4	5.3	10	5.5	---	13	8.4	9.2	7.0	4.2	2.9	22
30	3.4	8.4	14	5.4	---	13	8.2	9.0	7.4	3.4	3.0	12
31	3.2	---	14	5.1	---	12	---	8.8	---	2.7	16	---
TOTAL	76.12	229.1	393.9	246.3	376.6	648.4	396.9	332.7	179.5	94.4	128.98	299.5
MEAN	2.46	7.64	12.7	7.95	13.4	20.9	13.2	10.7	5.98	3.05	4.16	9.98
MAX	5.5	38	30	21	54	67	27	30	9.6	9.2	21	31
MIN	.89	2.7	5.8	5.1	5.1	9.4	8.1	6.1	4.3	1.1	.77	2.8

CAL YR 1984 TOTAL 9467.42 MEAN 25.9 MAX 262 MIN .89
WTR YR 1985 TOTAL 3402.40 MEAN 9.32 MAX 67 MIN .77

01097500 SUDBURY RIVER AT FRAMINGHAM CENTER, MASS.

LOCATION.--Lat 42°17'29", long 71°26'35", Middlesex County, Hydrologic Unit 01070005, at dam of Framingham Reservoir No. 1, 0.5 mi upstream from outlet of Farm Pond, and 0.8 mi southwest of Framingham Center.

DRAINAGE AREA.--75.2 mi^2, since January 1881.

PERIOD OF RECORD.--Discharge: January 1875 to current year.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1051: 1937. WDR MA-RI-77-1: 1976.

REMARKS.--Records adjusted for change in reservoir contents, diversions, and wastage. Flow diverted as needed for use of Boston metropolitan district. Part of flow from Wachusett Reservoir on Nashua River is diverted into Sudbury Reservoir en route to Boston metropolitan district.

COOPERATION.--Records provided by Water Division of Metropolitan District Commission.

AVERAGE DISCHARGE.--110 years, 117 ft^3/s, 21.13 in/yr, adjusted to present drainage area.

MONTHLY DISCHARGE, IN CUBIC FEET PER SECOND, AND RAINFALL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Month	Mean	Per square mile	Runoff in inches	Rainfall in inches
October	66.4	0.88	1.02	3.27
November	100	1.33	1.49	2.75
December	135	1.80	2.08	3.35
Calendar year 1984	213	2.83	38.59	47.31
January	96.6	1.28	1.48	.96
February	116	1.54	1.61	1.81
March	134	1.78	2.06	2.78
April	83.4	1.11	1.24	1.11
May	95.3	1.27	1.46	4.47
June	29.8	.40	.44	2.93
July	14.6	.19	.22	6.03
August	70.7	.94	1.08	3.64
September	62.8	.84	.93	3.85
Water year 1985	83.7	1.11	15.11	36.95

01098530 SUDBURY RIVER AT SAXONVILLE, MASS.

LOCATION.--Lat 42°19'31", long 71°23'53", Middlesex County, Hydrologic Unit 01070005, on left bank at downstream side of new Danforth Street Bridge, at Saxonville, 600 ft east of Elm Street, 700 ft downstream from confluence with Lake Cochituate Outlet, and 0.7 mi downstream from Saxonville Dam.

DRAINAGE AREA.--106 mi^2.

PERIOD OF RECORD.--November 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 110.55 ft above National Geodetic Vertical Datum of 1929 (Massachusetts Department of Public Works benchmark).

REMARKS.--Estimated daily discharges: Jan. 18, 20-23, 26-28, Feb. 4-6, 8-10, Aug. 1-26. Records good except those for Aug. 1-26, which are poor. Flow regulated by reservoirs upstream and affected by diversions and spill. Flow diverted as needed for use of Boston metropolitan district. Part of flow from Wachusett Reservoir on Nashua River is diverted into Sudbury Reservoir en route to Boston metropolitan district. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--5 years (water years 1981-85), 186 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft^3/s June 7, 1982, gage height, 13.30 ft; minimum daily, 9.5 ft^3/s Aug. 25, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 589 ft^3/s Aug. 1, gage height, 8.65 ft from peak stage indicator; minimum daily, 16 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	16	49	58	140	40	139	131	78	83	77	500	108
2	94	47	57	152	53	116	127	74	74	73	420	81
3	69	48	67	167	64	108	116	153	67	71	340	92
4	52	49	82	180	62	102	113	179	61	72	300	84
5	46	68	72	175	63	133	108	164	61	70	230	75
6	41	65	124	166	86	129	109	182	72	65	130	113
7	37	56	118	163	86	123	103	178	65	63	170	89
8	35	50	101	163	88	123	133	162	58	60	180	80
9	32	47	96	156	83	117	125	146	55	57	130	87
10	42	46	94	156	82	113	116	121	50	59	110	158
11	31	74	95	145	81	108	112	113	37	60	98	130
12	29	159	90	143	104	164	109	111	52	55	90	110
13	33	135	90	140	228	173	96	111	54	54	82	99
14	34	126	88	136	197	155	95	106	48	53	76	90
15	35	111	87	133	180	149	95	102	41	89	70	82
16	35	105	83	137	170	134	94	110	44	82	65	75
17	35	102	80	133	165	126	90	115	90	75	62	68
18	34	90	77	130	155	124	86	125	83	70	60	65
19	31	82	88	125	143	120	74	130	75	63	57	60
20	31	73	104	120	125	117	80	151	67	60	55	57
21	31	66	94	115	118	115	81	118	68	56	53	55
22	32	60	172	105	114	107	93	144	68	59	52	52
23	100	57	149	93	121	104	92	106	64	57	51	48
24	66	55	137	91	131	108	88	97	63	50	50	54
25	55	51	138	89	141	113	85	88	63	45	60	85
26	68	49	125	88	139	114	85	78	60	73	100	251
27	63	47	114	86	138	112	83	71	64	84	71	353
28	56	58	125	76	132	112	81	72	90	64	59	191
29	65	73	127	39	---	107	81	81	82	58	52	96
30	59	69	131	52	---	103	79	71	80	56	53	93
31	53	---	137	50	---	96	---	65	---	65	151	---
TOTAL	1440	2167	3200	3844	3289	3764	2960	3602	1939	1995	3977	3081
MEAN	46.5	72.2	103	124	117	121	98.7	116	64.6	64.4	128	103
MAX	100	159	172	180	228	173	133	182	90	89	500	353
MIN	16	46	57	39	40	96	74	65	37	45	50	48

CAL YR 1984 TOTAL 80077.7 MEAN 219 MAX 1230 MIN 9.7
WTR YR 1985 TOTAL 35258 MEAN 96.6 MAX 500 MIN 16

01099500 CONCORD RIVER BELOW RIVER MEADOW BROOK AT LOWELL, MASS.

LOCATION.--Lat 42°38'12", long 71°18'09", Middlesex County, Hydrologic Unit 01070005, on right bank 300 ft downstream from Rogers Street Bridge at Lowell, 0.3 mi downstream from River Meadow Brook, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--Total above gage, 400 mi^2; net above gage, 307 mi^2 - diversion as needed from 92.6 mi^2 for use of Boston metropolitan district.

PERIOD OF RECORD.--Discharge: October 1936 to current year. October, November 1936 monthly discharge only, published in WSP 1301.
Water-quality records: Water years 1953, 1967-74.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 67.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 8-10, 15, 16, 18, 20-22, 27, 28, 30, 31, and Feb. 3-10. Records excellent above 500 ft^3/s and good below. Low flow regulated by mills upstream. Daily discharge includes undiverted water from 92.6 mi^2 in basins of Sudbury River and Lake Cochituate. Prior to December 1961, diversion upstream for use of city of Lowell. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--49 years, 635 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,410 ft^3/s Jan. 28, 1979, gage height, 9.60 ft; minimum daily, 4.0 ft^3/s Sept. 29, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 871 ft^3/s Mar. 14, gage height, 5.69 ft; maximum gage height, 5.75 ft Jan. 16 (ice jam); minimum daily discharge, 86 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	86	228	294	534	217	613	483	309	376	317	336	495
2	175	219	293	564	215	580	517	297	363	306	446	510
3	234	200	297	582	220	544	550	341	355	288	524	509
4	251	190	322	583	220	518	569	478	333	267	588	490
5	242	209	324	571	225	527	563	548	302	248	608	432
6	227	230	381	556	225	526	559	592	291	230	577	454
7	207	236	467	536	230	542	540	647	295	213	516	470
8	188	237	498	495	245	568	561	632	285	196	456	434
9	169	232	499	450	250	595	583	615	277	181	403	406
10	155	227	484	440	255	611	598	593	260	170	348	432
11	152	294	474	422	248	622	605	546	230	162	301	442
12	146	490	472	405	259	736	578	491	219	154	255	449
13	135	571	477	394	516	828	551	465	238	151	223	443
14	128	603	466	387	599	857	527	425	246	151	199	409
15	132	621	455	375	687	862	510	393	232	171	177	363
16	132	599	442	360	737	847	483	361	221	176	172	336
17	127	553	432	340	762	814	445	337	268	175	155	306
18	125	501	406	325	757	772	431	339	305	170	142	280
19	126	443	388	317	732	762	417	356	329	164	134	259
20	122	401	405	315	698	720	400	380	323	148	131	258
21	119	349	411	310	663	672	383	408	301	134	127	217
22	126	309	497	305	638	644	380	459	268	134	123	194
23	194	282	578	303	620	620	385	488	250	129	124	185
24	227	258	620	293	621	590	389	509	241	124	119	205
25	249	242	649	282	631	551	379	500	224	120	136	329
26	261	233	650	276	642	531	365	449	211	141	189	350
27	265	226	609	270	645	523	346	408	211	236	220	386
28	264	225	568	265	625	508	338	379	271	207	238	483
29	259	248	555	258	---	488	331	373	300	205	239	536
30	251	280	547	240	---	467	325	370	317	190	281	570
31	240	---	538	225	---	455	---	360	---	189	419	---
TOTAL	5714	9936	14498	11978	13382	19493	14091	13848	8342	5847	8906	11612
MEAN	184	331	468	386	478	629	470	447	278	189	287	387
MAX	265	621	650	583	762	862	605	647	376	317	608	570
MIN	86	190	293	225	215	455	325	297	211	120	119	185

CAL YR 1984 TOTAL 359406 MEAN 982 MAX 3950 MIN 81
WTR YR 1985 TOTAL 137647 MEAN 377 MAX 862 MIN 86

01100000 MERRIMACK RIVER BELOW CONCORD RIVER, AT LOWELL, MASS.

LOCATION.--Lat 42°38'45", long 71°17'56", Middlesex County, Hydrologic Unit 01070002, on right bank at Lowell, 1,100 ft downstream from Concord River.

DRAINAGE AREA.--Total above gage, 4,635 mi^2; net above gage, 4,425 mi^2 - diversions as needed from 210 mi^2 for use of Boston metropolitan district and city of Worcester.

PERIOD OF RECORD.--Discharge: June 1923 to current year.
Water-quality records: Water years 1954, 1966-74.

GAGE.--Water-stage recorder. Datum of gage is 5.18 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 7, 1934, at Boott Mills, 1,800 ft upstream and 700 ft above mouth of Concord River, in same gage pool and at same datum; gage-height record (provided by Proprietors of the Locks and Canals on Merrimack River) was indicative of flow including that of Concord River.

REMARKS.--No estimated daily discharges. Records excellent except those below 1,500 ft^3/s, which are fair. Daily discharge includes water released from 210 mi^2 in basins of Sudbury and Nashua Rivers and Lake Cochituate. Flow regulated by powerplants, by Franklin Falls Reservoir since 1942, and by Squam, Newfound, Winnipesaukee, Winnisquam, and other lakes and reservoirs upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--62 years, 7,562 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 173,000 ft^3/s Mar. 20, 1936, gage height, 68.4 ft, from floodmarks; minimum daily, 199 ft^3/s Sept. 23, 1923.
Maximum discharge since 1735, that of Mar. 20, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,300 ft^3/s Mar. 14, gage height, 47.66 ft; minimum daily, 298 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	1650	2480	3550	9280	3000	10900	10700	5830	3770	4720	2160	1740
2	2220	3020	3990	9040	3200	9610	9760	5490	3670	3870	2470	2900
3	2450	1940	4120	7880	2820	9050	9040	6080	3220	3470	2620	2800
4	2810	1530	3920	7200	2810	8420	8710	5950	3050	2710	1580	2390
5	3070	3040	3800	7050	2340	7660	8390	5540	3300	2090	2580	2130
6	2720	3800	4000	6050	2230	7720	8020	5360	3380	2010	2240	2770
7	2600	3360	3850	6560	2340	7550	8480	6310	2770	2010	1960	4010
8	2470	3350	3910	5660	2930	7800	8820	7480	2640	2170	1750	5740
9	2200	3090	3860	6260	2590	7570	10000	8670	2910	2020	1740	5320
10	2330	2920	3840	6060	2180	7890	9640	7930	2610	2110	1660	4710
11	2140	3070	3800	3910	2750	7830	8680	6060	2480	1920	1450	4520
12	2090	4230	3810	3910	2870	9750	7790	6050	2390	1680	1680	4240
13	2280	6590	3820	4280	5080	17700	7220	5600	2250	1590	1860	3810
14	1020	7770	3890	4480	7060	23500	6730	6490	2160	1610	1610	3800
15	2520	7250	4470	4380	9700	22500	6590	4920	2330	2110	1490	3760
16	2530	5520	5270	6060	9390	19100	6340	5120	2140	1900	1440	3430
17	2540	4840	4660	4150	8490	16100	6490	4650	2620	1900	997	2660
18	2520	3410	4420	3910	7660	14100	7470	4330	2590	1770	404	2390
19	2420	4800	4720	3800	6820	12800	8450	4200	2650	1730	1640	1860
20	1560	4070	5320	3620	6070	11500	7870	8240	3260	1530	1530	2010
21	1230	3730	5030	4600	5740	10300	7440	8110	2310	1580	1440	1810
22	2080	3540	5520	4480	5330	9970	7910	6990	2220	1840	1280	1100
23	2260	3160	5550	3310	5090	9410	7820	5970	2120	1640	1380	1880
24	2100	3110	5330	3340	6080	8820	8770	5560	2200	1450	1090	1800
25	2130	2620	5700	3180	7640	8310	8960	5350	2290	1320	298	2210
26	2430	2270	5550	3220	10100	8270	8540	4310	1920	1320	1760	2220
27	2770	2580	4560	3330	12700	7660	7600	4130	1990	1180	1820	2740
28	1170	2640	4090	3230	11700	6370	7730	3880	2690	1260	1800	4380
29	3660	2770	4560	3030	---	7490	7720	3800	2770	1980	1660	6160
30	3190	3300	5560	2910	---	8780	6810	4140	3250	1440	2240	8010
31	2840	---	7920	2930	---	11000	---	4330	---	1520	1960	---
TOTAL	72000	109800	142390	151100	156710	335430	244490	176870	79950	61450	51589	99300
MEAN	2323	3660	4593	4874	5597	10820	8150	5705	2665	1982	1664	3310
MAX	3660	7770	7920	9280	12700	23500	10700	8670	3770	4720	2620	8010
MIN	1020	1530	3550	2910	2180	6370	6340	3800	1920	1180	298	1100

CAL YR 1984 TOTAL 3921097 MEAN 10710 MAX 59500 MIN 323
WTR YR 1985 TOTAL 1681079 MEAN 4606 MAX 23500 MIN 298

01100600 SHAWSHEEN RIVER NEAR WILMINGTON, MASS.

LOCATION.--Lat 42°34'05", long 71°12'55", Middlesex County, Hydrologic Unit 01070002, on right bank at downstream side of bridge on State Highway 129, 1 mi upstream from Content Brook, and 2.5 mi northwest of Wilmington.

DRAINAGE AREA.--36.5 mi².

PERIOD OF RECORD.--Discharge: November 1963 to current year.
Water-quality records: Water year 1973.

REVISED RECORDS.--WDR MA-NH-RI-VT-74-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 80.44 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 2-5. Records good except those for estimated daily discharges, which are fair. Diversion upstream at times each year since 1973 for municipal supply of Burlington; see table below for figures of diversion. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--21 years (water years 1965-85), 61.2 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,660 ft³/s Jan. 26, 1979, gage height: 9.85 ft, mean of recorded surge; 10.00 ft, maximum recorded surge; and about 10.4 ft in river, based on outside gage readings at slightly lower stages. Minimum discharge, 0.70 ft³/s Aug. 19, 1983.

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

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 14	1515	*245	*4.82				

Minimum discharge, 2.0 ft³/s July 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	9.2	11	18	25	13	30	40	22	23	39	50	167
2	27	9.7	15	34	15	27	55	16	31	22	131	143
3	49	8.9	13	43	16	27	58	29	21	14	144	84
4	54	7.9	29	40	15	24	62	66	15	12	86	47
5	48	11	31	35	15	27	53	84	13	9.2	53	25
6	29	27	32	34	15	46	48	74	22	7.0	32	26
7	16	20	47	26	15	47	42	49	25	5.7	20	49
8	14	15	60	20	16	41	50	39	17	5.6	17	82
9	12	12	58	18	16	51	71	28	13	5.4	17	77
10	11	11	40	17	16	57	77	21	12	6.0	18	65
11	11	14	32	14	16	57	65	18	14	21	15	67
12	9.2	50	34	13	17	63	47	17	16	30	13	71
13	3.8	73	35	12	87	110	40	16	25	30	12	57
14	3.4	86	32	12	214	153	36	14	24	25	11	41
15	3.1	64	27	12	194	116	35	12	20	29	9.8	27
16	2.8	36	23	11	129	82	34	12	17	36	10	19
17	2.5	24	21	8.9	86	59	32	12	33	32	11	16
18	2.4	19	21	8.7	53	48	30	16	43	21	9.4	14
19	7.5	17	20	8.8	38	44	31	31	42	13	8.2	12
20	2.8	14	29	9.2	37	42	31	24	25	7.2	3.5	12
21	3.0	13	29	9.2	34	39	28	20	14	4.7	7.8	11
22	7.0	11	39	8.3	33	36	29	44	10	8.5	7.7	9.2
23	20	11	60	8.2	36	34	36	54	11	11	7.3	8.2
24	38	11	74	8.5	43	33	33	39	17	7.1	7.0	8.8
25	36	11	73	8.7	48	33	30	21	12	3.8	9.5	26
26	29	11	54	8.7	50	37	28	16	9.4	4.9	26	34
27	29	11	41	8.7	45	35	26	15	9.5	39	30	34
28	23	10	26	11	35	36	24	19	24	57	29	39
29	23	13	26	15	---	35	25	38	40	59	18	44
30	23	23	31	14	---	34	24	29	45	41	12	38
31	14	---	29	13	---	32	---	19	---	18	66	---
TOTAL	562.7	655.5	1099	514.9	1347	1535	1220	914	642.9	624.1	891.2	1353.2
MEAN	18.2	21.8	35.5	16.6	48.1	49.5	40.7	29.5	21.4	20.1	28.7	45.1
MAX	54	86	74	43	214	153	77	84	45	59	144	167
MIN	2.4	7.9	13	8.2	13	24	24	12	9.4	3.8	3.5	8.2
(†)	2.69	6.01	5.79	5.30	0	5.22	0	9.48	4.83	4.05	2.29	3.42

CAL YR 1984 TOTAL 33048.2 MEAN 90.3 MAX 862 MIN 2.4
WTR YR 1985 TOTAL 11359.5 MEAN 31.1 MAX 214 MIN 2.4

† Diversion, in cubic feet per second, for municipal supply of Burlington; records provided by town of Burlington.

01101000 PARKER RIVER AT BYFIELD, MASS.

LOCATION.--Lat 42°45'10", long 70°56'46", Essex County, Hydrologic Unit 01090001, on left bank 1,400 ft downstream from dam, 0.5 mi south of Byfield, 0.7 mi upstream from Wheeler Brook, and 5.5 mi southwest of Newburyport.

DRAINAGE AREA.--21.3 mi^2.

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

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 23.46 ft above National Geodetic Vertical Datum of 1929 (levels by Massachusetts Department of Public Works).

REMARKS.--Estimated daily discharges: Dec. 27, Jan. 6. Records good. Occasional regulation by mill and ponds upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--40 years, 36.9 ft^3/s, 23.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 489 ft^3/s Mar. 19, 1968, gage height, 5.61 ft; maximum gage height, 5.70 ft, Oct. 29, 1975 (backwater from coffer dam); minimum daily discharge, 0.09 ft^3/s Sept. 25-30, Oct. 3-6, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81 ft^3/s Mar. 14, gage height, 2.66 ft; minimum daily, 0.44 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	.44	8.6	14	30	8.3	38	29	15	13	9.5	5.2	11
2	1.9	8.1	13	33	8.5	36	31	14	13	8.5	8.4	14
3	5.6	7.8	13	33	8.9	33	33	17	11	6.9	8.4	14
4	9.6	7.7	17	32	8.6	30	34	22	9.8	6.6	7.7	13
5	9.4	9.7	17	30	8.3	29	34	25	8.3	5.9	6.7	11
6	7.9	12	22	26	9.1	29	33	27	8.6	5.0	5.6	22
7	6.8	12	27	24	9.0	30	32	31	9.5	4.3	4.2	29
8	6.6	11	28	22	9.1	32	33	32	9.1	5.3	4.3	39
9	5.4	10	28	20	8.8	36	33	31	8.3	4.3	3.9	44
10	4.3	10	28	20	8.6	40	32	29	7.6	2.5	9.7	44
11	4.3	16	29	19	8.6	43	32	27	6.0	2.1	8.0	40
12	4.3	27	30	17	9.2	56	30	24	5.9	1.8	5.6	36
13	4.0	32	30	16	25	69	28	22	7.1	1.6	4.0	31
14	3.7	35	29	14	31	79	27	20	7.5	1.6	3.0	27
15	3.5	35	28	14	43	80	26	18	6.6	1.6	2.3	24
16	3.5	33	26	12	51	74	25	17	6.3	1.7	2.1	21
17	3.3	30	26	11	52	69	24	16	11	1.6	1.6	18
18	2.8	26	25	11	47	64	21	16	11	1.6	1.3	16
19	2.7	23	25	10	44	60	20	16	11	1.5	1.2	14
20	2.7	20	25	10	40	55	20	16	9.6	1.5	1.1	11
21	2.6	17	25	10	36	51	19	16	8.5	1.5	1.0	9.8
22	2.5	15	31	10	33	46	19	16	7.4	1.6	.97	8.6
23	6.2	14	35	10	35	43	19	16	7.1	1.5	.93	6.9
24	6.4	13	38	9.3	38	40	19	16	9.0	1.3	.84	5.7
25	7.0	12	41	9.2	43	38	18	15	7.1	.76	.88	8.2
26	7.3	11	38	9.1	44	35	18	14	4.7	.60	1.1	9.0
27	7.7	10	33	9.0	44	31	17	13	4.5	.87	.95	11
28	7.7	9.9	30	8.7	41	29	17	14	7.5	.87	.84	12
29	9.4	12	30	8.7	---	28	16	14	9.5	.84	.78	12
30	9.6	14	32	8.4	---	27	16	13	10	.87	1.7	13
31	9.3	---	30	8.1	---	25	---	12	---	1.1	6.7	---
TOTAL	168.44	501.8	843	504.5	752.0	1375	755	594	255.5	87.21	110.99	575.2
MEAN	5.43	16.7	27.2	16.3	26.9	44.4	25.2	19.2	8.52	2.81	3.58	19.2
MAX	9.6	35	41	33	52	80	34	32	13	9.5	9.7	44
MIN	.44	7.7	13	8.1	8.3	25	16	12	4.5	.60	.78	5.7
CFSM	.25	.78	1.28	.77	1.26	2.08	1.18	.90	.40	.13	.17	.90
IN.	.29	.88	1.47	.88	1.31	2.40	1.32	1.04	.45	.15	.19	1.00

CAL YR 1984 TOTAL 19706.71 MEAN 53.8 MAX 255 MIN .34 CFSM 2.53 IN. 34.42
WTR YR 1985 TOTAL 6522.64 MEAN 17.9 MAX 80 MIN .44 CFSM .84 IN. 11.39

01101500 IPSWICH RIVER AT SOUTH MIDDLETON, MASS.

LOCATION.--Lat 42°34'10", long 71°01'39", Essex County, Hydrologic Unit 01090001, on right bank in Peabody, 700 ft downstream from Boston Street Bridge at South Middleton, 1.3 mi downstream from Wills Brook, and 2 mi south of Middleton.

DRAINAGE AREA.--44.5 mi^2.

PERIOD OF RECORD.--Discharge: June 1938 to current year.
Water-quality records: Water years 1957, 1959.

REVISED RECORDS.--WSP 1301: 1942(M). WSP 1621: 1938-58 (monthly runoff). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 44.97 ft above National Geodetic Vertical Datum of 1929 (Massachusetts Geodetic Survey benchmark.)

REMARKS.--No estimated daily discharges. Records fair. Diversions upstream for municipal supply of Reading, Lynn, and Peabody. Occasional regulation by mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--47 years, 62.6 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 839 ft^3/s Jan. 26, 1979, gage height, 7.12 ft; minimum, 0.1 ft^3/s Sept. 24, Oct. 1, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 154 ft^3/s Mar. 13, gage height, 2.94 ft, minimum, 0.49 ft^3/s Feb. 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	1.3	24	23	60	9.3	41	28	18	38	33	85	88
2	13	23	20	67	9.7	37	40	12	27	8.6	90	70
3	22	21	21	71	10	31	37	36	8.4	13	76	65
4	11	19	37	64	10	24	35	70	5.1	31	67	62
5	7.7	27	36	62	6.6	44	34	65	9.6	23	60	50
6	6.2	38	54	52	2.6	53	33	63	19	17	50	60
7	5.1	35	76	46	6.1	51	30	76	22	15	38	78
8	5.0	31	70	21	2.4	52	60	78	19	13	31	74
9	4.5	30	66	14	9.6	51	73	73	17	11	26	67
10	4.2	30	65	20	9.7	58	54	68	15	12	21	78
11	3.7	39	68	30	7.7	58	50	58	8.2	13	17	80
12	3.4	74	70	24	4.3	88	46	27	2.5	12	15	73
13	3.0	72	69	22	61	132	39	23	11	11	13	64
14	2.9	66	65	20	52	123	26	19	4.2	10	10	55
15	3.3	62	61	19	48	113	20	16	12	12	8.6	43
16	3.7	58	55	16	49	109	30	21	12	12	8.7	29
17	3.5	52	53	13	49	102	15	20	30	10	7.9	20
18	3.4	45	49	13	50	95	13	20	35	8.7	6.6	14
19	3.3	39	47	13	49	86	13	22	23	7.7	6.4	10
20	3.2	32	50	12	48	79	13	10	11	6.6	6.4	7.2
21	3.0	27	48	12	41	76	12	18	13	5.5	5.8	4.2
22	3.5	22	66	12	40	76	30	26	6.3	8.7	5.2	7.5
23	13	19	83	11	50	55	33	22	16	9.0	4.5	12
24	23	17	81	11	71	48	13	15	18	6.6	3.9	6.0
25	17	15	83	11	73	43	12	12	15	5.2	5.5	16
26	20	15	79	11	55	36	20	9.2	13	12	11	5.6
27	23	13	69	10	53	31	20	11	15	68	13	13
28	22	13	63	9.9	48	27	11	33	39	55	10	30
29	25	18	59	9.7	---	24	25	37	53	33	8.2	31
30	28	25	65	9.7	---	21	24	13	46	22	15	24
31	26	---	62	9.4	---	18	---	17	---	22	98	---
TOTAL	316.9	1001	1813	775.7	925.0	1882	889	1008.2	563.3	526.6	823.7	1236.5
MEAN	10.2	33.4	58.5	25.0	33.0	60.7	29.6	32.5	18.8	17.0	26.6	41.2
MAX	28	74	83	71	73	132	73	78	53	68	98	88
MIN	1.3	13	20	9.4	2.4	18	11	9.2	2.5	5.2	3.9	4.2

CAL YR 1984 TOTAL 37256.64 MEAN 102 MAX 686 MIN .94
WTR YR 1985 TOTAL 11760.9 MEAN 32.2 MAX 132 MIN 1.3

01102000 IPSWICH RIVER NEAR IPSWICH, MASS.

LOCATION.--Lat 42°39'35", long 70°53'39", Essex County, Hydrologic Unit 01090001, on left bank 200 ft downstream from Willowdale Dam, 1.5 mi downstream from Howlett Brook, and 4 mi upstream from Ipswich.

DRAINAGE AREA.--125 mi^2.

PERIOD OF RECORD.--Discharge: June 1930 to current year.
Water-quality records: Water years 1954, 1976-79.

REVISED RECORDS.--WSP 1621: 1930-58 (monthly runoff). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 20.63 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversions upstream for municipal supply of Reading, Lynn, Peabody, Danvers, Salem,and Beverly. Some regulation by reservoirs upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--55 years, 188 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,680 ft^3/s Mar. 20, 21, 1968, gage height, 8.41 ft; minimum, 0.34 ft^3/s Sept. 20, 1978.
Maximum discharge since 1886, that of Mar. 20, 21, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 289 ft^3/s Mar. 16, gage height, 4.12 ft, minimum, 4.4 ft^3/s Oct. 1; minimum daily, 5.0 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	5.0	39	53	116	36	136	125	57	63	93	72	109
2	37	35	53	117	36	127	121	57	66	91	86	129
3	64	30	55	118	37	117	115	67	65	83	99	137
4	68	37	66	114	38	105	110	95	57	68	109	135
5	65	33	71	111	38	96	107	115	46	51	112	126
6	52	38	88	95	38	92	108	127	43	43	105	136
7	37	40	102	101	36	95	111	140	45	39	95	152
8	29	40	106	86	35	104	118	136	44	33	84	167
9	23	38	110	68	37	117	125	132	42	29	73	171
10	20	36	110	65	39	132	134	130	40	27	61	174
11	19	39	109	46	39	142	142	131	36	26	50	169
12	17	71	108	37	41	171	144	127	35	27	39	161
13	16	90	107	36	66	203	141	122	40	28	31	154
14	15	101	104	33	80	237	134	114	42	29	25	150
15	14	107	100	29	98	271	125	104	40	27	21	140
16	13	110	94	26	112	288	116	90	37	26	19	127
17	12	108	90	23	127	281	105	75	45	25	17	114
18	12	104	83	35	139	266	97	65	55	23	15	99
19	12	96	77	44	143	253	89	67	62	22	14	84
20	12	86	75	46	139	248	82	64	61	20	14	68
21	11	75	74	45	134	239	75	40	58	17	14	50
22	11	65	90	48	131	229	56	63	48	17	13	38
23	24	58	108	47	136	216	50	80	38	14	11	30
24	29	53	120	45	140	206	54	80	34	12	9.6	30
25	29	49	132	44	142	192	51	72	34	11	10	43
26	33	47	138	43	144	179	42	62	33	13	13	50
27	35	44	126	42	147	167	52	51	36	24	16	63
28	34	43	128	41	143	156	62	49	58	34	18	52
29	35	46	127	40	---	145	63	58	79	44	19	52
30	37	51	126	39	---	135	59	65	89	50	27	54
31	42	---	120	37	---	125	---	61	---	49	83	---
TOTAL	862.0	1809	3050	1817	2471	5470	2913	2696	1471	1095	1374.6	3164
MEAN	27.8	60.3	98.4	58.6	88.3	176	97.1	87.0	49.0	35.3	44.3	105
MAX	68	110	138	118	147	288	144	140	89	93	112	174
MIN	5.0	30	53	23	35	92	42	40	33	11	9.6	30

CAL YR 1984 TOTAL 107783.3 MEAN 294 MAX 1930 MIN 5.0
WTR YR 1985 TOTAL 28192.6 MEAN 77.2 MAX 288 MIN 5.0

01102500 ABERJONA RIVER AT WINCHESTER, MASS.

LOCATION.--Lat 42°26'50", long 71°08'22", Middlesex County, Hydrologic Unit 01090001, on left bank at Winchester, 0.5 mi upstream from head of Mystic Lakes.

DRAINAGE AREA.--24.1 mi^2, excludes 0.6 mi^2 drained by Winchester North Reservoir.

PERIOD OF RECORD.--Discharge: April 1939 to current year.
Water-quality records: Water year 1958-59, 1973.

REVISED RECORDS.--WDR MA-RI-79-1: 1955. WDR MA-RI-84-1: Drainage area.

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

REMARKS.--No estimated daily discharges. Records excellent above 10 ft^3/s and good below. Flow affected by diversions for industrial use and for municipal supply of Woburn and Winchester, and by wastage and leakage from Winchester North Reservoir. Some regulation by Winchester at dam 1,800 ft upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 28.5 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,330 ft^3/s Jan. 25, 1979, gage height, 15.46 ft, from rating curve extended above 400 ft^3/s on basis of slope-area measurement of peak flow; no flow for part of Oct. 10, 12, 1950, caused by pumpage from gage pool; minimum daily discharge, 0.25 ft^3/s Oct. 10, 1950.
Maximum discharge since 1886, that of Jan. 25, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 300 ft^3/s Aug. 1, gage height, 12.42 ft, minimum, 1.6 ft^3/s Oct. 21, minimum daily, 1.7 ft^3/s Oct. 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	3.6	4.8	7.7	21	7.2	16	35	9.3	33	10	190	59
2	82	5.0	6.1	30	9.5	15	32	7.4	18	8.6	84	29
3	43	3.8	13	28	8.8	14	25	47	11	10	36	20
4	17	3.8	20	23	7.7	13	22	48	8.2	7.9	24	16
5	8.6	16	12	20	7.1	26	21	26	10	5.7	19	13
6	6.0	13	49	17	7.7	27	19	22	15	5.3	15	51
7	5.3	7.6	43	17	7.5	22	17	25	10	5.3	12	58
8	5.0	5.8	22	16	6.9	24	48	21	9.8	6.7	15	37
9	4.7	5.3	15	14	6.5	26	42	16	8.2	5.3	15	27
10	4.7	5.2	16	12	6.8	24	30	12	7.0	25	11	79
11	4.4	30	18	11	7.7	22	24	9.9	6.2	53	9.4	41
12	3.8	73	16	11	17	68	21	9.5	25	19	8.3	26
13	3.8	36	15	10	122	79	19	11	18	12	6.9	20
14	3.4	18	14	10	67	51	18	10	12	17	6.4	17
15	3.6	12	13	9.9	38	38	18	9.3	7.4	39	6.1	15
16	3.9	12	12	8.7	27	32	17	9.3	9.0	21	5.8	13
17	4.5	9.1	13	8.2	22	28	16	8.7	38	13	5.3	12
18	3.4	7.9	12	8.4	19	30	14	14	20	9.0	4.7	10
19	3.8	7.3	16	8.7	17	28	15	15	14	7.0	5.2	9.6
20	2.8	6.5	20	8.6	17	27	14	10	9.1	5.5	5.8	9.2
21	1.7	6.3	15	7.8	15	25	13	15	7.0	4.6	4.9	8.3
22	3.9	5.6	65	7.6	15	22	18	34	5.8	12	4.6	6.9
23	36	5.7	48	7.7	18	21	18	18	8.1	7.9	4.5	6.5
24	15	5.7	32	7.6	19	21	16	11	11	13	4.1	7.8
25	8.0	5.5	28	8.2	19	19	15	9.2	8.0	6.3	17	34
26	10	5.5	23	8.1	18	18	13	7.8	6.2	36	27	30
27	8.3	5.4	19	7.7	17	17	12	8.9	11	71	19	34
28	6.1	5.4	18	7.6	15	17	11	18	39	34	12	35
29	10	15	19	7.4	---	17	12	21	25	17	8.1	22
30	7.3	11	19	6.9	---	16	10	12	15	12	22	16
31	5.5	---	18	6.6	---	16	---	9.0	---	23	111	---
TOTAL	329.1	353.2	656.8	375.7	565.4	819	605	504.3	425.0	522.1	719.1	762.3
MEAN	10.6	11.8	21.2	12.1	20.2	26.4	20.2	16.3	14.2	16.8	23.2	25.4
MAX	82	73	65	30	122	79	48	48	39	71	190	79
MIN	1.7	3.8	6.1	6.6	6.5	13	10	7.4	5.8	4.6	4.1	6.5

CAL YR 1984 TOTAL 17600.2 MEAN 48.1 MAX 613 MIN 1.7
WTR YR 1985 TOTAL 6637.0 MEAN 18.2 MAX 190 MIN 1.7

01103500 CHARLES RIVER AT DOVER, MASS.
(National stream-quality accounting network station)

LOCATION.--Lat 42°15'22", long 71°15'38", Norfolk County, Hydrologic Unit 01090001, on right bank 0.3 mi downstream from highway bridge, 0.8 mi downstream from Noanet Brook, and 1.3 mi northeast of intersection of Centre and Walpole Streets in Dover.

DRAINAGE AREA.--183 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1977, published as "at Charles River Village."

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 89.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 21 and Feb. 4. Records good. Flow affected by diversions to and from basin for municipal supplies.

AVERAGE DISCHARGE.--48 years, 302 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,220 ft^3/s Aug. 23, 1955, gage height, 9.24 ft and Mar. 22, 1968, gage height, 8.72 ft; minimum, 0.5 ft^3/s Oct. 24, 1952 (caused by unusual regulation); minimum daily, 0.9 ft^3/s Oct. 24, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since flood in 1886, that of August 1955 and March 1968. Flood in March 1936 reached a discharge of 3,170 ft^3/s, by computation of flow over dam at site 0.2 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 550 ft^3/s Aug. 1, gage height, 2.49 ft; minimum, 34 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	57	143	126	200	74	230	169	100	128	118	417	115
2	127	131	125	200	76	210	205	95	133	111	372	124
3	135	117	121	199	77	193	226	150	136	106	359	127
4	134	109	132	197	80	180	227	255	121	102	322	118
5	123	112	143	187	82	199	217	304	111	86	301	104
6	107	113	198	172	84	229	201	336	113	79	258	108
7	94	114	209	158	80	255	179	342	115	71	198	104
8	85	112	215	145	83	262	204	323	115	63	151	96
9	77	105	207	129	86	257	228	300	108	56	126	90
10	74	99	193	131	85	251	239	266	95	54	108	158
11	70	103	189	124	82	238	234	221	81	52	97	190
12	64	180	193	116	85	258	210	187	86	49	93	202
13	61	244	195	111	192	302	190	177	88	49	87	194
14	59	275	189	107	250	332	179	168	86	47	77	172
15	57	285	179	106	301	349	169	161	85	70	68	140
16	54	265	164	97	340	338	163	149	85	62	60	114
17	54	220	153	92	352	315	152	136	131	60	54	95
18	52	180	141	90	338	281	149	133	155	60	48	84
19	51	150	141	89	317	254	143	149	164	58	45	75
20	51	131	156	90	293	238	136	167	153	53	43	68
21	51	118	166	91	260	217	129	173	128	48	40	63
22	51	109	218	92	243	206	137	172	104	52	39	57
23	82	101	258	87	239	194	143	147	90	46	38	55
24	90	95	285	85	251	184	148	133	79	43	36	58
25	107	91	298	84	268	175	144	119	70	40	48	65
26	123	88	284	84	277	165	136	102	66	62	59	78
27	116	86	250	84	277	156	124	92	67	62	61	115
28	122	85	213	82	251	147	120	91	87	67	70	89
29	140	104	200	81	---	140	113	104	98	73	76	87
30	148	118	199	79	---	137	109	109	113	70	81	87
31	156	---	202	76	---	137	---	107	---	71	123	---
TOTAL	2772	4183	5942	3665	5423	7029	5123	5468	3191	2040	3955	3232
MEAN	89.4	139	192	118	194	227	171	176	106	65.8	128	108
MAX	156	285	298	200	352	349	239	342	164	118	417	202
MIN	51	85	121	76	74	137	109	91	66	40	36	55

CAL YR 1984 TOTAL 159735 MEAN 436 MAX 2290 MIN 46
WTR YR 1985 TOTAL 52023 MEAN 143 MAX 417 MIN 36

01103500 CHARLES RIVER AT DOVER, MASS.--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981.
WATER TEMPERATURES: November 1974 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)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	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												
22...	1230	52	210	--	18.0	15.0	--	--	--	--	--	--
NOV												
07...	1430	107	210	7.04	9.0	9.0	--	760	10.4	90	220	180
DEC												
04...	1050	129	210	--	5.0	4.0	--	--	--	--	--	--
JAN												
11...	1000	119	58	--	-5.0	0.0	--	--	--	--	--	--
FEB												
19...	0705	321	230	--	2.0	1.0	--	--	--	--	--	--
MAR												
13...	1430	306	165	7.05	7.0	5.0	1.5	753	9.8	78	K150	73
APR												
01...	0735	165	210	--	2.0	9.5	--	--	--	--	--	--
MAY												
13...	0843	177	172	--	15.0	17.5	--	--	--	--	--	--
JUN												
04...	1530	119	225	7.92	--	23.0	2.3	766	8.5	99	K23	K2900
JUL												
01...	0949	126	202	--	21.0	18.0	--	--	--	--	--	--
AUG												
15...	0900	69	189	6.93	25.0	25.5	1.0	761	6.9	84	K23	150
19...	1030	46	200	--	22.0	23.0	--	--	--	--	--	--

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD 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)	CAR-BONATE IT-FLD (MG/L AS CO3)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3
OCT												
22...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
07...	--	--	--	--	--	--	--	--	0	20	16	--
DEC												
04...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
11...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
19...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
13...	32	18	9.2	2.2	23	59	2	1.7	0	17	14	16
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	39	14	11	2.7	23	55	2	1.9	0	31	25	26
JUL												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
15...	38	14	11	2.6	21	53	2	2.4	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--

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

01103500 CHARLES RIVER AT DOVER, MASS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT 22...	--	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--	--
FEB 19...	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	14	39	<0.1	5.6	130	100	--	--	--	--	--
APR 01...	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	13	36	0.1	0.7	132	100	0.57	0.03	0.7	0.21	0.10
JUL 01...	--	--	--	--	--	--	--	--	--	--	--
AUG 15...	10	33	0.2	7.6	136	100	0.60	0.07	0.7	0.45	0.37
19...	--	--	--	--	--	--	--	--	--	--	--

DATE	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT 22...	--	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--	--
FEB 19...	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	50	1	23	<0.5	2	2	<3	8	170	3
APR 01...	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	0.11	--	<1	19	2	<1	10	<3	4	320	2
JUL 01...	--	--	--	--	--	--	--	--	--	--	--
AUG 15...	0.35	--	1	25	<0.5	2	10	<3	5	580	5
19...	--	--	--	--	--	--	--	--	--	--	--

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

01103500 CHARLES RIVER AT DOVER, MASS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)
OCT											
22...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
04...	--	--	--	--	--	--	--	--	--	--	--
JAN											
11...	--	--	--	--	--	--	--	--	--	--	--
FEB											
19...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	<4	44	<0.1	<10	3	<1	<1	54	<6	29	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
MAY											
13...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	18	43	<0.1	<10	5	<1	<1	64	<6	14	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG											
15...	5	97	0.3	<10	4	<1	<1	68	<6	19	8
19...	--	--	--	--	--	--	--	--	--	--	--

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

01104000 MOTHER BROOK AT DEDHAM, MASS.

LOCATION.--Lat 42°15'18", long 71°09'53", Norfolk County, Hydrologic Unit 01090001, on right bank 100 ft upstream from Washington Street Bridge at Dedham and 0.4 mi downstream from point of diversion from Charles River.

PERIOD OF RECORD.--Discharge: October 1931 to current year.
Water-quality records: Water years 1959, 1969-70.

REVISED RECORDS.--WSP 1301: 1932(M).

GAGE.--Water-stage recorder. Concrete control since June 10, 1960. Datum of gage is 0.03 ft below National Geodetic Vertical Datum of 1929. Dec. 9, 1931, to June 9, 1960, nonrecording gage at site 200 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Mother Brook is a diversion from Charles River to Neponset River through Dedham and Hyde Park. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--54 years, 78.4 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft^3/s Mar. 21, 1968, gage height, 87.18 ft; maximum gage height, 92.90 ft Aug. 24, 1955, from graph based on gage readings; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 236 ft^3/s Aug. 1, gage height, 82.40 ft; minimum, 0.11 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	3.4	24	16	16	5.4	33	30	14	14	9.5	187	10
2	30	19	15	15	4.9	22	43	12	9.6	14	145	5.7
3	16	13	14	21	4.4	17	45	36	9.3	16	115	4.5
4	9.5	8.3	22	41	4.0	13	49	61	16	14	79	4.3
5	8.1	9.0	21	43	8.6	25	44	65	15	5.1	52	13
6	14	7.6	39	33	9.7	57	35	87	14	2.0	30	15
7	7.4	5.8	44	26	9.1	62	29	115	11	.80	11	12
8	3.6	4.7	37	22	7.3	67	39	106	13	.66	6.3	7.0
9	3.2	9.6	32	16	5.1	65	46	78	10	2.1	2.2	8.0
10	5.5	4.6	26	16	5.2	52	64	59	7.3	3.7	.45	27
11	4.6	7.0	23	16	6.6	49	62	39	3.6	3.2	.80	47
12	3.5	19	21	18	8.9	87	53	24	3.1	2.1	.28	49
13	4.1	28	19	15	45	123	39	21	2.2	2.4	.44	54
14	3.8	66	17	13	30	120	29	32	1.0	1.5	.52	46
15	2.6	80	14	13	38	124	22	26	.39	7.0	.48	30
16	1.5	82	9.5	11	45	117	19	18	.61	6.9	.42	17
17	1.5	63	6.4	8.6	49	97	23	16	2.5	4.4	.39	14
18	1.1	38	4.8	7.1	46	83	26	24	3.6	3.3	.28	9.0
19	.78	26	8.1	6.1	54	63	24	23	20	3.7	.18	6.6
20	2.4	18	28	5.2	98	53	19	21	23	2.3	.23	8.0
21	2.5	13	30	4.2	85	47	15	20	16	1.2	.36	5.9
22	2.6	7.5	56	5.4	69	33	16	25	7.6	1.5	.53	3.7
23	11	5.0	61	5.8	63	26	23	26	2.9	1.0	.63	2.2
24	4.5	3.7	62	3.5	61	22	23	19	1.4	1.5	.52	2.7
25	4.9	2.4	70	2.9	68	22	22	12	.62	2.1	1.3	8.6
26	22	2.9	60	2.3	61	24	25	7.2	.44	5.9	1.5	6.5
27	23	12	48	1.7	62	50	21	4.1	1.0	6.8	4.4	8.7
28	18	13	34	2.7	52	39	16	6.2	8.3	2.7	5.9	11
29	22	15	24	4.6	---	25	15	16	9.0	1.5	7.2	5.3
30	20	17	20	6.0	---	24	16	12	7.1	1.5	9.3	2.9
31	28	---	18	6.1	---	20	---	8.6	---	4.9	23	---
TOTAL	285.08	624.1	899.8	407.2	1005.2	1661	932	1033.1	233.56	135.26	686.61	444.6
MEAN	9.20	20.8	29.0	13.1	35.9	53.6	31.1	33.3	7.79	4.36	22.1	14.8
MAX	30	82	70	43	98	124	64	115	23	16	187	54
MIN	.78	2.4	4.8	1.7	4.0	13	15	4.1	.39	.66	.18	2.2

CAL YR 1984 TOTAL 39698.34 MEAN 108 MAX 556 MIN .44
WTR YR 1985 TOTAL 8347.51 MEAN 22.9 MAX 187 MIN .18

01104200 CHARLES RIVER AT WELLESLEY, MASS.

LOCATION.--Lat 42°18'59", long 71°13'42", Norfolk County, Hydrologic Unit 01090001, on left bank at east limits of Wellesley, 30 ft upstream from a horseshoe-shaped dam and 50 ft upstream from bridge on State Highway 9.

DRAINAGE AREA.--211 mi^2.

PERIOD OF RECORD.--Discharge: August 1959 to current year.
Water-quality records: Water year 1968.

GAGE.--Water-stage recorder and masonry dam. Datum of gage is 67.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-17, Apr. 29, and May 1. Records good except those for period of shifting-control, May 15 to Aug. 22, and those for estimated daily discharges, which are fair. Flow affected by diversion to Mother Brook (station 01104000), and by diversions to and from basin for muncipal supplies. Occasional regulation at dam 0.2 mi upstream and by other ponds upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--26 years, 278 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,410 ft^3/s Mar. 21, 1968, gage height, 6.20 ft; no flow Sept. 15, Oct. 6, 1959 (caused by closing of gates at dam at gage); minimum daily discharge, 1.0 ft^3/s Aug. 24, 31, Sept. 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 705 ft^3/s Apr. 9, gage height, 4.32 ft; minimum, 10 ft^3/s June 27, Aug. 22; minimum daily, 13 ft^3/s Aug. 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	50	135	121	217	83	238	137	97	135	99	547	143
2	160	127	127	221	86	222	157	94	144	101	456	139
3	175	124	103	164	91	209	189	149	110	120	358	139
4	150	124	116	161	71	200	195	223	104	150	336	94
5	130	127	129	167	73	166	201	254	109	121	323	83
6	98	134	190	172	83	183	200	268	118	109	306	103
7	100	126	205	164	83	216	177	275	100	97	276	117
8	100	121	208	155	86	229	201	280	102	52	247	115
9	94	121	210	135	101	237	212	279	111	48	220	112
10	76	119	206	134	109	237	185	258	103	59	170	139
11	78	126	202	118	102	235	202	236	99	69	143	149
12	76	200	198	111	99	256	192	216	112	66	138	157
13	62	160	198	112	239	269	180	170	122	56	128	153
14	62	181	198	112	238	277	170	140	111	60	115	149
15	63	230	197	112	243	285	169	145	107	90	104	146
16	64	228	191	106	255	293	162	149	108	86	89	105
17	65	208	178	100	267	286	140	121	174	74	76	95
18	65	193	164	100	279	266	125	118	123	57	72	96
19	43	167	115	100	226	252	134	135	126	60	69	65
20	41	143	132	100	230	234	134	150	148	64	36	57
21	56	128	147	100	230	213	134	163	147	60	17	61
22	61	124	223	104	216	213	118	152	137	65	13	60
23	130	122	244	108	215	204	120	132	117	41	31	61
24	112	117	262	99	224	197	127	137	105	27	41	41
25	76	115	275	92	238	176	119	127	92	35	54	51
26	86	72	275	94	258	124	112	117	85	53	44	66
27	103	58	263	96	253	108	118	109	47	82	49	109
28	104	75	238	97	251	121	118	76	78	77	57	102
29	129	98	227	76	---	136	100	98	103	78	61	94
30	116	111	214	76	---	131	90	110	113	53	84	96
31	121	---	213	83	---	134	---	112	---	66	159	---
TOTAL	2846	4114	5969	3786	4929	6547	4618	5090	3390	2275	4819	3097
MEAN	91.8	137	193	122	176	211	154	164	113	73.4	155	103
MAX	175	230	275	221	279	293	212	280	174	150	547	157
MIN	41	58	103	76	71	108	90	76	47	27	13	41

CAL YR 1984 TOTAL 147768 MEAN 404 MAX 1670 MIN 41
WTR YR 1985 TOTAL 51480 MEAN 141 MAX 547 MIN 13

01104500 CHARLES RIVER AT WALTHAM, MASS.

LOCATION.--Lat 42°22'20", long 71°14'03", Middlesex County, Hydrologic Unit 01090001, on right bank 800 ft downstream from Moody Street Bridge in Waltham and 0.3 mi upstream from Beaver Brook.

DRAINAGE AREA.--227 mi^2, excludes 23.6 mi^2 drained by Stony Brook, from which flow is diverted for municipal supply of Cambridge.

PERIOD OF RECORD.--Discharge: October 1903 to October 1909 (figures of average weekly discharge, equivalent to records of unadjusted discharge at present site), August 1931 to current year.
Water-quality records: Water years 1953, 1959, 1968-70.

REVISED RECORDS.--WSP 781: 1933(M). WSP 851: Drainage area. WSP 971: 1942.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 20.02 ft above National Geodetic Vertical Datum of 1929. Prior to July 10, 1904, at dam 700 ft upstream and July 10, 1904, to Oct. 2, 1909, at dam 0.7 mi downstream at different datums; discharge computed from flow over dam and through wheels and gates of Boston Manufacturing Co. and Waltham Bleachery, respectively.

REMARKS.--No estimated daily discharges. Records good. Flow affected by diversion to Mother Brook (station 01104000), diversions to and from basin for municipal supplies, and at times by water released from Stony Brook Reservoir. Prior to 1960, some regulation by mills upstream. Low flow completely regulated by Boston Edison Co. powerplant prior to 1954. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--55 years (water years 1932-85), 302 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,150 ft^3/s Feb. 3, 1976, gage height, 6.54 ft, caused by release of water stored behind ice jam upstream; minimum, 0.1 ft^3/s Oct. 1, 12, 1943; minimum daily, 0.2 ft^3/s Oct. 4, 1943.
Maximum discharge since 1886, that of Feb. 3, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 811 ft^3/s Aug. 1, gage height, 2.86 ft; minimum, 21 ft^3/s Aug. 22, 23; minimum daily, 24 ft^3/s Aug. 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	56	149	141	230	95	257	190	110	157	121	671	157
2	174	149	145	238	100	241	186	108	155	112	540	149
3	191	139	142	214	101	224	209	171	147	129	370	152
4	160	133	137	173	96	219	218	250	118	160	339	131
5	142	150	152	190	76	228	226	268	123	140	316	97
6	106	161	229	191	92	192	225	294	137	123	299	123
7	111	145	247	185	95	225	205	296	129	112	272	134
8	110	171	233	179	94	247	247	295	115	89	250	129
9	104	263	239	160	93	250	237	292	122	53	227	131
10	81	175	230	154	95	252	209	284	120	65	183	195
11	86	161	229	149	99	254	229	258	93	64	160	159
12	83	283	250	132	112	304	222	231	116	63	151	174
13	70	269	240	131	283	308	210	201	134	55	138	170
14	71	221	229	130	291	302	203	160	116	60	126	169
15	73	275	229	128	291	305	197	168	108	94	115	163
16	69	268	220	123	310	305	191	167	110	90	99	142
17	70	242	206	119	326	307	165	155	184	80	89	116
18	73	218	192	117	332	295	146	149	166	71	81	114
19	66	191	182	117	297	276	158	161	113	63	73	101
20	49	187	154	118	238	266	161	159	138	67	64	81
21	54	160	166	113	246	243	157	185	145	67	34	84
22	64	151	252	110	237	233	159	201	137	75	24	82
23	136	148	259	105	237	230	148	151	127	65	25	80
24	133	141	271	105	243	224	112	150	115	40	43	81
25	117	133	282	107	248	211	134	144	101	38	76	76
26	102	150	285	109	266	185	140	133	91	88	97	80
27	124	94	273	108	272	129	137	126	72	97	63	178
28	125	97	254	108	261	140	198	137	78	91	62	166
29	150	128	245	98	---	153	123	116	109	93	64	125
30	150	138	234	83	---	156	102	123	116	86	94	117
31	131	---	227	92	---	159	---	125	---	80	188	---
TOTAL	3231	5290	6774	4316	5526	7320	5444	5768	3692	2631	5333	3856
MEAN	104	176	219	139	197	236	181	186	123	84.9	172	129
MAX	191	283	285	238	332	308	247	296	184	160	671	195
MIN	49	94	137	83	76	129	102	108	72	38	24	76

CAL YR 1984 TOTAL 179528 MEAN 491 MAX 2370 MIN 44
WTR YR 1985 TOTAL 59181 MEAN 162 MAX 671 MIN 24

01105000 NEPONSET RIVER AT NORWOOD, MASS.

LOCATION.--Lat 42°10'39", long 71°12'05", Norfolk County, Hydrologic Unit 01090001, on left bank 200 ft upstream from Pleasant Street Bridge, 200 ft downstream from railroad bridge, 0.45 mi downstream from Hawes Brook, and 0.5 mi south of Norwood.

DRAINAGE AREA.--34.7 mi^2.

PERIOD OF RECORD.--Discharge: October 1939 to current year. October 1939 monthly discharge only, published in WSP 1301.
Water-quality records: Water years 1958-59, 1966-68.

REVISED RECORDS.--WDR MA-RI-78-1: 1976(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 44.04 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 29 to Feb. 22, Apr. 18-21, Apr. 24 to May 3, May 16, 17, 23-31, June 2-10. Records fair except those for estimated daily discharges, which are poor. Flow regulated by mills and reservoirs upstream. Flow affected by several diversions upstream for municipal and industrial use. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 54.5 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,490 ft^3/s Aug. 19, 1955, gage height, 14.65 ft, from floodmarks; minimum daily, 1.4 ft^3/s Oct. 20, 1963.
Maximum discharge since 1886, that of Aug. 19, 1955. Flood of July 24, 1938, reached a stage of 11.05 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 307 ft^3/s Sept. 27, gage height, 7.74 ft, at upstream side of railroad bridge; minimum daily, 4.2 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	12	20	23	33	14	37	50	19	29	25	72	17
2	60	19	19	36	16	36	54	18	26	20	42	12
3	50	16	21	39	17	36	47	59	21	24	30	12
4	37	14	25	38	16	34	40	96	17	21	19	9.4
5	18	24	23	37	15	49	36	76	20	18	21	12
6	17	27	34	34	15	59	35	60	22	16	15	24
7	18	26	45	32	15	47	33	59	19	15	14	18
8	16	21	37	32	14	41	50	50	17	12	21	15
9	14	19	32	29	14	41	53	40	16	8.2	21	18
10	12	18	25	28	14	40	47	32	15	18	18	56
11	12	27	30	26	14	39	40	30	14	13	23	46
12	12	50	31	25	20	71	36	33	9.8	10	19	30
13	11	44	29	21	80	101	32	35	12	9.7	16	21
14	10	31	27	21	90	85	32	32	13	8.6	12	16
15	9.9	25	26	21	70	67	32	27	12	16	9.7	13
16	9.5	24	26	21	50	58	29	24	14	12	9.3	12
17	8.2	21	25	21	43	51	27	23	42	11	8.4	12
18	8.2	20	23	21	39	50	26	31	40	10	7.4	11
19	7.4	20	25	21	36	50	25	40	32	8.2	6.2	9.7
20	7.5	20	32	20	35	46	25	39	24	6.1	5.4	8.9
21	7.6	19	32	20	35	42	24	30	17	4.5	4.9	7.8
22	10	17	70	20	36	40	32	27	15	14	4.3	6.9
23	31	17	77	18	46	38	30	24	14	9.3	4.2	6.8
24	41	14	62	17	42	37	27	22	13	8.0	4.5	8.2
25	22	14	53	16	53	34	25	20	12	6.7	12	17
26	21	15	45	16	50	32	23	18	12	24	24	59
27	20	14	37	16	44	32	22	17	18	19	20	146
28	20	14	34	16	41	30	21	16	34	14	16	74
29	33	23	35	16	---	29	21	24	33	12	10	45
30	34	25	38	15	---	26	20	22	30	9.9	11	30
31	26	---	36	14	---	27	---	19	---	18	23	---
TOTAL	615.3	658	1077	740	984	1405	994	1062	612.8	421.2	523.3	773.7
MEAN	19.8	21.9	34.7	23.9	35.1	45.3	33.1	34.3	20.4	13.6	16.9	25.8
MAX	60	50	77	39	90	101	54	96	42	25	72	146
MIN	7.4	14	19	14	14	26	20	16	9.8	4.5	4.2	6.8

CAL YR 1984 TOTAL 34259.8 MEAN 93.6 MAX 766 MIN 5.4
WTR YR 1985 TOTAL 9866.3 MEAN 27.0 MAX 146 MIN 4.2

01105500 EAST BRANCH NEPONSET RIVER AT CANTON, MASS.

LOCATION.--Lat 42°09'16", long 71°08'47", Norfolk County, Hydrologic Unit 01090001, on right bank 100 ft downstream from Washington Street Bridge at Canton, 200 ft downstream from Forge Pond Dam, and 900 ft downstream from Massapoag Brook.

DRAINAGE AREA.--27.2 mi^2.

PERIOD OF RECORD.--Discharge: October 1952 to current year.
Water-quality records: Water years 1959, 1967-68.

REVISED RECORDS.--WSP 1901: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 80.18 ft above National Geodetic Vertical Datum of 1929 (Massachusetts Department of Public Works benchmark).

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Forge, Bolivar, Massapoag, and Reservoir Ponds, and other ponds upstream. Flow affected by diversions for municipal supply of Canton and Stoughton. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--33 years, 51.5 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft^3/s Aug. 19, 1955, gage height, 8.18 ft, from rating curve extended above 690 ft^3/s; minimum daily, 0.60 ft^3/s July 7, Sept. 1, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 155 ft^3/s Sept. 26, gage height, 2.85 ft; minimum daily, 3.3 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	13	41	21	33	17	33	65	19	23	14	23	17
2	86	39	19	37	19	39	57	17	22	12	18	12
3	71	37	19	43	18	46	35	55	15	14	11	10
4	40	36	29	37	17	42	30	85	13	20	9.2	8.8
5	25	41	24	34	16	61	29	47	13	14	8.1	8.3
6	15	47	37	31	17	60	29	38	23	11	7.3	17
7	13	40	46	29	17	46	29	43	19	9.8	7.0	20
8	12	38	31	31	17	43	43	36	16	8.7	10	15
9	12	34	25	29	16	41	43	30	14	7.5	18	14
10	11	31	28	26	16	37	34	29	13	6.9	12	46
11	11	36	41	25	17	30	32	31	12	6.8	9.8	37
12	11	53	39	25	33	60	30	35	11	6.4	9.4	20
13	11	43	37	24	122	78	29	37	11	6.2	8.1	13
14	11	31	34	24	88	51	27	30	8.9	5.9	7.4	11
15	11	27	28	24	60	41	27	22	6.5	8.6	7.2	10
16	11	27	27	21	35	35	25	19	10	9.6	6.8	9.7
17	11	27	26	20	31	36	25	22	33	8.3	6.4	9.0
18	11	25	25	20	30	47	24	30	28	7.1	6.1	8.1
19	11	23	27	21	29	58	24	44	21	7.1	6.1	7.7
20	11	21	37	21	32	57	24	35	15	6.6	6.5	7.3
21	14	21	31	20	31	51	23	29	12	6.2	6.3	6.4
22	16	21	61	18	31	43	32	24	10	9.4	5.8	5.9
23	42	21	61	19	39	28	35	17	9.7	9.7	5.4	5.8
24	34	20	45	19	43	28	28	15	9.8	7.7	4.3	5.8
25	24	19	41	19	42	20	26	15	9.4	6.5	3.3	8.9
26	25	18	36	19	36	24	24	14	9.0	9.6	14	30
27	27	17	31	18	35	25	23	13	15	18	18	26
28	23	17	31	17	33	25	22	15	30	12	12	14
29	38	21	35	17	---	25	21	21	26	8.8	8.8	5.2
30	42	25	37	16	---	26	21	18	18	7.6	8.3	8.4
31	39	---	33	16	---	29	---	15	---	7.9	22	---
TOTAL	732	897	1042	753	937	1265	916	900	476.3	293.9	305.6	417.3
MEAN	23.6	29.9	33.6	24.3	33.5	40.8	30.5	29.0	15.9	9.48	9.86	13.9
MAX	86	53	61	43	122	78	65	85	33	20	23	46
MIN	11	17	19	16	16	20	21	13	6.5	5.9	3.3	5.2

CAL YR 1984 TOTAL 25004.6 MEAN 68.3 MAX 587 MIN 8.9
WTR YR 1985 TOTAL 8935.1 MEAN 24.5 MAX 122 MIN 3.3

01105585 TOWN BROOK AT QUINCY, MASS.

LOCATION.--Lat 42°14'52", long 70°59'52", Norfolk County, Hydrologic Unit 01090001, on left bank 200 ft downstream from Miller Stile Road at Quincy and 0.8 mi upstream from Town River Bay.

DRAINAGE AREA.--4.22 mi^2.

PERIOD OF RECORD.--September 1972 to current year. Prior to October 1974 published as Town River at Quincy.

REVISED RECORDS.--WDR MA-RI-81-1: 1975-80 (P). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 29 to Dec. 4, Dec. 20 to Jan. 15. Records fair except those for estimated daily discharges and those for period of doubtful gage-height record, June 4 to July 29, which are poor. Diurnal fluctuation caused by plant upstream. Flow regulated by Old Quincy Reservoir 2.2 mi upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--13 years, 8.93 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 381 ft^3/s May 13, 1975, gage height, 7.40 ft, from rating curve extended above 210 ft^3/s on basis of U.S. Army Corps of Engineers computation of the backwater effect from culvert downstream; minimum daily, 0.62 ft^3/s Sept. 25, 27, 29, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 299 ft^3/s July 3, gage height, 6.17 ft; minimum daily, 0.69 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	12	3.4	1.4	3.8	2.7	14	14	11	7.4	.89	21	.79
2	59	2.9	1.7	5.0	3.4	12	4.0	7.7	2.2	.81	4.9	.83
3	4.3	2.5	2.4	3.5	2.6	12	3.8	31	2.3	30	4.5	4.1
4	2.7	2.3	4.8	3.0	2.1	7.6	3.5	5.9	2.4	4.5	4.5	3.5
5	2.3	3.3	8.1	4.0	2.1	11	3.7	4.6	5.3	2.4	4.2	3.3
6	2.2	3.7	21	3.5	2.8	4.0	3.5	9.8	2.9	2.2	4.4	6.1
7	2.1	3.1	8.8	4.5	2.4	3.8	3.3	10	2.0	1.7	5.2	3.3
8	2.1	2.8	7.8	5.4	2.0	4.4	15	8.8	2.7	2.3	18	3.2
9	2.0	2.5	7.5	3.6	2.0	2.9	3.1	8.9	3.2	1.9	3.3	15
10	2.2	2.3	6.3	3.2	2.3	3.2	3.3	6.0	2.8	2.5	5.0	14
11	1.9	2.4	1.6	2.9	5.5	3.7	4.0	2.9	3.0	2.3	6.4	4.5
12	1.7	3.3	1.6	2.7	25	24	3.9	5.9	5.0	2.2	5.5	3.8
13	1.8	3.7	1.6	2.5	33	10	3.7	3.0	3.1	2.2	3.3	3.7
14	1.7	3.1	1.5	2.4	11	16	4.0	3.0	3.3	2.2	3.3	2.2
15	1.7	2.8	1.5	2.4	7.3	14	3.9	2.5	4.0	6.1	3.0	3.0
16	1.4	2.6	1.3	2.0	2.2	14	3.3	2.4	3.6	2.9	2.2	3.4
17	3.4	2.4	1.3	1.9	1.8	14	3.5	2.6	15	2.4	1.1	2.6
18	5.5	2.2	1.3	1.7	1.7	14	3.6	5.1	6.9	2.6	1.1	1.3
19	5.8	2.0	5.0	2.0	1.8	15	3.9	2.6	5.6	2.5	1.9	.94
20	6.2	1.9	1.7	1.9	1.7	11	4.0	2.9	3.6	2.3	2.8	.79
21	6.4	1.8	7.0	1.6	1.7	4.1	4.0	3.4	6.2	2.3	2.5	.73
22	9.6	1.7	15	1.7	2.2	3.9	6.1	3.1	5.9	7.4	2.5	.69
23	16	1.7	7.0	1.7	3.0	3.9	4.2	2.9	6.2	2.3	2.1	.88
24	7.3	1.7	5.0	1.8	2.7	3.9	4.4	3.1	6.4	2.2	2.2	3.5
25	7.3	1.6	3.5	1.9	2.7	3.8	4.2	2.8	6.5	1.8	5.9	7.3
26	9.6	1.6	3.3	1.9	2.5	3.4	3.6	2.6	4.2	11	14	6.2
27	2.7	1.5	2.8	1.9	6.6	3.3	3.0	2.9	2.2	5.1	3.0	17
28	2.9	1.5	3.3	1.9	15	3.5	2.9	8.0	7.1	4.4	2.5	15
29	12	1.5	3.7	1.7	---	3.5	7.5	3.6	1.1	4.4	2.2	15
30	7.0	1.5	3.3	1.7	---	3.5	11	2.6	.88	4.5	6.0	13
31	4.5	---	3.0	1.7	---	4.1	---	2.6	---	10	5.1	---
TOTAL	207.3	71.3	145.1	81.4	151.8	251.5	145.9	174.2	132.98	132.30	153.6	159.65
MEAN	6.69	2.38	4.68	2.63	5.42	8.11	4.86	5.62	4.43	4.27	4.95	5.32
MAX	59	3.7	21	5.4	33	24	15	31	15	30	21	17
MIN	1.4	1.5	1.3	1.6	1.7	2.9	2.9	2.4	.88	.81	1.1	.69

CAL YR 1984 TOTAL 4943.9 MEAN 13.5 MAX 180 MIN 1.3
WTR YR 1985 TOTAL 1807.03 MEAN 4.95 MAX 59 MIN .69

01105600 OLD SWAMP RIVER NEAR SOUTH WEYMOUTH, MASS.

LOCATION.--Lat 42°11'25", long 70°56'43", Norfolk County, Hydrologic Unit 01090001, on left bank between divided lanes of State Highways 3 and 128, 100 ft downstream from unnamed tributary entering from left, 0.4 mi upstream from Whitmans Pond, and 1.2 mi north of South Weymouth.

DRAINAGE AREA.--4.29 mi^2.

PERIOD OF RECORD.--Discharge: May 1966 to current year.
Water-quality records: Water years 1967-68.

GAGE.--Water-stage recorder. Elevation of gage is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 2-14, Jan. 8-31, Feb. 4-13. Records fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--19 years, 9.29 ft^3/s, 28.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 590 ft^3/s May 31, 1984, gage height, 5.02 ft; maximum gage height, 5.35 ft Feb. 15, 1971 (ice jam); minimum discharge, 0.11 ft^3/s Sept. 5, 6, 9, 10, 1971.

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)
Feb. 13	0415	ice jam	*3.31	May 3	1515	*38	3.12

Minimum discharge, 0.24 ft^3/s Aug. 29.

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	2.3	3.9	3.6	4.5	1.7	4.9	11	3.0	8.7	3.2	7.0	3.5
2	8.2	3.4	2.7	5.9	1.9	5.1	8.7	2.9	5.5	2.3	2.7	1.7
3	4.3	3.0	2.9	7.2	1.9	5.0	6.5	19	3.3	8.6	1.4	1.3
4	3.5	2.7	4.8	5.3	1.8	4.1	5.4	26	2.3	7.5	.93	.94
5	3.0	3.4	3.4	4.6	1.8	9.4	4.9	11	3.8	3.5	.66	1.3
6	2.4	3.6	10	4.4	1.9	9.4	4.7	9.3	6.5	2.6	.52	1.5
7	2.2	3.2	10	3.8	1.9	6.6	4.3	9.9	4.7	2.0	.43	2.4
8	2.0	2.8	6.4	3.5	1.8	6.3	9.0	8.2	3.3	1.5	2.3	2.0
9	1.9	2.3	4.8	3.2	1.8	6.3	8.2	6.6	2.6	1.2	1.8	2.6
10	1.8	2.2	4.7	3.0	1.9	5.6	6.2	5.9	2.0	1.0	.96	15
11	1.7	2.1	5.5	2.8	2.0	5.0	5.2	5.2	1.6	.87	.70	6.3
12	1.7	5.7	5.0	2.5	2.5	17	4.6	5.5	1.4	.68	.57	3.4
13	1.6	4.3	4.3	2.4	22	20	4.4	6.1	2.6	.53	.46	2.1
14	1.6	3.5	3.6	2.3	22	11	4.1	5.4	4.0	.48	.42	1.5
15	1.5	2.9	3.3	2.2	14	7.8	4.1	4.7	2.3	2.4	.40	1.1
16	1.5	2.8	3.3	2.1	9.5	6.5	4.1	4.1	2.6	1.4	.35	.83
17	1.5	2.5	3.3	2.0	7.4	5.9	4.0	4.0	9.2	1.2	.31	.70
18	1.5	2.3	2.9	2.0	6.8	6.1	3.7	4.7	6.3	.82	.31	.60
19	1.5	2.2	4.0	1.9	6.3	5.9	3.7	5.1	4.6	.60	.31	.53
20	1.5	1.9	6.1	1.8	6.5	6.0	3.7	4.2	3.0	.50	.31	.45
21	1.5	1.9	4.4	1.8	5.8	5.9	3.3	3.8	2.0	.40	.31	.39
22	1.5	1.8	17	1.8	6.3	5.3	4.7	3.6	1.4	3.0	.31	.36
23	8.6	1.6	13	1.8	8.1	4.7	5.0	3.1	1.2	1.2	.31	.36
24	5.8	1.5	7.7	1.7	9.4	4.6	4.1	2.7	1.2	.64	.30	.64
25	3.9	1.7	6.7	1.7	9.2	4.4	3.9	2.4	1.2	.43	1.0	1.2
26	4.0	1.7	5.2	1.6	7.5	4.0	3.9	2.3	1.1	3.0	4.9	.73
27	4.0	1.7	4.2	1.6	6.7	3.7	3.6	2.3	6.0	3.1	2.6	1.5
28	3.6	1.7	3.9	1.5	5.4	3.7	3.3	3.7	9.5	1.5	1.3	1.4
29	7.9	4.9	5.2	1.5	---	3.7	3.3	6.0	6.0	.85	.66	.85
30	7.1	4.8	5.7	1.5	---	3.7	3.0	3.7	4.3	.60	1.6	.79
31	4.9	---	4.6	1.6	---	3.4	---	2.7	---	1.1	7.1	---
TOTAL	100.0	84.0	172.2	85.5	175.8	201.0	148.6	187.1	114.2	58.70	43.23	57.97
MEAN	3.23	2.80	5.55	2.76	6.28	6.48	4.95	6.04	3.81	1.89	1.39	1.93
MAX	8.6	5.7	17	7.2	22	20	11	26	9.5	8.6	7.1	15
MIN	1.5	1.5	2.7	1.5	1.7	3.4	3.0	2.3	1.1	.40	.30	.36
CFSM	.72	.62	1.23	.61	1.40	1.44	1.10	1.34	.85	.42	.31	.43
IN.	.83	.69	1.42	.71	1.45	1.66	1.23	1.55	.94	.49	.36	.48

CAL YR 1984 TOTAL 4410.27 MEAN 12.0 MAX 308 MIN .58 CFSM 2.67 IN. 36.46
WTR YR 1985 TOTAL 1428.30 MEAN 3.91 MAX 26 MIN .30 CFSM .87 IN. 11.81

01105730 INDIAN HEAD RIVER AT HANOVER, MASS.

LOCATION.--Lat 42°06'02", long 70°49'23", Plymouth County, Hydrologic Unit 01090002, on right bank at downstream side of Elm Street Bridge, 0.3 mi upstream from Iron Mine Brook, and 1 mi southwest of Hanover.

DRAINAGE AREA.--30.3 mi^2.

PERIOD OF RECORD.--Discharge: July 1966 to current year.
Water-quality records: Water years 1970-71.

GAGE.--Water-stage recorder. Datum of gage is 3.16 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-15. Records good except those for estimated daily discharges, which are fair. Some regulation by mills and by Wampatuck, Indian Head, Maquan, and other ponds upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--19 years, 62.1 ft^3/s 27.92 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,390 ft^3/s Mar. 18, 1968, gage height, 7.13 ft; minimum, 0.14 ft^3/s Sept. 26, 27, 1980; minimum daily, 0.18 ft^3/s Sept. 27, 29, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 310 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 4	1030	*183	*3.31				

Minimum discharge, 0.90 ft^3/s Aug. 25; minimum daily, 2.3 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	10	31	25	34	14	43	61	18	19	24	18	58
2	50	27	21	40	18	47	69	17	16	20	23	32
3	45	24	21	48	20	48	51	75	16	35	15	25
4	35	22	27	40	18	40	43	169	13	57	12	21
5	26	29	25	36	16	65	39	101	15	34	9.8	17
6	22	35	47	34	19	81	38	75	28	25	8.0	19
7	19	30	71	32	19	58	34	98	26	21	6.2	34
8	17	25	48	40	17	55	51	72	14	19	6.4	29
9	16	23	37	36	17	55	59	52	13	15	9.3	22
10	15	22	37	29	17	48	45	44	14	13	10	61
11	14	23	44	26	17	44	38	42	12	10	8.5	56
12	14	36	40	25	19	98	35	38	10	9.1	6.6	34
13	13	35	34	24	135	169	31	39	10	7.6	5.6	25
14	13	29	29	23	145	117	30	37	11	6.9	4.8	21
15	13	25	26	22	100	83	30	32	11	7.8	4.8	16
16	13	25	25	20	75	66	31	27	11	11	4.8	14
17	12	22	25	18	61	58	27	26	41	13	4.4	13
18	12	21	24	18	55	55	25	27	47	11	3.7	11
19	12	20	24	19	51	52	25	32	43	7.9	3.5	11
20	12	19	34	19	53	48	25	30	27	6.6	3.9	10
21	12	17	32	18	48	43	23	25	20	5.8	4.8	9.1
22	12	16	75	17	49	39	28	24	16	7.6	4.2	8.1
23	40	16	86	17	63	37	32	21	14	14	2.8	8.3
24	42	16	58	17	74	36	27	20	14	11	2.3	8.6
25	31	16	48	17	74	35	26	18	16	8.7	2.6	11
26	29	16	41	17	64	32	23	19	15	7.7	24	13
27	30	14	34	16	55	31	20	17	19	11	34	16
28	27	14	32	16	49	31	18	16	39	10	23	13
29	45	21	38	15	---	31	20	22	43	9.9	15	10
30	51	26	42	14	---	30	20	23	32	7.7	17	9.7
31	39	---	36	14	---	28	---	23	---	7.2	97	---
TOTAL	741	695	1186	761	1362	1703	1024	1279	625	454.5	395.0	635.8
MEAN	23.9	23.2	38.3	24.5	48.6	54.9	34.1	41.3	20.8	14.7	12.7	21.2
MAX	51	36	86	48	145	169	69	169	47	57	97	61
MIN	10	14	21	14	14	28	18	16	10	5.8	2.3	8.1
CFSM	.79	.77	1.27	.81	1.61	1.82	1.13	1.37	.69	.49	.42	.70
IN.	.91	.86	1.46	.94	1.68	2.10	1.26	1.58	.77	.56	.49	.78

CAL YR 1984 TOTAL 28160.9 MEAN 76.9 MAX 773 MIN 4.3 CFSM 2.55 IN. 34.69
WTR YR 1985 TOTAL 10861.3 MEAN 29.8 MAX 169 MIN 2.3 CFSM .99 IN. 13.38

01105870 JONES RIVER AT KINGSTON, MASS.

LOCATION.--Lat 41°59'27", long 70°44'03", Plymouth County, Hydrologic Unit 01090002, on left bank 100 ft downstream from Elm Street Bridge at Kingston and 2.8 mi upstream from mouth.

DRAINAGE AREA.--15.7 mi^2, excludes 4.09 mi^2 above outlet of Silver Lake, from which flow is diverted for municipal supply of Brockton, Whitman, and Hanson.

PERIOD OF RECORD.--Discharge: August 1966 to current year.
Water-quality records: Water years 1970-71.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4.76 ft above National Geodetic Vertical Datum of 1929 (levels by Massachusetts Department of Public Works).

REMARKS.--Estimated daily discharges: Oct. 26, Feb. 6, and May 7. Records poor. Flow regulated by pond upstream. Flow affected at times during 1968-76, 1978-79, 1982-84 by wastage from Silver Lake. Surface flow may be affected by ground water that enters from or moves into adjacent basins. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--19 years, 32.1 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 575 ft^3/s Mar. 19, 1968, gage height, 4.60 ft; maximum gage height, 5.88 ft Feb. 7, 1978, from peak-stage indicator (backwater from tide); minimum daily discharge, 0.59 ft^3/s Aug. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93 ft^3/s Oct. 2, gage height, 3.36 ft; minimum daily, 3.6 ft^3/s Aug. 7.

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	30	20	17	12	22	25	11	8.6	12	13	44
2	67	25	18	19	13	21	28	11	7.9	11	16	40
3	71	23	17	20	15	20	27	28	6.6	11	12	28
4	53	21	19	21	16	20	20	60	6.3	18	9.7	19
5	46	22	20	22	14	29	18	43	7.0	19	7.0	13
6	32	26	25	21	14	31	19	35	12	14	5.2	12
7	26	26	31	17	14	24	18	39	13	11	3.6	16
8	24	26	29	20	14	27	21	33	11	10	4.3	18
9	22	22	26	22	14	26	23	24	8.8	9.6	6.3	17
10	21	21	24	20	14	23	22	21	7.5	9.0	7.3	34
11	19	20	26	19	13	21	20	19	6.2	8.1	7.0	39
12	13	25	26	17	15	38	18	16	6.1	8.6	6.4	30
13	12	27	23	17	41	68	17	16	6.7	9.6	6.1	22
14	14	23	21	19	49	56	17	17	7.2	9.8	5.6	19
15	13	22	19	18	43	42	15	15	6.4	9.7	5.6	15
16	13	23	19	15	34	34	15	14	6.0	11	5.2	12
17	13	22	18	13	27	29	15	14	20	13	5.3	9.9
18	13	21	17	13	25	26	15	16	28	11	5.1	8.7
19	13	18	16	13	24	22	15	22	29	9.2	5.1	7.7
20	20	17	17	13	24	21	15	25	22	8.6	5.1	6.8
21	18	15	17	13	22	20	15	21	15	8.0	4.6	7.1
22	19	14	29	12	22	18	15	19	10	8.9	4.6	6.9
23	27	14	31	11	26	18	15	16	8.4	10	4.6	6.9
24	30	14	28	11	29	19	15	14	8.7	9.4	4.6	6.6
25	31	14	28	14	30	19	14	12	9.4	7.9	5.2	7.5
26	31	14	26	13	27	18	14	8.8	9.3	13	23	8.9
27	32	15	25	12	23	18	14	7.3	9.7	20	38	19
28	28	15	19	12	20	18	12	7.6	13	16	27	23
29	34	17	20	14	---	18	12	9.0	14	12	22	12
30	40	20	24	11	---	17	11	8.1	14	8.9	26	5.0
31	36	---	19	11	---	17	---	7.9	---	6.5	57	---
TOTAL	844	612	697	490	634	800	520	609.7	337.8	343.8	357.5	514.0
MEAN	27.2	20.4	22.5	15.8	22.6	25.8	17.3	19.7	11.3	11.1	11.5	17.1
MAX	71	30	31	22	49	68	28	60	29	20	57	44
MIN	12	14	16	11	12	17	11	7.3	6.0	6.5	3.6	5.0

CAL YR 1984 TOTAL 19319 MEAN 52.8 MAX 189 MIN 11
WTR YR 1985 TOTAL 6759.8 MEAN 18.5 MAX 71 MIN 3.6

01105880 HERRING RIVER AT NORTH HARWICH, MASS.

LOCATION.--Lat 41°42'00", long 70°06'27", Barnstable County, Hydrologic Unit 01090002, on left bank 30 ft upstream from bridge on U.S. Route 6, 0.8 mi northeast of North Harwich, 1.1 mi downstream from Hinckleys Pond, and 2 mi northwest of Harwich.

DRAINAGE AREA.--About 9.4 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. Shifting-control method used Oct. 1 to Sept. 30. Flow regulated by many ponds (some with no outlets) upstream. Surface flow may be affected by ground water that enters from or moves into adjacent basins. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--19 years, 10.0 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75 ft^3/s Feb. 12, 1983, gage height, 3.71 ft, from rating curve extended above 34 ft^3/s; maximum gage height, 4.88 ft June 6, 1967; minimum discharge, 0.32 ft^3/s Sept. 13-15, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29 ft^3/s Aug. 19, 31; maximum gage height, 2.98 ft Aug. 19; minimum discharge, 2.8 ft^3/s Jan. 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	8.5	8.1	7.0	6.5	7.2	5.6	7.5	6.5	16	7.2	7.2	16
2	14	7.5	7.1	6.6	7.9	7.1	7.2	6.6	12	6.5	6.1	14
3	10	7.4	7.0	6.7	8.1	7.8	7.2	11	11	6.3	5.3	13
4	7.9	7.1	7.0	6.7	7.6	7.5	7.2	12	9.8	6.2	5.3	13
5	7.0	6.7	7.0	7.7	7.2	9.0	6.5	10	10	6.2	5.1	12
6	7.0	6.7	9.5	7.7	8.0	8.4	6.8	9.8	13	6.2	4.6	11
7	9.0	6.7	9.3	7.1	8.3	7.1	7.0	10	11	6.0	4.6	12
8	12	6.4	8.3	7.1	8.3	6.9	7.1	9.2	9.9	5.7	5.0	12
9	10	6.2	7.9	5.7	8.2	7.0	8.0	8.3	9.6	5.5	5.4	11
10	8.8	6.3	7.6	3.8	8.0	6.9	7.2	7.8	8.9	5.2	5.0	13
11	9.4	6.7	7.5	4.7	7.9	6.3	6.7	7.8	8.0	5.0	4.7	11
12	9.3	7.6	7.5	5.5	7.7	10	6.7	7.6	7.0	5.0	4.5	9.1
13	8.9	7.8	7.5	5.9	10	12	6.7	7.5	7.2	4.8	3.4	8.8
14	8.9	7.8	7.3	6.4	9.8	10	6.7	7.5	6.2	4.7	3.5	7.5
15	9.2	7.6	6.7	6.7	9.7	9.4	6.7	6.7	6.1	4.6	3.6	7.0
16	9.1	7.4	6.7	6.7	9.2	9.5	7.0	6.5	6.6	5.9	3.6	6.7
17	8.4	6.8	6.5	6.7	9.2	9.1	6.7	6.2	8.8	7.1	3.2	5.5
18	8.0	6.5	6.0	6.7	8.7	9.5	6.2	6.2	8.0	3.6	3.2	3.9
19	7.5	6.5	5.0	6.9	8.6	9.2	5.8	6.1	7.8	3.6	11	3.8
20	7.4	6.1	4.9	7.2	8.4	8.6	5.8	6.0	7.3	5.1	11	3.8
21	7.3	6.0	4.8	7.3	7.9	8.1	5.7	6.0	7.2	6.3	8.7	3.7
22	7.5	6.0	7.3	7.5	7.8	7.8	6.3	7.1	6.0	8.1	7.6	4.5
23	9.2	6.0	7.5	7.2	7.8	7.2	7.1	6.9	6.6	4.6	6.2	6.9
24	8.9	6.1	7.5	7.5	7.8	7.2	8.1	5.6	7.0	4.4	5.4	6.1
25	8.9	6.2	7.5	7.5	7.6	7.2	7.4	4.0	6.4	4.4	4.9	5.8
26	8.6	6.2	7.5	7.5	6.3	6.9	7.2	4.8	6.5	5.0	12	5.5
27	8.6	6.2	7.2	7.5	5.5	6.7	7.3	10	8.0	6.1	12	6.0
28	8.6	6.3	7.0	7.5	5.5	6.7	7.2	3.6	7.9	8.2	9.7	8.0
29	9.1	7.2	7.0	7.2	---	6.7	7.2	6.7	7.7	8.2	8.3	7.2
30	9.0	7.5	6.9	7.2	---	6.6	7.1	5.1	7.2	7.1	9.3	7.0
31	8.5	---	6.6	7.2	---	6.3	---	5.2	---	6.2	20	---
TOTAL	274.5	203.6	220.1	210.1	224.2	244.3	207.3	224.3	254.7	179.0	209.4	254.8
MEAN	8.85	6.79	7.10	6.78	8.01	7.88	6.91	7.24	8.49	5.77	6.75	8.49
MAX	14	8.1	9.5	7.7	10	12	8.1	12	16	8.2	20	16
MIN	7.0	6.0	4.8	3.8	5.5	5.6	5.7	3.6	6.0	3.6	3.2	3.7

CAL YR 1984 TOTAL 5261.8 MEAN 14.4 MAX 36 MIN 2.4
WTR YR 1985 TOTAL 2706.3 MEAN 7.41 MAX 20 MIN 3.2

01105885 RED BROOK BELOW ROUTE 25 NEAR WAREHAM, MASS.

LOCATION.--Lat 41°46'32", long 70°37'51", Plymouth County, Hydrologic Unit 01090002, on right bank at downstream end of sedimentation basin on downstream side of State Highway 25 (under construction), 1.3 mi upstream from mouth, 2.5 mi northeast of East Wareham, and 5 mi east of Wareham.

DRAINAGE AREA.--9.14 mi^2.

PERIOD OF RECORD.--September 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. Flow regulated by many ponds upstream, some with no outlets. Surface flow may be affected by ground water that enters from or moves into adjacent basins.

EXTREMES FOR CURRENT PERIOD.--September 1981: Maximum discharge during period, 3.6 ft^3/s Sept. 19, gage height, 2.08 ft; minimum, 1.1 ft^3/s Sept. 29, 30.

Water year 1982: Maximum discharge, 58 ft^3/s Jan. 14, gage height, 4.03 ft; minimum, 1.2 ft^3/s Oct. 1, 2, 4-6, 7, 8.
Water year 1983: Maximum discharge, 45 ft^3/s Feb. 10 and Mar. 12, gage height, 3.65 ft; minimum, 2.0 ft^3/s Jan. 22, 23.
Water year 1984: Maximum discharge, 43 ft^3/s Mar. 16, gage height, 3.50 ft, minimum, 2.2 ft^3/s Dec. 21, 22, Dec. 29 to Jan. 2, Jan. 9, 10, 15, 16.
Water year 1985: Maximum discharge, 52 ft^3/s Aug. 30, gage height, 3.77 ft; minimum, 1.5 ft^3/s Nov. 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												---
2												---
3												---
4												1.4
5												1.3
6												1.3
7												1.4
8												1.3
9												1.3
10												1.3
11												1.3
12												1.4
13												1.4
14												1.3
15												1.6
16												2.6
17												2.0
18												1.7
19												2.9
20												2.3
21												1.6
22												1.2
23												1.2
24												1.2
25												1.2
26												1.1
27												1.1
28												1.2
29												1.2
30												1.3
31												---
TOTAL												---
MEAN												---
MAX												---
MIN												---

01105885 RED BROOK BELOW ROUTE 25 NEAR WAREHAM, MASS.--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.7	1.8	2.6	5.5	3.5	5.6	6.7	5.5	4.3	3.6	4.9
2	1.8	1.7	2.5	2.6	2.8	3.5	4.9	6.9	7.6	4.1	3.6	15
3	1.4	1.9	2.3	2.3	2.8	3.5	4.9	6.3	5.5	3.9	3.6	5.0
4	1.3	1.9	2.0	2.8	3.0	3.5	7.3	5.0	5.2	3.7	3.5	3.9
5	1.2	1.8	1.8	2.4	2.9	3.7	5.8	5.5	7.7	3.6	3.9	3.4
6	1.2	1.9	1.9	2.5	2.7	4.0	5.1	5.4	12	3.6	5.0	3.4
7	1.3	2.0	2.0	2.5	2.7	4.0	4.6	5.8	10	3.6	4.1	3.4
8	1.2	1.9	1.9	2.5	2.7	4.0	4.8	5.3	7.1	3.4	3.6	3.6
9	1.3	1.9	1.9	2.5	2.7	3.8	5.1	5.0	6.0	3.2	6.6	3.5
10	4.6	1.8	1.9	2.5	2.7	23	5.2	5.6	4.9	4.7	6.1	3.2
11	22	1.8	1.9	2.2	2.7	37	5.6	4.3	4.2	3.4	4.5	3.2
12	3.2	1.8	1.9	2.2	2.7	14	5.5	4.1	3.8	3.0	4.4	3.2
13	2.0	1.8	1.9	2.2	2.7	7.7	5.4	4.1	3.9	3.1	4.0	3.0
14	2.0	1.8	1.8	22	2.7	5.9	5.4	4.1	6.9	3.9	4.0	2.6
15	1.9	4.1	3.8	25	2.7	6.4	5.1	4.1	5.5	3.1	3.3	2.6
16	1.9	6.5	3.3	7.4	2.7	6.0	4.8	4.1	4.6	3.1	3.5	2.6
17	1.9	3.4	2.4	6.0	2.7	5.5	4.9	5.1	4.2	3.3	3.3	2.6
18	1.8	2.6	2.3	5.3	2.7	5.3	4.6	5.8	4.4	3.5	3.3	2.6
19	1.7	2.1	2.2	4.8	2.7	5.1	4.5	5.7	4.5	3.4	3.3	2.6
20	1.7	2.0	2.2	4.8	2.8	4.9	4.3	5.2	4.7	3.7	3.3	2.7
21	1.7	2.0	2.2	4.4	3.0	4.9	3.8	4.7	4.2	4.7	3.3	2.9
22	1.7	2.0	2.2	4.0	3.0	4.9	3.3	4.0	4.2	4.5	6.9	3.2
23	1.9	1.8	2.2	4.3	2.9	5.0	5.0	4.1	3.8	3.7	4.0	3.3
24	2.3	1.8	2.2	8.2	2.7	4.9	4.9	4.4	4.1	3.1	3.8	3.2
25	2.0	1.8	2.2	4.3	2.7	4.6	5.8	4.6	3.9	3.0	4.3	3.0
26	1.9	1.8	2.2	4.0	2.7	5.1	5.8	4.0	4.0	2.9	4.3	3.2
27	1.9	1.8	2.2	3.9	2.6	4.9	8.4	4.5	3.9	2.9	4.2	3.6
28	2.3	1.8	2.2	3.6	3.1	4.6	7.0	5.3	4.4	3.7	3.9	11
29	2.0	1.8	2.2	3.6	---	4.6	6.0	6.2	4.6	4.2	3.5	10
30	1.8	1.8	2.2	3.2	---	4.6	6.5	6.0	5.2	3.7	3.7	3.2
31	1.8	---	2.2	2.7	---	4.6	---	5.6	---	3.6	3.4	---
TOTAL	77.9	64.8	67.9	153.3	80.3	207.0	159.9	157.5	160.5	111.6	125.8	123.6
MEAN	2.51	2.16	2.19	4.95	2.87	6.68	5.33	5.08	5.35	3.60	4.06	4.12
MAX	22	6.5	3.8	25	5.5	37	8.4	6.9	12	4.7	6.9	15
MIN	1.2	1.7	1.8	2.2	2.6	3.5	3.3	4.0	3.8	2.9	3.3	2.6

WTR YR 1982 TOTAL 1490.1 MEAN 4.08 MAX 37 MIN 1.2

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.4	3.2	2.6	2.3	5.3	26	26	12	8.6	6.9	6.1
2	3.4	3.2	3.2	2.6	2.3	19	25	24	13	9.3	6.3	4.3
3	3.2	3.2	3.2	2.5	2.4	16	23	21	16	8.8	4.5	4.1
4	3.2	3.3	3.3	2.5	2.5	13	22	18	19	8.5	5.3	3.9
5	3.1	5.4	3.3	2.5	2.3	17	27	14	16	8.5	6.0	3.9
6	3.0	3.9	4.3	2.5	2.3	17	25	15	17	13	11	3.7
7	3.0	3.4	3.6	2.5	3.5	17	24	13	18	9.2	6.3	3.3
8	3.3	3.2	2.7	2.5	3.2	20	24	13	16	8.7	5.5	3.9
9	11	2.9	2.7	2.5	2.7	29	29	16	13	8.7	5.6	3.6
10	4.4	3.2	2.7	5.8	21	37	26	15	14	9.9	5.0	3.3
11	4.0	3.2	2.7	7.3	32	41	34	14	15	10	5.1	3.4
12	3.2	3.2	2.7	3.0	5.9	43	27	16	17	9.7	9.7	3.4
13	3.1	4.8	2.9	2.7	9.1	37	20	15	15	9.6	7.4	3.2
14	3.4	4.0	2.9	2.6	11	29	18	17	9.0	9.2	5.1	3.2
15	3.3	4.5	2.7	2.7	9.7	23	17	16	7.4	9.4	4.4	3.0
16	3.1	4.1	3.7	2.9	8.6	14	19	22	7.2	9.4	3.0	3.6
17	3.0	3.6	5.0	2.5	8.8	14	26	18	8.6	8.7	4.6	4.4
18	4.2	3.4	2.6	2.4	17	19	22	20	8.4	7.4	7.5	3.6
19	3.6	3.3	2.6	2.2	10	28	16	24	8.5	7.9	7.8	3.3
20	3.5	3.3	2.6	2.2	7.5	29	17	20	8.4	9.1	4.7	3.3
21	3.3	3.3	3.1	2.2	7.2	27	14	21	8.3	8.9	3.9	3.3
22	3.3	3.3	2.6	2.0	5.3	28	14	22	8.4	9.7	3.4	3.5
23	4.7	3.4	2.6	2.3	6.5	26	14	21	8.2	7.8	3.0	3.5
24	3.4	3.5	2.7	3.0	8.3	20	20	18	8.2	7.6	3.6	3.2
25	3.7	3.4	2.7	2.5	6.0	12	27	18	10	8.4	5.5	3.0
26	3.4	3.3	2.7	2.3	5.7	11	22	19	10	7.7	4.5	3.0
27	5.9	3.3	2.6	2.3	5.5	11	26	17	9.1	7.2	4.3	3.0
28	26	3.3	2.6	2.3	5.4	15	30	17	12	6.3	4.4	3.5
29	6.5	4.7	2.6	2.3	---	17	30	17	10	7.7	4.5	3.6
30	3.8	3.6	2.6	2.3	---	9.6	29	17	9.0	7.4	4.2	4.9
31	3.6	---	2.6	2.5	---	16	---	16	---	6.6	4.8	---
TOTAL	142.9	107.6	92.0	85.0	214.0	659.9	693	560	351.7	268.9	167.8	109.0
MEAN	4.61	3.59	2.97	2.74	7.64	21.3	23.1	18.1	11.7	8.67	5.41	3.63
MAX	26	5.4	5.0	7.3	32	43	34	26	19	13	11	6.1
MIN	3.0	2.9	2.6	2.0	2.3	5.3	14	13	7.2	6.3	3.0	3.0

CAL YR 1982 TOTAL 1622.0 MEAN 4.44 MAX 37 MIN 2.2
WTR YR 1983 TOTAL 3451.8 MEAN 9.46 MAX 43 MIN 2.0

01105885 RED BROOK BELOW ROUTE 25 NEAR WAREHAM, MASS.--Continued

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	11	2.9	3.4	2.2	3.8	4.3	19	16	18	12	5.3	3.3
2	10	3.0	2.6	2.4	3.2	4.0	17	17	16	12	5.5	3.0
3	4.3	6.0	2.6	3.4	2.7	4.0	16	16	14	11	6.2	2.9
4	3.4	23	3.4	2.9	7.7	4.1	16	18	16	5.2	5.2	6.1
5	3.3	11	4.9	2.7	6.1	4.2	17	16	14	4.9	5.8	6.0
6	3.3	4.0	3.4	2.5	4.7	5.3	21	16	14	6.0	5.8	4.2
7	3.2	9.0	3.8	2.5	4.0	4.9	18	17	13	6.5	5.4	3.3
8	3.2	3.9	3.2	2.5	2.5	4.6	17	20	13	10	5.3	2.9
9	3.1	3.6	3.0	2.3	2.5	4.5	17	18	11	5.4	5.3	2.6
10	3.0	3.8	3.0	2.2	2.5	5.1	16	18	11	4.8	5.6	2.6
11	3.0	6.9	3.0	2.7	2.6	5.7	16	15	9.4	4.8	5.8	3.0
12	3.1	3.9	3.0	2.7	2.9	6.0	15	13	9.1	4.7	5.8	3.6
13	5.1	3.5	3.7	2.5	3.1	6.0	14	15	9.0	4.5	6.6	3.3
14	3.9	3.3	3.5	2.3	3.7	20	14	18	9.4	4.5	6.7	3.2
15	3.4	3.3	3.6	2.3	3.8	28	16	16	6.0	4.7	5.8	7.6
16	4.0	10	3.9	16	4.5	39	30	15	6.0	5.7	5.4	4.0
17	3.9	5.6	3.3	27	4.2	26	36	15	5.3	6.2	5.3	4.2
18	3.5	3.9	3.2	16	3.7	19	26	19	5.4	9.5	5.5	3.9
19	4.2	3.6	3.0	4.6	4.9	21	15	16	9.6	8.5	5.3	3.1
20	3.6	3.5	2.3	3.8	8.9	22	14	15	6.7	5.1	5.1	3.0
21	3.3	6.5	2.2	3.3	6.0	17	14	18	5.5	5.2	4.5	2.8
22	3.3	4.4	2.8	2.8	4.6	15	13	17	5.4	5.5	4.3	2.6
23	5.8	3.9	2.8	2.9	4.2	16	13	18	5.5	5.3	3.9	2.6
24	8.7	3.7	2.5	3.9	5.0	15	23	16	5.5	5.9	4.1	2.6
25	4.4	5.1	2.3	8.7	4.4	14	19	11	19	5.2	4.4	2.6
26	3.5	4.4	2.3	3.6	4.2	14	17	11	11	4.3	3.9	2.7
27	3.2	3.8	2.3	3.6	3.9	14	15	11	14	6.3	3.6	3.0
28	3.3	3.5	2.5	4.4	4.8	12	17	11	13	5.9	3.4	3.0
29	3.3	4.3	2.6	3.8	4.9	19	16	12	13	4.5	3.4	2.8
30	3.1	3.9	2.2	3.6	---	23	16	11	12	4.1	3.3	2.7
31	3.0	---	2.2	6.4	---	21	---	13	---	3.8	3.5	---
TOTAL	130.4	161.2	92.5	152.5	124.0	417.7	533	478	319.8	192.0	155.0	103.2
MEAN	4.21	5.37	2.98	4.92	4.28	13.5	17.8	15.4	10.7	6.19	5.00	3.44
MAX	11	23	4.9	27	8.9	39	36	20	19	12	6.7	7.6
MIN	3.0	2.9	2.2	2.2	2.5	4.0	13	11	5.3	3.8	3.3	2.6

CAL YR 1983 TOTAL 3493.4 MEAN 9.57 MAX 43 MIN 2.0
WTR YR 1984 TOTAL 2859.3 MEAN 7.81 MAX 39 MIN 2.2

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	3.1	3.8	2.3	1.8	4.1	2.0	3.3	4.0	3.9	3.2	14	5.9
2	14	3.5	2.3	1.9	3.8	2.0	3.4	4.3	3.2	3.1	6.2	5.1
3	4.0	3.3	2.2	2.2	3.6	2.0	3.1	8.9	3.1	2.5	5.1	5.2
4	3.5	3.2	2.2	2.0	3.4	2.0	3.0	6.5	2.9	2.5	4.7	4.8
5	6.5	3.2	2.2	1.9	3.6	2.3	3.0	4.5	3.8	2.4	4.3	4.3
6	3.5	5.2	2.3	1.9	3.6	1.9	2.9	4.6	4.4	2.6	4.0	5.0
7	7.7	3.8	2.0	1.9	3.3	1.9	2.7	4.4	3.1	2.7	3.4	5.4
8	7.2	3.4	1.9	1.9	3.1	1.9	2.9	4.4	3.0	3.2	6.3	5.0
9	3.8	3.5	1.9	1.9	3.0	2.1	3.0	5.8	3.0	3.6	4.9	5.0
10	3.2	3.2	1.9	1.9	3.0	2.9	3.0	5.0	2.9	3.3	4.0	6.9
11	5.1	3.1	2.0	1.9	3.0	19	2.7	4.1	2.7	4.3	4.2	5.2
12	3.6	3.9	1.9	1.9	3.3	33	2.7	4.1	2.5	4.4	3.7	6.1
13	3.5	5.2	1.9	1.9	9.8	7.6	2.6	4.8	2.3	4.3	3.4	5.2
14	3.5	5.4	1.8	1.9	4.0	4.0	2.6	5.0	2.4	4.6	3.9	4.7
15	3.5	3.2	1.8	1.9	3.8	3.6	2.6	4.1	2.5	4.9	4.3	4.6
16	3.2	3.0	1.8	1.9	3.4	3.3	2.6	3.6	2.7	9.1	4.1	4.6
17	3.0	2.9	1.8	1.9	3.2	3.3	2.6	3.5	6.4	7.8	4.1	4.5
18	3.5	2.9	1.8	1.9	3.3	3.2	4.1	3.6	2.5	6.6	4.1	4.4
19	3.3	2.7	1.8	1.9	3.4	3.2	2.9	4.4	3.5	7.4	4.9	4.4
20	3.2	1.9	2.1	1.9	3.2	3.2	3.2	4.9	3.3	6.0	4.9	4.4
21	3.5	1.8	2.0	6.7	2.5	3.2	3.3	4.2	3.0	5.8	4.8	4.4
22	3.6	1.7	2.8	29	2.5	2.9	3.5	6.4	3.0	5.9	4.4	4.4
23	4.6	1.7	2.1	15	3.3	2.9	3.6	4.5	2.8	5.0	4.3	4.4
24	3.8	1.6	2.0	5.4	3.2	2.9	4.1	4.3	2.9	4.9	4.2	4.4
25	3.5	1.5	2.0	4.5	3.1	2.9	3.7	4.1	3.1	4.8	5.9	4.4
26	3.3	1.5	1.9	4.1	2.3	2.9	4.0	3.7	2.9	11	24	4.4
27	3.1	1.7	1.8	3.6	2.3	2.9	4.1	3.3	3.9	8.7	7.4	5.2
28	2.8	1.8	1.8	3.5	2.1	2.9	3.7	3.4	4.0	4.0	4.6	5.6
29	4.6	2.1	1.8	3.4	---	2.9	4.0	3.8	3.3	3.8	4.2	5.1
30	15	2.3	1.8	3.0	---	2.9	4.4	4.1	3.3	3.5	15	4.7
31	16	---	1.8	3.1	---	2.9	---	3.3	---	3.3	17	---
TOTAL	155.7	88.0	61.7	119.6	96.2	136.6	97.3	139.6	96.3	149.2	194.3	147.7
MEAN	5.02	2.93	1.99	3.86	3.44	4.41	3.24	4.50	3.21	4.81	6.27	4.92
MAX	16	5.4	2.8	29	9.8	33	4.4	8.9	6.4	11	24	6.9
MIN	2.8	1.5	1.8	1.8	2.1	1.9	2.6	3.3	2.3	2.4	3.4	4.3

CAL YR 1984 TOTAL 2780.6 MEAN 7.60 MAX 39 MIN 1.5
WTR YR 1985 TOTAL 1482.2 MEAN 4.06 MAX 33 MIN 1.5

01108000 TAUNTON RIVER NEAR BRIDGEWATER, MASS.

LOCATION.--Lat 41°56'05", long 70°57'18", Plymouth County, Hydrologic Unit 01090004, on right bank 0.1 mi upstream from bridge on Titicut Road, 1 mi upstream from Sawmill Brook, 3.5 mi northwest of Middleboro, and 4 mi southeast of Bridgewater.

DRAINAGE AREA.--258 mi^2, revised.

PERIOD OF RECORD.--Discharge: October 1929 to April 1976, April to September 1985. Published as "at State Farm" October 1929 to September 1969, and as "at State Farm near Bridgewater" October 1969 to April 1976.
Water-quality records: Water years 1953, 1967-74.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1934. WSP 1051: 1933. WSP 1201: 1931. WSP 1301: 1930(M), 1933(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 9.61 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1931, inverted nonrecording gage at site 40 ft downstream with zero of gage at 10.02 ft. Oct. 1, 1931, to June 8, 1934, nonrecording gage, and June 9, 1934, to Oct. 12, 1939, water-stage recorder, at site 40 ft downstream at present datum.

REMARKS.--Estimated daily discharges: July 4, 18-22, Sept. 27-30. Records good except those for estimated daily discharges, which are poor. Flow affected by diversions to and from basin upstream of station for municipal supplies. Flow regulated by reservoirs and, prior to about 1975, by powerplants upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years (water years 1930-75), 464 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,980 ft^3/s Mar. 20, 1968, gage height, 14.48 ft; minimum, 8 ft^3/s Sept. 10, 1944; minimum daily, 9 ft^3/s Sept. 9-12, 1944.

EXTREMES FOR PERIOD APRIL TO SEPTEMBER 1985.--Maximum discharge, 795 ft^3/s May 4, gage height, 5.08 ft; minimum, 49 ft^3/s Aug. 21, 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							---	120	143	196	189	592
2							---	114	157	163	220	452
3							---	231	132	149	170	335
4							---	745	118	202	143	248
5							---	694	108	182	118	202
6							---	569	166	152	98	216
7							---	643	169	132	85	258
8							---	589	154	110	83	251
9							---	472	140	94	109	216
10							---	394	130	86	94	458
11							---	329	115	81	81	553
12							---	285	102	74	74	431
13							---	275	96	68	70	337
14							---	257	98	62	67	268
15							---	230	92	59	65	220
16							---	209	84	77	61	188
17							---	199	234	84	57	164
18							---	195	310	76	55	149
19							156	237	332	66	53	137
20							152	264	264	60	52	129
21							146	245	202	56	51	118
22							145	240	160	78	51	109
23							165	219	132	92	51	101
24							158	195	122	74	51	97
25							153	174	135	65	53	106
26							150	157	130	80	178	108
27							142	141	140	178	279	115
28							133	130	209	158	218	135
29							127	154	232	141	171	130
30							124	148	220	123	147	120
31							---	140	---	102	550	---
TOTAL							---	8994	4826	3320	3744	6943
MEAN							---	290	161	107	121	231
MAX							---	745	332	202	550	592
MIN							---	114	84	56	51	97

01108500 WADING RIVER AT WEST MANSFIELD, MASS.

LOCATION.--Lat 42°00'00", long 71°15'38", Bristol County, Hydrologic Unit 01090004, on right bank 200 ft downstream from Balcolm Street Bridge at West Mansfield, 2 mi upstream from Hodges Brook, and 3 mi southwest of Mansfield.

DRAINAGE AREA.--19.5 mi^2.

PERIOD OF RECORD.--Discharge: October 1953 to current year.
Water-quality records: Water years 1967-68.

REVISED RECORDS.--WSP 1621: 1953-58 (monthly runoff). WDR MA-NH-RI-VT-71-1: 1970. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 120.85 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 18 to Feb. 12, Sept. 28-30. Records poor. Flow regulated by Lake Mirimichi and other lakes and reservoirs upstream. Diversion upstream for municipal supply of Attleboro and small diversions to and from basin for other municipal supplies. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--32 years, 32.8 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 541 ft^3/s Mar. 19, 1968, gage height, 6.60 ft; no flow Oct. 22-24, 1957, Sept. 12, 1981 (caused by temporary storage upstream).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 41 ft^3/s Mar. 13, gage height, 4.15 ft; minimum, 0.16 ft^3/s July 21; minimum daily, 0.18 ft^3/s July 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	8.0	12	7.9	8.6	5.4	23	21	4.8	18	12	7.1	4.8
2	18	11	6.4	10	5.8	23	24	4.1	18	9.0	5.8	3.2
3	17	10	5.8	11	6.1	22	22	14	15	6.7	3.7	2.7
4	13	9.9	7.4	9.8	6.2	20	21	27	12	7.1	2.9	2.2
5	9.8	11	6.2	9.3	6.2	24	20	26	11	7.4	2.4	1.7
6	7.6	11	7.6	8.7	6.1	27	21	26	14	7.5	1.8	1.4
7	6.9	10	9.0	8.6	6.0	24	20	30	13	5.7	1.4	1.5
8	6.1	8.6	7.9	9.7	6.2	23	22	29	10	4.5	2.3	1.6
9	5.9	8.1	7.0	10	6.2	23	24	26	9.5	3.1	4.1	1.7
10	6.2	7.9	6.9	8.4	6.5	21	22	23	7.6	1.9	3.2	8.0
11	6.6	8.7	8.1	7.6	7.0	21	20	20	5.0	1.2	2.3	7.5
12	4.9	13	9.2	7.3	9.0	29	19	19	2.9	1.2	1.8	5.0
13	1.6	12	10	6.9	30	40	18	19	2.3	1.1	1.6	3.5
14	1.0	10	10	6.8	36	40	17	19	1.9	.56	1.3	2.7
15	.55	9.5	8.6	7.0	31	37	16	19	1.5	1.2	1.1	2.2
16	.38	9.2	8.1	6.3	30	33	17	16	1.8	2.1	.84	1.8
17	.38	8.6	4.8	6.0	28	30	19	15	11	1.9	.63	1.6
18	3.4	8.3	6.6	6.0	26	31	20	16	18	1.2	.57	1.4
19	3.4	8.1	8.3	6.1	25	31	20	20	18	.52	.58	1.2
20	1.9	8.5	7.4	6.4	23	30	19	19	16	.28	.57	1.1
21	1.9	13	7.6	6.4	22	28	15	17	14	.18	.50	.83
22	.82	14	12	6.0	22	25	14	15	12	.40	.42	.59
23	14	10	13	5.6	23	25	14	13	9.7	1.3	.34	.51
24	14	8.4	11	5.8	24	24	12	12	11	1.1	.24	.83
25	12	7.5	11	6.1	26	23	9.8	12	18	.92	.54	1.7
26	13	6.9	11	6.0	26	22	9.0	13	13	1.9	5.4	1.1
27	12	6.6	8.9	5.8	25	19	8.3	11	13	3.9	5.1	5.4
28	12	6.3	8.6	5.6	24	20	7.4	10	15	2.9	2.4	1.7
29	13	7.7	8.9	5.4	---	18	6.8	16	15	2.0	1.4	.80
30	12	7.8	8.6	5.3	---	17	5.9	18	15	1.7	1.5	.62
31	12	---	7.8	5.2	---	15	---	17	---	2.0	5.7	---
TOTAL	239.33	283.6	261.6	223.7	497.7	788	504.2	545.9	342.2	94.46	69.53	70.88
MEAN	7.72	9.45	8.44	7.22	17.8	25.4	16.8	17.6	11.4	3.05	2.24	2.36
MAX	18	14	13	11	36	40	24	30	18	12	7.1	8.0
MIN	.38	6.3	4.8	5.2	5.4	15	5.9	4.1	1.5	.18	.24	.51

CAL YR 1984 TOTAL 17308.73 MEAN 47.3 MAX 355 MIN .38
WTR YR 1985 TOTAL 3921.10 MEAN 10.7 MAX 40 MIN .18

01109000 WADING RIVER NEAR NORTON, MASS.

LOCATION.--Lat 41°56'51", long 71°10'38", Bristol County, Hydrologic Unit 01090004, on left bank 200 ft downstream from bridge on State Highway 140, 0.9 mi upstream from confluence with Rumford River, and 1.5 mi southeast of Norton.

DRAINAGE AREA.--43.3 mi^2.

PERIOD OF RECORD.--Discharge: June 1925 to current year.
Water-quality records: Water year 1967-68.

REVISED RECORDS.--WSP 871: 1938. WSP 1301: 1929-33(M). WSP 1621: 1925-58 (monthly runoff). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 55.14 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1930, nonrecording gage at same site at datum 0.62 ft higher and Oct. 1, 1930, to May 5, 1933, at same site at present datum.

REMARKS.--Estimated daily discharges: Jan. 9, 16, Feb. 4, 16. Records good. Flow regulated to some extent by Lake Mirimichi and other lakes and reservoirs upstream. Diversion upstream for municipal supply of Attleboro and small diversions to and from basin for other municipal supplies. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--60 years, 73.4 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,460 ft^3/s Mar. 19, 1968, gage height, 11.47 ft; minimum, 0.3 ft^3/s Sept. 10, 1926.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 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	1900	*159	*6.95				

Minimum discharge, 3.7 ft^3/s July 21, 22, 25, 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	7.4	28	27	35	16	55	45	19	32	27	19	49
2	25	26	25	38	18	53	60	18	35	24	24	34
3	41	23	24	45	20	51	56	41	29	21	17	28
4	33	21	30	45	20	47	44	98	25	17	13	24
5	23	23	34	42	19	57	39	89	23	14	10	20
6	18	28	41	36	20	76	36	76	31	13	9.4	17
7	15	28	59	36	20	70	35	92	31	13	8.6	16
8	14	25	52	34	21	64	41	88	27	12	9.2	15
9	13	22	41	31	21	61	48	72	24	9.7	10	15
10	12	20	37	29	20	56	45	60	21	8.5	12	29
11	10	20	38	26	21	52	42	54	19	8.0	10	44
12	10	35	38	24	23	76	38	52	16	6.8	9.2	33
13	10	50	37	23	64	145	36	52	15	5.8	8.2	24
14	9.8	39	36	21	116	141	34	48	14	5.3	7.5	19
15	8.8	31	36	21	108	117	33	43	12	5.5	7.0	16
16	8.3	28	33	21	87	98	32	40	12	7.2	6.6	15
17	7.9	25	31	19	74	85	32	38	29	7.4	6.8	13
18	7.8	23	28	18	69	75	32	38	43	6.4	6.3	12
19	7.6	22	26	19	66	72	34	43	49	5.4	5.8	10
20	7.7	20	33	20	65	70	34	46	39	4.6	5.8	9.6
21	7.8	19	36	21	61	65	33	41	32	4.1	5.4	9.0
22	8.4	23	49	19	60	59	30	37	26	5.3	5.2	8.4
23	22	26	71	17	65	54	31	33	23	7.4	4.9	7.9
24	30	23	67	18	68	51	29	29	23	5.8	4.8	8.7
25	28	20	59	19	69	48	27	26	24	4.2	5.2	12
26	25	19	52	19	68	44	24	24	26	6.3	18	13
27	25	18	45	18	64	42	21	24	26	12	30	12
28	23	18	38	17	60	39	20	23	28	12	23	12
29	30	21	38	17	---	39	21	26	31	9.7	14	9.8
30	38	27	40	17	---	37	20	26	31	8.7	22	8.2
31	34	---	37	16	---	34	---	27	---	8.1	53	---
TOTAL	560.5	751	1238	781	1403	2033	1052	1423	796	305.2	390.9	543.6
MEAN	18.1	25.0	39.9	25.2	50.1	65.6	35.1	45.9	26.5	9.85	12.6	18.1
MAX	41	50	71	45	116	145	60	98	49	27	53	49
MIN	7.4	18	24	16	16	34	20	18	12	4.1	4.8	7.9

CAL YR 1984 TOTAL 37193.8 MEAN 102 MAX 848 MIN 5.9
WTR YR 1985 TOTAL 11277.2 MEAN 30.9 MAX 145 MIN 4.1

01109060 THREEMILE RIVER AT NORTH DIGHTON, MASS.

LOCATION.--Lat 41°51'58", long 71°07'24", Bristol County, Hydrologic Unit 01090004, on right bank 800 ft downstream from Warner Boulevard at North Dighton and 1.4 mi upstream from mouth.

DRAINAGE AREA.--84.3 mi^2.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

PERIOD OF RECORD.--Discharge: July 1966 to current year.
Water-quality records: Water years 1967-68.

GAGE.--Water-stage recorder. Datum of gage is 11.38 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Mar. 5 to Apr. 24. Records good except those for estimated daily discharges, which are fair. Flow regulated by Lake Mirimichi and other lakes and reservoirs upstream. Diversions to and from basin upstream for municipal supplies may be compensating. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--19 years, 172 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,490 ft^3/s Mar. 19, 1968, gage height, 8.30 ft; minimum, 5.1 ft^3/s Sept. 8, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 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. 14	--	*290	--				

Minimum discharge, 15 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	39	81	63	75	41	114	105	60	68	67	70	115
2	108	72	63	76	43	111	120	59	74	57	58	85
3	109	66	62	85	45	106	120	115	72	53	46	65
4	96	61	70	90	44	100	100	189	64	49	37	55
5	77	60	72	87	46	120	90	190	63	41	31	46
6	62	67	88	79	46	150	84	169	78	37	28	41
7	55	68	105	74	46	150	80	183	78	36	26	38
8	50	66	105	74	44	140	92	176	72	34	32	36
9	48	61	90	58	45	125	110	162	65	32	35	35
10	44	57	80	67	48	115	105	142	60	29	30	62
11	40	56	83	61	48	110	97	126	54	27	27	73
12	40	65	83	57	53	160	88	123	50	25	25	70
13	37	78	78	53	147	250	83	126	50	23	23	56
14	37	86	76	52	160	280	80	117	48	22	22	45
15	37	75	72	52	176	240	78	106	44	22	21	39
16	35	70	70	48	170	200	76	97	47	28	20	35
17	34	65	67	49	156	180	74	94	100	29	19	33
18	34	59	64	47	142	165	79	97	105	27	18	31
19	34	57	62	47	134	150	80	102	104	24	18	29
20	34	54	70	47	131	145	78	103	91	21	18	28
21	33	52	74	45	125	140	75	100	72	19	18	26
22	33	51	105	44	123	125	74	95	60	28	18	26
23	65	52	119	43	125	115	84	86	52	28	17	24
24	78	55	119	42	131	105	80	80	55	24	16	24
25	76	55	116	42	136	100	76	75	61	23	19	27
26	72	52	101	42	137	98	73	70	58	27	65	27
27	71	50	89	43	130	94	68	66	63	34	66	29
28	67	50	82	44	121	90	61	64	69	30	55	31
29	84	56	78	44	---	86	63	70	69	27	41	29
30	96	62	78	44	---	84	62	70	70	24	50	24
31	91	---	78	42	---	80	---	65	---	23	127	---
TOTAL	1816	1859	2562	1753	2793	4228	2535	3377	2016	970	1096	1284
MEAN	58.6	62.0	82.6	56.5	99.8	136	84.5	109	67.2	31.3	35.4	42.8
MAX	109	86	119	90	176	280	120	190	105	67	127	115
MIN	33	50	62	42	41	80	61	59	44	19	16	24

CAL YR 1984 TOTAL 79234 MEAN 216 MAX 1670 MIN 28
WTR YR 1985 TOTAL 26289 MEAN 72.0 MAX 280 MIN 16

01109070 SEGREGANSET RIVER NEAR DIGHTON, MASS.

LOCATION.--Lat 41°50'25", long 71°08'36", Bristol County, Hydrologic Unit 01090004, on left bank 50 ft upstream from twin culverts on Center Street and 1.8 mi northwest of Dighton.

DRAINAGE AREA.--10.6 mi^2.

PERIOD OF RECORD.--Discharge: July 1966 to current year.
Water-quality records: Water years 1967-68.

GAGE.--Water-stage recorder. Elevation of gage is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good above 10 ft^3/s and fair below. Occasional regulation by ponds upstream. Diversion upstream for Dighton Water District. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--19 years, 22.7 ft^3/s, 29.08 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 867 ft^3/s Mar. 18, 1968, gage height, 7.51 ft; no flow at times in water years 1966, 1969, 1974, 1980, 1981, and 1983.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	1345	*84	*3.41				

Minimum discharge, 0.40 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	.76	15	9.7	12	5.0	14	16	4.1	3.6	13	30	46
2	28	12	7.8	14	5.5	14	21	3.6	4.2	8.2	30	26
3	31	9.9	7.6	17	6.1	15	18	29	3.2	5.7	16	16
4	19	8.7	13	16	6.7	13	15	69	2.1	4.2	7.8	10
5	11	10	13	15	6.7	23	13	50	3.1	3.0	4.7	7.0
6	7.0	12	20	14	6.6	33	12	32	14	2.5	3.0	5.2
7	5.3	12	30	12	6.6	27	11	39	11	2.6	2.6	4.4
8	4.5	9.5	24	12	6.6	22	12	38	6.2	2.3	3.1	3.8
9	4.2	8.2	17	11	7.1	22	15	25	4.3	1.6	11	3.2
10	3.5	7.8	15	8.2	6.9	19	14	17	3.1	1.4	7.7	9.6
11	3.0	7.8	18	6.8	7.1	16	12	14	2.0	1.3	4.9	13
12	2.8	12	18	6.8	10	38	10	13	1.5	1.2	3.5	9.6
13	2.6	13	15	6.7	57	78	9.1	21	1.5	.95	3.1	6.7
14	2.6	11	13	6.6	72	56	8.7	20	1.4	.78	2.6	4.8
15	2.6	8.7	11	6.8	51	36	8.7	15	1.1	.71	1.7	3.6
16	2.4	8.0	10	6.8	35	26	8.7	11	1.6	1.2	1.3	3.0
17	2.0	7.4	9.4	5.1	27	22	8.1	11	38	2.1	1.0	2.8
18	2.0	6.8	8.9	4.7	23	20	7.0	14	44	2.0	.84	2.6
19	2.0	6.5	9.2	5.0	22	18	6.9	20	35	1.7	.75	2.4
20	2.0	5.6	15	5.2	22	16	6.4	19	21	1.5	.73	2.1
21	1.8	5.5	15	5.4	21	15	5.9	16	11	1.2	.68	1.7
22	1.8	5.2	31	5.9	20	14	5.7	16	6.5	1.5	.66	1.5
23	11	5.0	38	6.0	23	12	6.6	12	4.6	2.2	.58	1.3
24	16	5.0	29	6.0	25	12	6.5	9.1	6.3	2.0	.46	1.3
25	15	5.0	23	6.0	24	11	5.2	7.1	15	1.8	.57	1.5
26	13	5.0	18	6.0	21	10	5.0	5.6	13	2.0	14	1.8
27	14	5.0	15	5.6	18	9.9	5.1	4.6	14	5.8	20	1.9
28	12	4.8	12	5.3	16	9.6	4.8	4.0	19	5.3	10	5.6
29	22	7.4	13	5.2	---	9.4	4.7	5.5	18	3.1	5.3	6.6
30	27	11	14	4.9	---	9.1	4.5	5.0	17	2.7	13	2.9
31	21	---	13	4.7	---	8.4	---	3.7	---	2.3	58	---
TOTAL	292.86	250.8	505.6	252.7	557.9	648.4	286.6	553.3	326.3	87.84	259.57	207.9
MEAN	9.45	8.36	16.3	8.15	19.9	20.9	9.55	17.8	10.9	2.83	8.37	6.93
MAX	31	15	38	17	72	78	21	69	44	13	58	46
MIN	.76	4.8	7.6	4.7	5.0	8.4	4.5	3.6	1.1	.71	.46	1.3
CFSM	.89	.79	1.54	.77	1.88	1.97	.90	1.68	1.03	.27	.79	.65
IN.	1.03	.88	1.77	.89	1.96	2.28	1.01	1.94	1.15	.31	.91	.73

CAL YR 1984 TOTAL 10213.44 MEAN 27.9 MAX 595 MIN .35 CFSM 2.63 IN. 35.84
WTR YR 1985 TOTAL 4229.77 MEAN 11.6 MAX 78 MIN .46 CFSM 1.09 IN. 14.84

01110000 QUINSIGAMOND RIVER AT NORTH GRAFTON, MASS.

LOCATION.--Lat 42°13'49", long 71°42'41", Worcester County, Hydrologic Unit 01090003, on right bank 800 ft downstream from dam at outlet of Hovey Pond at North Grafton and 0.3 mi upstream from Bummett Brook.

DRAINAGE AREA.--25.6 mi^2.

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

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 335 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 7, 1939, staff gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good above 10 ft^3/s, fair below. Some regulation by Lake Quinsigamond 2.3 mi upstream and by ponds upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 41.3 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft^3/s Aug. 20, 1955, gage height, 5.15 ft; no flow Aug. 6-9, 22, 1966 (caused by unusual regulation), Sept. 13-17, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 159 ft^3/s Aug. 1, gage height, 2.45 ft; minimum daily, 0.96 ft^3/s June 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	4.4	11	13	20	9.0	23	30	14	28	19	136	49
2	22	11	12	23	10	24	33	18	28	17	133	46
3	23	9.5	11	25	11	23	31	28	24	16	97	55
4	21	8.3	17	23	10	19	32	45	20	16	72	46
5	15	11	15	22	9.8	28	28	37	19	14	55	37
6	12	15	22	20	12	32	26	39	23	12	43	33
7	11	13	28	18	12	28	27	42	22	11	34	34
8	9.1	11	23	20	12	31	33	38	19	10	32	27
9	8.7	9.5	20	19	10	33	38	29	33	7.7	30	26
10	7.9	9.2	18	16	9.8	31	34	26	109	8.7	25	40
11	6.9	15	18	15	9.9	28	31	24	39	11	21	35
12	6.5	44	17	14	12	44	29	25	4.8	8.7	18	30
13	6.3	44	17	13	57	63	25	22	1.9	10	15	26
14	6.2	38	17	13	61	58	23	20	1.3	9.5	13	23
15	5.6	27	16	13	55	53	27	17	.96	16	12	20
16	4.6	25	15	13	47	45	28	16	1.4	16	11	18
17	4.1	23	14	11	40	36	25	15	13	14	9.9	16
18	4.0	17	14	11	36	39	18	20	15	12	8.3	15
19	4.0	16	15	12	31	36	20	24	16	9.4	7.1	14
20	4.2	15	18	12	28	35	20	21	15	9.4	6.8	14
21	3.9	13	17	12	25	35	18	25	13	6.4	6.1	13
22	4.0	11	31	11	23	29	18	59	11	7.2	5.6	12
23	14	10	38	11	25	28	19	52	10	6.4	5.0	11
24	15	9.7	34	10	28	27	17	44	11	4.2	4.3	13
25	14	9.2	35	10	31	28	17	36	14	2.9	8.7	20
26	16	8.9	28	11	27	25	19	30	13	11	24	18
27	16	8.5	24	9.9	29	21	17	26	14	24	28	26
28	14	8.2	23	9.6	26	22	15	25	19	19	25	38
29	15	11	23	9.3	---	21	16	30	21	15	21	33
30	14	14	23	8.9	---	21	14	25	22	12	21	29
31	13	---	21	8.6	---	19	---	21	---	13	55	---
TOTAL	325.4	476.0	637	444.3	696.5	985	728	893	581.36	368.5	982.8	817
MEAN	10.5	15.9	20.5	14.3	24.9	31.8	24.3	28.8	19.4	11.9	31.7	27.2
MAX	23	44	38	25	61	63	38	59	109	24	136	55
MIN	3.9	8.2	11	8.6	9.0	19	14	14	.96	2.9	4.3	11

CAL YR 1984 TOTAL 19170.2 MEAN 52.4 MAX 340 MIN 2.1
WTR YR 1985 TOTAL 7934.86 MEAN 21.7 MAX 136 MIN .96

01111200 WEST RIVER BELOW WEST HILL DAM, NEAR UXBRIDGE, MASS.

LOCATION.--Lat 42°06'17", long 71°36'28", Worcester County, Hydrologic Unit 01090003, on right bank 250 ft downstream from West Hill Dam, 2.2 mi northeast of Uxbridge, and 3.5 mi upstream from mouth.

DRAINAGE AREA.--27.9 mi^2.

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

REVISED RECORDS.--WDR MA-RI-83-1: 1982(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 234.35 ft above National Geodetic Vertical datum of 1929 (U.S. Army Corps of Engineers benchmark).

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by West Hill Reservoir, usable capacity, 542,000,000 ft^3. See table below for figures of monthend contents. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--23 years, 48.1 ft^3/s, 23.41 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 607 ft^3/s June 6, 1984, gage height, about 4.27 ft (mean of surge); no flow for part of Aug. 17, 1967, caused by unusual regulation; minimum daily discharge, 1.1 ft^3/s Sept. 12, 1963, Aug. 12, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 130 ft^3/s Feb. 16, gage height, 2.45 ft; minimum, 2.7 ft^3/s Aug. 1; minimum daily, 4.5 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	9.8	13	24	42	17	45	37	17	20	21	29	42
2	20	11	23	42	17	41	48	17	23	18	70	37
3	30	10	21	43	18	38	48	26	19	14	72	30
4	25	9.7	25	43	18	36	45	58	17	12	65	25
5	20	9.8	29	43	18	40	41	69	15	10	46	20
6	16	13	29	40	18	53	36	64	19	8.7	26	17
7	13	13	41	36	18	54	35	58	20	8.0	16	16
8	12	12	44	34	18	52	36	54	18	7.1	14	16
9	11	11	40	30	19	51	46	45	17	6.4	21	15
10	9.5	10	36	29	19	52	45	37	15	6.1	20	32
11	9.2	11	34	27	19	48	40	32	13	6.3	16	49
12	8.8	43	34	26	18	50	36	29	12	6.2	22	47
13	8.3	66	34	25	46	66	32	27	14	5.8	22	36
14	7.4	62	36	25	93	78	29	25	14	5.4	15	27
15	7.3	49	36	24	100	79	29	24	12	6.7	12	21
16	7.3	42	34	23	107	72	28	23	11	10	11	18
17	6.9	34	32	22	90	63	27	21	15	10	9.2	16
18	5.1	29	31	21	73	53	24	22	22	8.6	7.4	14
19	4.9	25	29	21	55	48	23	33	23	7.5	7.0	13
20	4.9	22	31	21	48	46	22	34	20	6.2	7.0	12
21	4.7	20	35	21	45	46	21	29	16	5.1	7.0	11
22	4.8	19	41	21	43	45	19	27	13	4.8	6.5	11
23	11	18	57	21	43	43	21	25	11	4.9	5.8	9.7
24	15	18	62	20	50	42	22	25	11	4.6	5.6	9.9
25	14	18	62	20	57	38	21	24	10	4.5	6.3	14
26	12	17	61	20	59	36	20	21	9.9	5.9	15	17
27	14	17	52	20	56	35	19	19	10	12	28	8.5
28	15	16	44	18	51	34	18	17	13	14	21	88
29	15	17	42	18	---	34	19	20	19	10	15	118
30	16	23	42	17	---	33	19	21	22	8.4	12	99
31	15	---	42	17	---	32	---	19	---	7.7	27	---
TOTAL	372.9	678.5	1183	830	1233	1483	906	962	473.9	265.9	656.8	889.1
MEAN	12.0	22.6	38.2	26.8	44.0	47.8	30.2	31.0	15.8	8.58	21.2	29.6
MAX	30	66	62	43	107	79	48	69	23	21	72	118
MIN	4.7	9.7	21	17	17	32	18	17	9.9	4.5	5.6	8.5
(†)	2.0	2.4	4.4	2.0	5.5	3.7	2.2	2.6	2.8	2.8	4.1	4.4
MEAN‡	12.3	22.8	38.9	25.9	45.5	47.2	29.6	31.2	15.9	8.58	21.7	29.8
CFSM‡	.44	.82	1.39	.93	1.63	1.69	1.06	1.12	.57	.31	.78	1.07
IN‡	.51	.91	1.61	1.07	1.70	1.95	1.19	1.29	.63	.35	.90	1.19

CAL YR 1984	TOTAL	27124.0	MEAN	74.1	MAX	581	MIN	4.7	MEAN‡	73.7	CFSM‡	2.64	IN‡	35.95
WTR YR 1985	TOTAL	9934.1	MEAN	27.2	MAX	118	MIN	4.5	MEAN‡	27.3	CFSM‡	.98	IN‡	13.29

† Monthend contents, in millions of cubic feet, in West Hill Reservoir; records provided by U.S. Army Corps of Engineers.
‡ Adjusted for change in contents in West Hill Reservoir.

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.
(National stream-quality accounting network station)

LOCATION.--Lat 42°01'16", long 71°34'04", Worcester County, Hydrologic Unit 01090003, on left bank 400 ft above railroad bridge, 0.8 mi southeast of Millville, and 1.4 mi upstream from Branch River.

DRAINAGE AREA.--277 mi².

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1969 to December 1980.
pH: July 1969 to December 1980.
WATER TEMPERATURES: July 1969 to December 1980.
DISSOLVED OXYGEN: July 1969 to December 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)
OCT												
10...	1055	118	265	6.40	--	14.0	--	--	770	8.0	77	--
NOV												
07...	1000	193	228	6.85	14.0	9.0	--	--	770	7.6	65	--
DEC												
05...	1110	273	194	7.20	3.5	3.0	--	1.5	760	11.5	86	21
JAN												
09...	0910	225	265	6.70	-10.0	1.0	--	--	760	13.0	92	--
FEB												
06...	0945	180	340	7.10	-6.5	0.5	--	--	752	9.6	68	--
MAR												
13...	1000	1000	248	7.00	6.0	5.0	--	8.5	747	10.3	82	--
APR												
17...	0835	293	248	6.00	10.5	12.5	10	--	760	10.4	98	21
MAY												
15...	1000	255	250	6.70	--	16.0	--	--	764	6.8	69	--
JUN												
04...	1100	--	264	6.90	--	20.5	--	1.5	758	6.4	72	--
05...	1020	225	270	6.40	--	19.5	--	1.1	760	6.0	66	27
JUL												
10...	0930	112	335	6.60	--	23.0	--	--	757	5.8	68	--
AUG												
14...	1045	141	260	6.84	27.5	23.5	--	10	760	6.8	80	--
SEP												
11...	0815	350	182	6.00	--	18.0	25	2.5	756	6.8	72	28

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD 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)
OCT												
10...	--	1400	84	20	--	--	--	--	--	--	--	--
NOV												
07...	5.0	27000	4900	530	--	--	--	--	--	--	--	--
DEC												
05...	--	39000	4000	170	--	--	--	--	--	--	--	--
JAN												
09...	--	28000	6100	960	--	--	--	--	--	--	--	--
FEB												
06...	--	8800	210	64	--	--	--	--	--	--	--	--
MAR												
13...	--	112000	K9200	2600	29	14	9.1	1.5	33	69	3	2.1
APR												
17...	--	1800	80	K8	38	23	12	2.0	27	58	2	3.3
MAY												
15...	3.0	1800	120	K12	--	--	--	--	--	--	--	--
JUN												
04...	--	--	--	--	38	21	12	2.0	28	59	2	2.8
05...	--	1200	95	120	--	--	--	--	--	--	--	--
JUL												
10...	2.0	1300	2000	960	--	--	--	--	--	--	--	--
AUG												
14...	--	1300	70	K300	42	24	13	2.2	30	59	2	3.6
SEP												
11...	3.0	58000	3300	800	30	18	9.5	1.5	20	56	2	3.4

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

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	CARBONATE IT-FLD (MG/L AS CO3)	BICARBONATE IT-FLD (MG/L AS HCO3)	ALKALINITY, CARBONATE IT-FLD (MG/L - CACO3)	ALKALINITY LAB (MG/L AS CACO3)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)
OCT												
10...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
07...	0	13	11	--	12	--	--	--	--	--	--	--
DEC												
05...	--	--	--	--	--	--	--	--	--	--	--	4
JAN												
09...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
06...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
13...	0	18	15	8.0	16	16	54	0.1	5.0	139	130	--
APR												
17...	--	--	--	15	--	17	47	--	--	--	--	13
MAY												
15...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	0	21	17	18	18	18	44	0.2	5.0	150	120	--
05...	--	--	--	--	--	--	--	--	--	--	--	3
JUL												
10...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
14...	0	22	18	19	19	17	47	0.2	5.7	160	130	--
SEP												
11...	--	--	--	13	12	16	30	--	--	--	--	13

DATE	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
OCT												
10...	--	2.76	0.14	2.90	--	1.10	--	--	0.4	1.5	4.4	19
NOV												
07...	--	1.94	0.06	2.00	--	1.30	--	--	--	--	--	--
DEC												
05...	139	0.88	0.02	0.90	--	2.10	--	--	0.4	2.5	3.4	15
JAN												
09...	--	0.88	0.02	0.90	--	1.60	--	--	0.6	2.2	3.1	14
FEB												
06...	--	0.66	0.04	0.70	--	2.70	--	--	1.2	3.9	4.6	20
MAR												
13...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
17...	143	0.84	0.06	0.90	--	0.93	--	--	0.67	1.6	2.5	11
MAY												
15...	--	1.42	0.08	1.50	--	0.51	--	--	1.9	2.4	3.9	17
JUN												
04...	--	--	--	--	1.60	--	0.17	0.22	--	0.5	--	--
05...	170	1.88	0.12	2.00	--	0.45	--	--	0.45	0.9	2.9	13
JUL												
10...	--	1.08	0.22	1.30	--	0.73	--	--	1.1	1.8	3.1	14
AUG												
14...	--	1.78	0.02	1.80	2.10	<0.01	0.05	0.06	--	0.6	2.4	11
SEP												
11...	148	1.34	0.06	1.40	--	0.39	--	--	0.71	1.1	2.5	11

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

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)
OCT												
10...	0.46	--	--	0.39	--	--	--	--	--	--	--	--
NOV												
07...	--	--	--	0.23	--	--	--	--	--	--	--	--
DEC												
05...	0.22	--	--	0.14	--	--	--	--	--	--	--	--
JAN												
09...	0.44	--	--	0.30	--	--	--	--	--	--	--	--
FEB												
06...	0.50	--	--	0.37	--	--	--	--	--	--	--	--
MAR												
13...	--	--	--	--	--	--	30	--	1	18	0.8	--
APR												
17...	0.23	--	--	0.17	--	90	--	3	--	--	--	70
MAY												
15...	0.34	--	--	0.21	--	--	--	--	--	--	--	--
JUN												
04...	0.21	0.64	0.14	--	0.15	--	30	--	2	17	2	--
05...	0.28	0.86	--	0.22	--	--	--	--	--	--	--	--
JUL												
10...	0.35	1.1	--	0.34	--	--	--	--	--	--	--	--
AUG												
14...	0.22	--	0.16	0.19	0.13	--	--	--	2	21	<0.5	--
SEP												
11...	0.27	0.83	--	0.21	--	330	--	4	--	--	--	90

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT											
10...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	--	3	--	7	<3	--	8	--	130	--	2
APR											
17...	2	--	10	--	--	11	--	730	--	4	--
MAY											
15...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	--	<1	--	10	<3	--	15	--	180	--	5
05...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
AUG											
14...	--	2	--	10	<3	--	17	--	230	--	3
SEP											
11...	3	--	30	--	--	33	--	1500	--	14	--

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

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
OCT											
10...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	<4	--	110	--	<0.1	--	<10	--	20	--	<1
APR											
17...	--	130	--	0.1	--	31	--	20	--	<1	--
MAY											
15...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	11	--	81	--	<0.1	--	<10	--	30	--	<1
05...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
AUG											
14...	5	--	27	--	0.1	--	<10	--	27	--	<1
SEP											
11...	--	120	--	0.2	--	1	--	39	--	<1	--

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	PHENOLS TOTAL (UG/L)	OIL AND GREASE, TOTAL RECOV. GRAVI-METRIC (MG/L)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)
OCT											
10...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	--	<1	55	<6	--	81	--	--	--	--	--
APR											
17...	2	--	--	--	220	--	4	<1	<0.1	--	<0.01
MAY											
15...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	--	<1	70	<6	--	40	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
AUG											
14...	--	<1	74	<6	--	40	--	--	--	--	--
SEP											
11...	1	--	--	--	50	--	<1	1	<0.1	15	<0.01

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

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
10...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	--	--	--	--	--	--	--	--	--	--	--
APR											
17...	--	<0.1	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--
MAY											
15...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
AUG											
14...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	<0.1	<0.1	<1.0	<0.01	<0.1	<0.01	25	<0.01	<0.1	<0.01	0.7

DATE	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)
OCT											
10...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	--	--	--	--	--	--	--	--	--	--	--
APR											
17...	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
MAY											
15...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
AUG											
14...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01

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

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOT-TOM MA-TERIAL (UG/KG)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
10...	--	--	--	--	--	--	--	--	--	--	--
NOV											
07...	--	--	--	--	--	--	--	--	--	4	100
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	--	--	--	--	--	--	--	--	--	--	--
APR											
17...	--	<0.01	--	<0.1	--	<0.1	--	<1	--	--	--
MAY											
15...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	--	--	--	--	--	--	--	--	--	5	84
05...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
AUG											
14...	--	--	--	--	--	--	--	--	--	3	62
SEP											
11...	<0.1	<0.01	<0.1	<0.1	<1.0	<0.1	<1.00	<1	<10	--	--

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

01111300 NIPMUC RIVER NEAR HARRISVILLE, R.I.

LOCATION.--Lat 41°58'52", long 71°41'11", Providence County, Hydrologic Unit 01090003, on left bank 1.0 mi upstream from mouth and 1.2 mi northwest of Harrisville.

DRAINAGE AREA.--16.0 mi^2.

PERIOD OF RECORD.--Discharge: March 1964 to current year.
Water-quality records: Water year 1968.

GAGE.--Water-stage recorder. Elevation of gage is 340 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 10-23, Jan. 6, Jan. 8 to Feb. 25. Records good except those for period of doubtful gage-height record, Oct 1-9, Oct. 17 to Jan. 4, which are fair, and those for estimated daily discharges, which are poor. One observation of water temperature and specific conductance was made during the year.

AVERAGE DISCHARGE.--21 years, 30.5 ft^3/s, 25.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft^3/s Jan. 25, 1979, gage height, 8.53 ft, from rating curve extended above 530 ft^3/s; minimum, 0.09 ft^3/s Sept. 10, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 270 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	1700	a*140	b*5.13				

a Estimated.
b Ice jam.

Minimum discharge, 1.3 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	1.8	8.7	15	20	12	25	30	11	17	14	89	27
2	15	7.4	11	23	12	24	36	10	15	11	43	17
3	12	7.0	13	26	11	23	29	52	10	9.2	22	14
4	7.0	7.0	29	23	11	20	25	85	8.2	8.9	15	10
5	4.8	9.2	20	23	11	44	23	43	9.0	7.6	11	8.9
6	4.1	11	30	22	10	56	22	38	18	6.6	9.4	8.1
7	3.9	8.7	38	21	10	38	19	52	13	6.1	8.2	7.8
8	3.4	7.8	25	19	10	39	27	38	9.3	5.6	20	8.2
9	3.3	7.4	20	18	9.7	41	32	29	9.0	5.0	27	9.0
10	3.3	7.4	20	17	9.4	34	25	25	7.7	4.4	14	44
11	3.3	17	20	17	9.4	30	22	21	6.0	4.1	10	31
12	3.3	100	24	17	12	74	19	22	6.9	4.0	9.5	18
13	3.3	56	25	16	110	99	17	24	14	3.6	7.7	14
14	3.3	32	22	16	90	58	16	21	11	3.5	6.7	11
15	3.3	22	18	16	55	46	16	16	8.1	8.7	5.5	9.1
16	2.8	18	17	15	36	38	16	15	8.6	12	5.0	8.2
17	2.4	16	16	15	31	35	16	14	29	8.4	4.5	7.4
18	2.4	14	16	15	28	35	15	15	23	6.0	4.0	6.8
19	2.4	13	16	14	26	32	14	19	16	4.6	3.9	6.6
20	2.4	11	27	14	25	32	14	17	11	3.9	3.9	6.4
21	2.4	10	22	14	24	31	14	15	8.8	3.2	3.9	5.1
22	2.6	9.9	53	14	23	28	15	14	7.1	10	3.9	5.1
23	19	9.7	61	13	33	28	22	12	6.4	10	3.7	5.0
24	16	9.7	39	13	40	26	18	10	8.7	6.0	3.2	5.2
25	8.7	9.7	33	13	43	24	16	9.1	11	4.5	5.3	9.3
26	10	9.7	30	12	38	23	14	8.6	9.6	9.0	25	8.5
27	11	9.7	25	12	34	22	14	8.0	10	23	49	16
28	9.2	9.7	23	12	29	22	12	8.4	19	11	24	42
29	16	13	25	11	---	21	12	15	25	7.0	13	22
30	20	18	27	11	---	20	12	12	22	5.2	10	14
31	12	---	23	11	---	19	---	9.5	---	7.6	34	---
TOTAL	214.4	489.7	783	503	792.5	1087	582	688.6	377.4	233.7	494.3	404.7
MEAN	6.92	16.3	25.3	16.2	28.3	35.1	19.4	22.2	12.6	7.54	15.9	13.5
MAX	20	100	61	26	110	99	36	85	29	23	89	44
MIN	1.8	7.0	11	11	9.4	19	12	8.0	6.0	3.2	3.2	5.0
CFSM	.43	1.02	1.58	1.01	1.77	2.19	1.21	1.39	.79	.47	.99	.84
IN.	.50	1.14	1.82	1.17	1.84	2.53	1.35	1.60	.88	.54	1.15	.94

CAL YR 1984 TOTAL 15011.7 MEAN 41.0 MAX 500 MIN 1.2 CFSM 2.56 IN. 34.90
WTR YR 1985 TOTAL 6650.3 MEAN 18.2 MAX 110 MIN 1.8 CFSM 1.14 IN. 15.46

01111500 BRANCH RIVER AT FORESTDALE, R.I.

LOCATION.--Lat 41°59'47", long 71°33'47", Providence County, Hydrologic Unit 01090003, on left bank 20 ft upstream from abandoned bridge site, 400 ft downstream from milldam at Forestdale, 1 mi east of Slatersville, and 1.6 mi upstream from mouth.
DRAINAGE AREA.--91.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: September to December 1909 and January 1912 to July 1913 (gage heights only; published as "at Branch Village"), January 1940 to current year.
REVISED RECORDS.--WSP 2101: Drainage area.
GAGE.--Water-stage recorder. Elevation of gage is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 28, 1913, nonrecording gage at site 1 mi downstream at different datum.
REMARKS.--Estimated daily discharges: Jan. 10. Records excellent. Occasional regulation by pond upstream. Prior to 1957, greater regulation by mills and reservoirs upstream.
AVERAGE DISCHARGE.--45 years, 172 ft^3/s, 25.61 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,470 ft^3/s Jan. 25, 1979, gage height, 11.80 ft; maximum gage height, 11.90 ft Mar. 18, 1968; minimum daily discharge, 5.2 ft^3/s Oct. 7, 1948.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1886, about 5,800 ft^3/s Mar. 19, 1936, by computation of flow over dam 1 mi upstream.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 880 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	1945	*588	4.35				

Minimum daily discharge, 29 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	66	110	105	121	65	128	132	58	73	140	180	164
2	156	108	92	130	70	120	164	55	85	98	230	125
3	145	95	94	139	71	114	143	145	68	80	140	93
4	89	89	142	131	66	107	127	403	57	72	100	78
5	58	97	140	127	62	159	118	268	60	64	77	69
6	44	107	164	132	72	254	115	213	89	57	71	64
7	39	94	212	133	71	195	100	285	88	52	70	67
8	47	81	167	127	65	181	118	251	71	47	99	68
9	86	75	136	101	65	196	139	190	65	44	176	72
10	95	76	124	92	65	172	124	156	57	42	123	148
11	68	101	123	87	65	152	109	134	50	37	91	155
12	61	337	135	86	85	236	100	139	48	35	85	113
13	52	306	140	84	469	447	92	153	48	34	80	87
14	40	166	129	83	463	333	89	137	52	33	68	74
15	41	117	118	83	303	254	86	116	47	44	56	65
16	46	98	117	76	218	204	83	100	49	59	47	58
17	47	87	107	74	178	178	77	92	106	60	41	55
18	46	81	98	73	158	168	72	97	121	52	35	52
19	44	83	99	77	146	156	69	106	100	47	34	50
20	43	84	128	77	145	148	69	104	77	42	35	48
21	46	84	129	71	135	139	64	87	64	37	36	46
22	49	86	207	67	131	128	65	79	55	63	34	43
23	156	111	288	75	159	122	94	72	51	61	31	41
24	142	117	216	72	195	119	95	64	61	51	29	56
25	109	116	187	72	210	113	82	60	92	42	39	63
26	110	112	164	72	182	107	77	54	82	62	89	81
27	115	96	141	70	159	104	73	53	77	80	208	217
28	96	74	128	68	142	103	69	54	111	79	158	239
29	136	91	132	67	---	99	65	73	154	57	108	118
30	159	112	138	64	---	94	63	72	175	47	86	79
31	126	---	126	63	---	91	---	61	---	53	129	---
TOTAL	2557	3391	4426	2794	4215	5121	2873	3931	2333	1771	2785	2688
MEAN	82.5	113	143	90.1	151	165	95.8	127	77.8	57.1	89.8	89.6
MAX	159	337	288	139	469	447	164	403	175	140	230	239
MIN	39	74	92	63	62	91	63	53	47	33	29	41
CFSM	.90	1.24	1.57	.99	1.66	1.81	1.05	1.39	.85	.63	.98	.98
IN.	1.04	1.38	1.81	1.14	1.72	2.09	1.17	1.60	.95	.72	1.14	1.10

CAL YR 1984 TOTAL 87019 MEAN 238 MAX 2680 MIN 22 CFSM 2.61 IN. 35.49
WTR YR 1985 TOTAL 38885 MEAN 107 MAX 469 MIN 29 CFSM 1.17 IN. 15.86

01111500 BRANCH RIVER AT FORESTDALE, R.I.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1968, 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLO INSTAN-TANEOUS (CFS)	SPE-CIFIC DUCT-ANCE (US/CM)	(STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	BID-ITY (NTU)	COLOR PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT 10...	1215	90	84	7.00	14.0	--	--	10.2	98	--	--
NOV 07...	1415	89	75	6.10	10.5	--	--	10.8	96	--	2.0
DEC 05...	1215	137	82	7.50	4.0	0.5	--	13.1	--	21	--
JAN 09...	1020	92	79	7.10	1.0	--	--	13.8	--	--	--
FEB 06...	1115	70	92	7.70	0.5	--	--	13.0	91	--	--
MAR 13...	1240	170	70	5.50	6.0	--	--	13.0	107	--	1.0
APR 17...	1135	76	78	5.70	12.0	--	15	10.7	100	15	--
MAY 15...	1050	117	68	6.90	17.5	--	--	9.2	96	--	1.0
JUN 05...	1200	51	82	6.60	20.0	1.0	--	8.2	90	24	--
JUL 10...	1045	43	83	7.10	25.0	--	--	7.6	93	--	1.0
AUG 14...	1230	66	75	5.80	26.5	--	--	7.9	99	--	--
SEP 11...	1105	156	78	6.80	20.0	1.0	30	9.0	100	23	1.0

DATE	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 10...	3800	510	K28	--	--	--	--	--	--	--	--
NOV 07...	1900	240	44	--	--	--	--	--	--	--	--
DEC 05...	1800	160	56	--	--	--	--	--	--	--	--
JAN 09...	2100	100	44	--	--	--	--	--	--	--	--
FEB 06...	2900	>180	45	--	--	--	--	--	--	--	--
MAR 13...	840	K140	K20	--	--	--	--	--	--	--	--
APR 17...	920	83	K2	14	7	4.2	0.87	9.3	1.1	7.0	8.9
MAY 15...	2900	54	K330	--	--	--	--	--	--	--	--
JUN 05...	1500	290	97	--	--	--	--	--	--	--	--
JUL 10...	2000	>6000	62	--	--	--	--	--	--	--	--
AUG 14...	4000	K240	160	--	--	--	--	--	--	--	--
SEP											

> ACTUAL VALUE IS KNOWN TO BE GREATER THAN THE VALUE SHOWN
K RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

01111500 BRANCH RIVER AT FORESTDALE, R.I.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
OCT											
10...	--	--	--	--	0.01	<0.10	0.06	0.14	0.2	--	--
NOV											
07...	--	--	--	--	<0.01	<0.10	0.28	--	0.2	--	--
DEC											
05...	--	3	60	--	<0.01	0.20	0.11	0.39	0.5	0.7	3.1
JAN											
09...	--	--	--	--	<0.01	0.30	0.24	0.36	0.6	0.9	4.0
FEB											
06...	--	--	--	0.27	0.03	0.30	0.06	0.54	0.6	0.9	4.0
MAR											
13...	--	--	--	0.27	0.03	0.30	0.10	0.3	0.4	0.7	3.1
APR											
17...	16	5	54	--	<0.01	0.20	0.02	0.88	0.9	1.1	4.9
MAY											
15...	--	--	--	0.19	0.01	0.20	0.16	0.84	1.0	1.2	5.3
JUN											
05...	--	5	158	0.29	0.01	0.30	0.28	0.42	0.7	1.0	4.4
JUL											
10...	--	--	--	--	0.01	--	--	0.0	2.1	--	--
AUG											
14...	--	--	--	--	<0.01	<0.10	0.05	0.35	0.4	--	--
SEP											
11...	13	1	35	--	<0.01	0.20	0.17	0.33	0.5	0.7	3.1

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHENOLS TOTAL (UG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT											
10...	0.05	--	0.02	--	--	--	--	--	--	--	--
NOV											
07...	0.04	--	0.01	--	--	--	--	--	--	--	--
DEC											
05...	<0.01	--	0.02	--	--	--	--	--	--	--	--
JAN											
09...	0.02	--	<0.01	--	--	--	--	--	--	--	--
FEB											
06...	0.04	--	0.02	--	--	--	--	--	--	--	--
MAR											
13...	0.03	--	0.01	--	--	--	--	--	--	--	--
APR											
17...	0.11	--	0.01	2	1	1	30	<1	10	3	430
MAY											
15...	0.02	--	<0.01	--	--	--	--	--	--	--	--
JUN											
05...	0.06	0.18	0.03	--	--	--	--	--	--	--	--
JUL											
10...	<0.01	--	0.07	--	--	--	--	--	--	--	--
AUG											
14...	0.01	0.03	0.02	--	--	--	--	--	--	--	--
SEP											
11...	0.05	0.15	<0.01	5	1	<1	30	1	20	24	730

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01111500 BRANCH RIVER AT FORESTDALE, R.I.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
OCT 10...	--	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	--	--	--	--
APR 17...	2	70	<0.1	7	<1	2	40	<0.1	--	--	<0.1
MAY 15...	--	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 11...	6	90	0.1	2	<1	<1	20	<0.1	38	<1.0	<0.1

DATE	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 10...	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	--	--	--
APR 17...	<0.01	--	<0.1	--	<0.01	--	<0.01	--	<0.01	--
MAY 15...	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--	--
SEP 11...	<0.01	<0.1	<0.1	<1.0	<0.01	6.6	<0.01	15	<0.01	5.5

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01111500 BRANCH RIVER AT FORESTDALE, R.I.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT 10...	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	--	--	--
APR 17...	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--
MAY 15...	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--	--
SEP 11...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 10...	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	--	--	--
APR 17...	<0.01	--	<0.01	--	<0.01	--	<0.1	--	<1	--
MAY 15...	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--	--
SEP 11...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.1	<1.00	<1	<10

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01112500 BLACKSTONE RIVER AT WOONSOCKET, R.I.

LOCATION.--Lat 42°00'22", long 71°30'13", Providence County, Hydrologic Unit 01090003, on right bank 50 ft upstream from Peters River pressure conduit at Woonsocket. Records include flow of Peters River.

DRAINAGE AREA.--416 mi^2.

PERIOD OF RECORD.--Discharge: February 1929 to current year.
Water-quality records: Water years 1952-53, 1957-58, 1962-67.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1931(M). WSP 871: 1938. WSP 1051: 1931.

GAGE.--Water-stage recorder. Datum of gage is 107.42 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated by powerplants, by West Hill Reservoir since May 1961, and by other reservoirs upstream. Extremes and figures of daily discharge include flow diverted from Nashua River basin and, at times since January 1966, from Quabbin Reservoir for supply of Worcester, MA, and, prior to July 1964, flow diverted around station in Hamlet Trench. See table with station 01111200 for monthend contents of West Hill Reservoir.

AVERAGE DISCHARGE.--56 years, 765 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,900 ft^3/s Aug. 19, 1955, gage height, 21.8 ft, from floodmarks, from rating curve extended above 15,000 ft^3/s on basis of slope-area measurement of peak flow (affected by failure of Horseshoe Dam on Mill River); minimum daily, 21 ft^3/s Aug. 11, 1934 (flow diverted around station in Hamlet Trench not included).
Maximum discharge since at least 1645, that of Aug. 19, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,230 ft^3/s Feb. 13, gage height, 4.85 ft; minimum daily, 70 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	214	275	377	529	280	611	621	300	410	542	930	794
2	566	315	359	592	302	563	759	281	476	332	1770	632
3	654	299	371	649	313	480	661	590	369	246	1070	494
4	414	251	535	574	390	511	611	1280	289	264	797	429
5	244	313	474	574	376	682	573	996	323	256	602	386
6	220	421	566	503	279	988	548	834	418	256	457	346
7	214	303	776	503	335	801	510	993	380	217	399	330
8	217	302	639	521	374	752	599	885	331	185	447	331
9	413	273	500	482	362	829	771	716	310	193	558	373
10	294	261	514	454	371	739	675	642	282	184	430	658
11	237	353	485	442	311	675	612	548	251	217	346	809
12	123	1160	537	466	365	902	537	524	328	188	333	656
13	164	1150	538	516	1550	1590	505	553	353	177	354	519
14	206	758	516	391	1690	1390	443	513	298	186	263	416
15	217	593	491	369	1320	1140	464	455	250	226	227	372
16	219	491	442	443	997	936	481	396	254	306	233	354
17	220	469	418	369	798	791	403	399	440	256	228	331
18	222	433	430	357	713	791	406	417	505	220	218	308
19	220	405	406	353	652	728	402	534	403	195	258	291
20	210	419	551	375	638	714	365	469	328	174	195	280
21	144	393	534	335	592	697	364	464	259	154	193	269
22	207	364	749	429	559	623	362	566	238	228	180	245
23	496	350	1090	446	663	593	426	624	224	219	173	236
24	508	355	882	358	754	579	426	485	281	176	160	265
25	386	346	797	306	846	550	416	406	287	159	70	452
26	350	351	688	330	792	529	396	346	303	237	378	448
27	403	347	630	387	726	488	363	280	280	389	707	709
28	438	294	529	352	658	520	342	397	385	333	568	1250
29	457	383	534	302	---	488	335	431	499	255	379	985
30	474	482	583	307	---	470	331	407	494	223	334	633
31	312	---	551	302	---	436	---	337	---	228	581	---
TOTAL	9663	12909	17492	13316	18006	22586	14707	17068	10248	7421	13838	14601
MEAN	312	430	564	430	643	729	490	551	342	239	446	487
MAX	654	1160	1090	649	1690	1590	771	1280	505	542	1770	1250
MIN	123	251	359	302	279	436	331	280	224	154	70	236

CAL YR 1984 TOTAL 375503 MEAN 1026 MAX 8410 MIN 85
WTR YR 1985 TOTAL 171855 MEAN 471 MAX 1770 MIN 70

01112900 BLACKSTONE RIVER AT MANVILLE, R.I.

LOCATION.--Lat 41°58'18", long 71°28'14", Providence County, Hydrologic Unit 01090003, at Manville Road Bridge, 400 ft downstream from milldam at Manville, and 2.5 mi downstream from Woonsocket Sewage Treatment Plant.

PERIOD OF RECORD.--Water years 1970, 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT											
10...	1335	337	220	6.90	14.0	--	--	9.9	95	--	--
NOV											
07...	1540	103	230	6.50	10.0	--	--	10.4	91	--	3.0
DEC											
05...	1315	415	190	7.20	4.0	0.5	--	12.8			
JAN											
09...	1230	463	238	6.50	1.0	--	--	13.8	--	--	--
FEB											
06...	1225	278	375	7.10	0.5	--	--	14.2	100	--	--
MAR											
13...	1330	1670	200	5.90	6.5	--	--	12.5	103	--	4.0
APR											
17...	1335	415	225	5.90	12.0	--	20	10.5	98	20	--
MAY											
15...	1215	178	177	6.80	18.0	--	--	8.6	90	--	2.0
JUN											
05...	1245	311	235	6.00	21.0	2.0	--	8.2	92	30	--
JUL											
10...	1210	167	280	6.60	25.0	--	--	8.2	100	--	2.0
AUG											
14...	1315	305	225	6.20	25.0	--	--	8.1	99	--	--
SEP											
11...	1415	781	215	6.90	20.0	2.0	25	8.0	89	26	2.0

DATE	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT											
10...	6200	1100	K2	--	--	--	--	--	--	--	--
NOV											
07...	96000	5600	K34	--	--	--	--	--	--	--	--
DEC											
05...	9200	>2000	43	--	--	--	--	--	--	--	--
JAN											
09...	17000	>2500	54	--	--	--	--	--	--	--	--
FEB											
06...	>55000	>4100	160	--	--	--	--	--	--	--	--
MAR											
13...	38000	2900	370	--	--	--	--	--	--	--	--
APR											
17...	8000	1200	<4	35	21	11	1.9	26	3.1	14	17
MAY											
15...	2800	K90	K28	--	--	--	--	--	--	--	--
JUN											
05...	2300	420	600	--	--	--	--	--	--	--	--
JUL											
10...	12000	>6000	K20	--	--	--	--	--	--	--	--
AUG											
14...	2900	K24	K10	--	--	--	--	--	--	--	--
SEP											
11...	4200	520	K18	31	17	9.8	1.5	23	3.5	14	16

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.
> ACTUAL VALUE IS KNOWN TO BE GREATER THAN THE VALUE SHOWN.
K RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

01112900 BLACKSTONE RIVER AT MANVILLE, R.I.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGE", NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2 NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
OCT											
10...	--	--	--	1.70	0.00	1.70	0.54	0.36	0.9	2.6	12
NOV											
07...	--	--	--	1.84	0.06	1.90	1.10	0.2	1.3	3.2	14
DEC											
05...	--	4	126	0.88	0.02	0.90	1.30	--	1.2	2.1	9.3
JAN											
09...	--	--	--	0.68	0.02	0.70	1.20	0.7	1.9	2.6	12
FEB											
06...	--	--	--	0.75	0.05	0.80	2.90	1.5	4.4	5.2	23
MAR											
13...	--	--	--	0.48	0.02	0.50	1.10	0.6	1.7	2.2	9.7
APR											
17...	43	3	128	0.75	0.05	0.80	0.83	1.4	2.2	3.0	13
MAY											
15...	--	--	--	1.06	0.04	1.10	0.35	1.2	1.6	2.7	12
JUN											
05...	--	11	135	1.33	0.07	1.40	0.77	0.53	1.3	2.7	12
JUL											
10...	--	--	--	--	<0.01	<0.10	0.05	0.75	0.8	--	--
AUG											
14...	--	--	--	1.28	0.02	1.30	0.08	0.72	0.8	2.1	9.3
SEP											
11...	33	5	143	1.45	0.05	1.50	0.44	0.36	0.8	2.3	10

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHENOLS TOTAL (UG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT											
10...	0.40	--	0.33	--	--	--	--	--	--	--	--
NOV											
07...	0.41	--	0.34	--	--	--	--	--	--	--	--
DEC											
05...	0.18	--	0.17	--	--	--	--	--	--	--	--
JAN											
09...	0.35	--	0.25	--	--	--	--	--	--	--	--
FEB											
06...	0.65	--	0.55	--	--	--	--	--	--	--	--
MAR											
13...	0.40	--	0.23	--	--	--	--	--	--	--	--
APR											
17...	0.30	--	0.26	6	<1	2	80	1	10	8	600
MAY											
15...	0.33	--	0.21	--	--	--	--	--	--	--	--
JUN											
05...	0.37	1.1	0.27	--	--	--	--	--	--	--	--
JUL											
10...	<0.01	--	<0.01	--	--	--	--	--	--	--	--
AUG											
14...	0.28	0.86	0.24	--	--	--	--	--	--	--	--
SEP											
11...	0.24	0.74	0.20	6	<1	2	70	2	20	35	1100

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01112900 BLACKSTONE RIVER AT MANVILLE, R.I.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	TOTAL RECOV-ERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	CB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
OCT 10...	--	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	--	--	--	--
APR 17...	2	110	<0.1	19	<1	1	40	<0.1	--	--	<0.1
MAY 15...	--	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 11...	15	80	0.2	28	<1	<1	40	<0.1	200	<1.0	<0.1

DATE	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/')	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 10...	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	--	--	--
APR 17...	<0.01	--	<0.1	--	<0.01	--	<0.01	--	<0.01	--
MAY 15...	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--	--
SEP 11...	<0.01	<0.1	<0.1	<1.0	<0.01	13	<0.01	4.9	<0.01	3.6

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01112900 BLACKSTONE RIVER AT MANVILLE, R.I.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT 10...	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	--	--	--
APR 17...	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--
MAY 15...	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--	--
SEP 11...	<0.01	4.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 10...	--	--	--	--	--	--	--	--	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	--	--	--
APR 17...	<0.01	--	<0.01	--	<0.01	--	<0.1	--	<1	--
MAY 15...	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--	--
SEP 11...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.1	<1.00	<1	<10

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01114000 MOSHASSUCK RIVER AT PROVIDENCE, R.I.

LOCATION.--Lat 41°50'02", long 71°24'42", Providence County, Hydrologic Unit 01090004, on left bank 800 ft upstream from bridge on U.S. Highway 44 at Providence and 0.5 mi above mouth.

DRAINAGE AREA.--23.1 mi^2.

PERIOD OF RECORD.--Discharge: June 1963 to current year.
Water-quality records: Water year 1971.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.19 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 7, 1973, at datum 0.88 ft lower. Mar. 10, 1972, to Nov. 7, 1973, stage record obtained at site 200 ft upstream.

REMARKS.--Estimated daily discharges: Mar. 26-28, Apr. 4-22. Records good except those for estimated daily discharges, which are poor. Occasional regulation at low flow.

AVERAGE DISCHARGE.--22 years, 41.0 ft^3/s, 24.10 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,390 ft^3/s Mar. 18, 1968, gage height, 3.46 ft, present datum, from rating curve extended above 460 ft^3/s; maximum gage height, 5.81 ft July 30, 1976; minimum discharge, 1.3 ft^3/s Aug. 23, 1970; minimum daily, 1.7 ft^3/s Aug. 10, 1970.

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

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
June 24	1515	667	4.23	Aug. 26	0400	*739	*4.38
Aug. 1	0245	612	4.11				

Minimum discharge, 4.6 ft^3/s Sept. 30; minimum daily, 5.1 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	39	13	15	15	15	17	56	18	41	25	106	22
2	65	12	9.6	24	14	20	34	16	22	22	28	13
3	13	12	40	21	9.8	17	29	126	17	18	19	12
4	12	10	27	19	12	16	27	70	13	13	11	12
5	10	37	17	19	14	46	25	38	36	14	13	9.7
6	9.2	18	51	17	11	32	23	53	23	17	12	11
7	8.7	15	27	15	14	26	22	57	20	12	10	9.2
8	8.2	14	23	16	11	29	40	39	13	12	41	7.7
9	8.6	12	18	14	12	27	31	29	16	13	17	18
10	9.0	12	16	14	15	24	26	29	13	15	10	22
11	8.7	52	18	13	14	22	23	27	11	12	11	16
12	8.7	51	16	14	80	96	22	24	12	11	10	11
13	8.7	28	19	14	121	62	21	29	12	8.8	9.7	9.7
14	8.4	20	15	13	54	40	25	25	10	7.9	10	7.2
15	7.9	16	19	13	41	33	25	22	8.4	17	7.9	6.3
16	8.4	16	16	13	34	29	24	23	21	16	8.3	8.1
17	8.7	13	16	12	31	29	21	26	114	14	7.1	11
18	9.1	13	16	12	31	29	19	43	66	13	6.0	6.3
19	9.1	15	22	14	24	28	18	30	33	12	8.6	6.1
20	8.4	14	19	13	25	27	17	25	24	8.4	6.9	7.5
21	7.5	12	19	12	23	26	17	22	22	6.9	7.0	5.9
22	15	9.8	62	13	23	22	34	19	17	54	6.8	5.1
23	63	12	28	12	23	23	26	21	14	23	8.7	7.7
24	17	9.6	22	12	23	25	18	17	69	14	6.3	16
25	13	9.4	20	12	23	24	19	19	28	13	24	12
26	24	13	16	12	21	23	19	13	25	38	135	9.0
27	14	13	16	11	17	23	16	11	22	25	26	8.7
28	12	10	16	11	20	22	18	30	26	11	19	6.4
29	50	26	16	11	---	19	15	26	39	12	12	5.5
30	21	15	16	11	---	23	16	20	31	12	81	7.2
31	15	---	15	8.6	---	21	---	18	---	22	39	---
TOTAL	520.3	522.8	665.6	430.6	755.8	900	726	965	818.4	512.0	717.3	309.3
MEAN	16.8	17.4	21.5	13.9	27.0	29.0	24.2	31.1	27.3	16.5	23.1	10.3
MAX	65	52	62	24	121	96	56	126	114	54	135	22
MIN	7.5	9.4	9.6	8.6	9.8	16	15	11	8.4	6.9	6.0	5.1
CFSM	.73	.75	.93	.60	1.17	1.26	1.05	1.35	1.18	.71	1.00	.45
IN.	.84	.84	1.07	.69	1.22	1.45	1.17	1.55	1.32	.82	1.16	.50

CAL YR 1984 TOTAL 17905.2 MEAN 48.9 MAX 570 MIN 6.6 CFSM 2.12 IN. 28.83
WTR YR 1985 TOTAL 7843.1 MEAN 21.5 MAX 135 MIN 5.1 CFSM .93 IN. 12.63

01114500 WOONASQUATUCKET RIVER AT CENTERDALE, R.I.

LOCATION.--Lat 41°51'32", long 71°29'16", Providence County, Hydrologic Unit 01090004, on right bank 75 ft downstream from bridge on U.S. Highway 44 at Centerdale and 6.5 mi upstream from mouth.

DRAINAGE AREA.--38.3 mi^2.

PERIOD OF RECORD.--Discharge: July 1941 to current year.
Water-quality records: Water years 1955-56.

GAGE.--Water-stage recorder. Elevation of gage is 95 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 30 to Jan. 2. Records poor. Some regulation by reservoirs upstream; regulation greater prior to 1956. Discharge figures prior to 1966 included leakage around station through bypass canal; leakage negligible subsequently.

AVERAGE DISCHARGE.--44 years, 73.2 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft^3/s Mar. 18, 1968, gage height, 7.75 ft, from floodmarks; minimum daily, 2.1 ft^3/s Aug. 26, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge during March 1936, 1,000 ft^3/s, by computation of flow over dam 0.7 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 190 ft^3/s Feb. 13, gage height, 3.01 ft; maximum gage height, 3.71 ft Sept. 27; minimum daily discharge, 12 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	20	44	16	34	21	53	60	31	53	46	63	42
2	58	43	15	34	22	52	63	29	47	40	41	38
3	46	44	20	36	23	49	61	75	44	37	34	35
4	35	44	21	37	22	43	60	103	41	34	29	30
5	27	49	17	37	23	73	60	89	44	31	24	28
6	23	45	25	39	25	78	58	87	49	29	21	27
7	21	43	23	38	26	67	55	100	46	29	19	27
8	24	42	20	39	26	69	60	90	44	27	29	26
9	40	41	21	41	27	68	56	80	42	25	35	27
10	40	43	27	35	25	62	51	73	39	26	31	38
11	40	53	30	25	25	57	49	68	35	26	29	35
12	41	67	31	25	38	102	48	68	34	22	26	32
13	41	55	35	27	164	125	43	72	33	19	24	28
14	50	50	37	26	130	102	42	69	32	18	22	27
15	84	48	36	26	109	89	42	64	31	22	21	25
16	95	47	37	26	95	79	44	59	32	22	20	23
17	88	47	35	26	85	75	42	59	61	20	20	21
18	75	46	33	27	79	69	38	60	56	18	20	20
19	66	44	35	27	74	66	37	62	53	17	19	22
20	64	40	34	26	75	66	37	61	45	15	19	24
21	64	31	34	23	71	63	37	57	39	14	19	23
22	55	20	49	22	71	57	42	56	36	38	18	24
23	46	19	43	21	77	56	50	53	35	25	18	20
24	38	18	41	21	78	50	47	50	38	19	18	12
25	36	18	41	21	71	45	46	48	42	16	23	18
26	38	17	38	22	65	42	45	46	37	22	53	49
27	30	15	36	22	62	39	41	44	36	31	48	155
28	30	15	36	22	55	39	39	44	41	26	38	146
29	40	19	37	20	---	38	38	50	49	21	32	96
30	34	16	36	19	---	38	36	48	53	18	34	57
31	33	---	35	20	---	38	---	46	---	18	50	---
TOTAL	1422	1123	974	864	1664	1949	1427	1941	1267	771	897	1175
MEAN	45.9	37.4	31.4	27.9	59.4	62.9	47.6	62.6	42.2	24.9	28.9	39.2
MAX	95	67	49	41	164	125	63	103	61	46	63	155
MIN	20	15	15	19	21	38	36	29	31	14	18	12

CAL YR 1984 TOTAL 36554.0 MEAN 99.9 MAX 682 MIN 8.5
WTR YR 1985 TOTAL 15474 MEAN 42.4 MAX 164 MIN 12

01116000 SOUTH BRANCH PAWTUXET RIVER AT WASHINGTON, R.I.

LOCATION.--Lat 41°41'24", long 71°33'59", Kent County, Hydrologic Unit 01090004, on right bank 150 ft downstream from highway bridge at Washington and 0.9 mi upstream from outlet of Tiogue Lake.

DRAINAGE AREA.--63.8 mi^2.

PERIOD OF RECORD.--Discharge: October 1940 to current year.
Water-quality records: Water years 1955-1956, 1963.

GAGE.--Water-stage recorder. Datum of gage is 217.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Flat River Reservoir 2 mi upstream (see table below), usable capacity, 250,000,000 ft^3, and smaller reservoirs. Prior to May 1972, diversion from Carr Pond for municipal supply of Coventry, Warwick, and West Warwick.

AVERAGE DISCHARGE.--45 years, 130 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980 ft^3/s June 6, 1982, gage height, 5.30 ft; minimum daily, 2.8 ft^3/s Aug. 27, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a discharge of 1,810 ft^3/s, by computation of flow over dam just upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 383 ft^3/s Sept. 1, gage height, 2.74 ft; minimum daily, 18 ft^3/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	37	43	133	85	59	161	122	80	74	81	62	352
2	38	44	131	84	58	163	120	80	75	69	49	250
3	39	43	133	82	57	153	118	86	124	53	39	86
4	38	43	130	77	57	83	116	90	104	54	37	88
5	38	43	88	83	57	85	103	88	75	55	36	94
6	39	43	132	139	57	89	87	87	79	53	35	71
7	38	43	136	80	58	113	87	87	90	53	35	67
8	38	43	130	74	58	121	112	87	89	53	35	74
9	39	44	127	83	58	81	119	87	81	53	35	102
10	39	43	127	76	58	83	119	85	75	53	36	106
11	39	51	127	76	57	181	117	84	69	53	36	104
12	38	78	126	76	59	212	105	126	68	49	35	124
13	39	86	119	74	74	196	90	200	65	48	35	127
14	39	126	83	72	72	190	88	184	64	45	35	69
15	38	127	82	71	70	198	102	88	62	45	35	68
16	39	120	88	70	70	199	108	87	62	45	36	68
17	39	95	116	70	71	199	108	85	80	45	35	66
18	39	92	116	70	72	199	108	84	112	46	35	87
19	38	87	118	70	71	196	99	84	121	47	34	96
20	39	79	101	68	71	197	89	117	106	45	33	73
21	39	78	80	66	91	195	87	122	91	42	23	71
22	39	77	81	66	98	152	86	138	74	43	20	70
23	41	77	85	66	101	87	84	118	57	43	18	76
24	41	76	115	66	102	85	84	87	56	43	18	101
25	41	86	120	64	102	96	84	84	53	43	18	103
26	42	130	114	62	101	121	84	83	52	43	52	187
27	42	131	113	62	104	123	82	81	51	43	59	173
28	42	130	111	62	155	126	82	79	51	43	54	93
29	42	134	111	61	---	110	82	79	53	42	52	81
30	43	133	109	60	---	88	82	77	83	36	98	79
31	43	---	105	60	---	92	---	76	---	35	263	---
TOTAL	1225	2425	3487	2275	2118	4374	2954	3020	2296	1501	1423	3206
MEAN	39.5	80.8	112	73.4	75.6	141	98.5	97.4	76.5	48.4	45.9	107
MAX	43	134	136	139	155	212	122	200	124	81	263	352
MIN	37	43	80	60	57	81	82	76	51	35	18	66
(†)	200.5	182	144	128.5	162.5	133.5	168	257.5	261	246.5	261	157

CAL YR 1984 TOTAL 58940 MEAN 161 MAX 1180 MIN 33
WTR YR 1985 TOTAL 30304 MEAN 83.0 MAX 352 MIN 18

† Monthend contents, in millions of cubic feet, in Flat River Reservoir; records provided by Quidnick Reservoir Co.

01116500 PAWTUXET RIVER AT CRANSTON, R.I.

LOCATION.--Lat 41°45'03", long 71°26'44", Providence County, Hydrologic Unit 01090004, on left bank at Cranston 0.7 mi upstream from Pocasset River.

DRAINAGE AREA.--200 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 971: 1940-42. WSP 1381: 1940-41(M). WDR-MA-NH-RI-VT-73-1: 1972 (adjusted monthly and yearly figures only).

GAGE.--Water-stage recorder. Datum of gage is 8.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by powerplants and by Scituate Reservoir 13 mi upstream, Flat River Reservoir, and other reservoirs, combined usable capacity, about 6,000,000,000 ft^3. Diversion from Scituate Reservoir for municipal supply of Providence, East Providence, North Providence, Cranston, Greenville, Johnston, East Smithfield, Smithfield, Warwick, West Warwick, Coventry, East Greenwich, and West Greenwich. See table below for figures of diversion and monthend contents in Scituate Reservoir and five smaller reservoirs, and see table with station 01116000 for monthend contents in Flat River Reservoir.

AVERAGE DISCHARGE.--45 years (water years 1941-85), 345 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,440 ft^3/s June 7, 1982, gage height, 14.5 ft, from floodmark; minimum daily, 22 ft^3/s Sept. 4, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft^3/s Aug. 30, gage height, 7.09 ft, minimum daily, 38 ft^3/s Aug. 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	165	159	250	234	172	322	262	111	189	151	435	748
2	266	149	246	240	174	330	247	127	136	136	108	654
3	187	140	269	240	171	326	229	323	156	111	79	264
4	176	143	287	208	167	254	221	301	178	96	70	156
5	178	231	212	191	165	315	213	218	164	92	65	173
6	170	188	310	265	171	270	161	224	188	89	61	195
7	164	166	306	245	167	280	141	232	152	98	58	184
8	159	126	272	209	164	315	191	211	149	87	81	141
9	153	145	263	192	167	269	219	211	141	85	65	189
10	148	163	262	190	165	220	213	215	130	83	69	232
11	139	211	263	193	166	293	211	221	118	80	83	230
12	135	293	260	193	210	528	206	227	111	78	39	201
13	136	221	256	190	461	474	146	347	113	76	38	263
14	135	258	210	192	285	359	137	333	112	75	47	164
15	135	273	177	191	240	344	145	168	107	75	55	128
16	131	278	174	197	216	329	189	150	143	97	54	132
17	109	238	223	184	211	324	185	91	239	79	53	121
18	106	224	243	183	207	324	182	143	220	80	52	98
19	119	221	262	184	205	315	180	137	224	79	77	151
20	135	188	267	180	208	311	139	166	193	77	60	135
21	136	178	195	178	242	304	128	197	168	75	60	106
22	143	181	294	176	259	287	138	210	150	124	47	104
23	236	184	230	182	269	182	132	206	120	81	43	104
24	177	183	256	183	271	159	124	138	110	74	46	176
25	166	183	281	173	268	158	120	107	107	73	57	177
26	196	231	265	170	260	206	116	101	105	99	455	232
27	185	249	257	167	259	214	115	98	106	97	174	323
28	169	251	260	166	294	214	112	114	125	77	117	199
29	222	275	260	166	---	210	111	168	142	76	107	138
30	221	256	257	165	---	148	110	115	157	71	543	134
31	183	---	252	164	---	139	---	103	---	62	932	---
TOTAL	5080	6186	7819	5991	6214	8723	5023	5713	4453	2733	4230	6252
MEAN	164	206	252	193	222	281	167	184	148	88.2	136	208
MAX	266	293	310	265	461	528	262	347	239	151	932	748
MIN	106	126	174	164	164	139	110	91	105	62	38	98
(†)	3694	3516	3483	3271	3290	3483	3482	3539	3497	3268	3040	2851
(‡)	99.5	97.7	89.9	92.7	95.1	98.9	103	109	110	132	130	114

CAL YR 1984 TOTAL 172324 MEAN 471 MAX 3200 MIN 106
WTR YR 1985 TOTAL 68417 MEAN 187 MAX 932 MIN 38

† Monthend contents, in millions of cubic feet, of Scituate Reservoir and five smaller reservoirs.
‡ Diversion, in cubic feet per second, from Scituate Reservoir for municipal supply of Providence, East Providence, North Providence, Cranston, Greenville, Johnston, East Smithfield, Smithfield, Warwick, West Warwick, Coventry, East Greenwich, and West Greenwich. Figures of diversion and monthend contents provided by Providence Water Supply Board.

01116500 - PAWTUXET RIVER AT CRANSTON, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1969 to September 1981.
WATER TEMPERATURES: November 1961 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)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT 09...	1235	157	250	7.00	13.5	--	--	8.6	82	--	--
NOV 06...	1055	163	350	6.70	12.0	--	--	7.7	72	--	3.0
DEC 04...	0945	286	138	6.90	5.5	1.5	--	11.6	--	17	--
JAN 08...	0900	208	218	6.70	2.0	--	--	12.5	--	--	--
FEB 05...	0930	160	310	6.60	1.0	--	--	13.2	--	--	--
MAR 12...	1145	573	230	6.00	7.0	--	--	11.8	99	--	3.0
APR 16...	1140	192	255	6.00	12.0	--	--	9.2	86	23	--
MAY 14...	1040	336	225	6.00	19.5	--	--	7.3	80	--	--
JUN 04...	1110	183	300	6.60	21.0	1.5	--	6.0	67	34	--
JUL 09...	1000	81	350	6.30	23.0	--	--	2.6	31	--	3.0
AUG 13...	1100	36	380	6.50	22.5	--	--	1.1	13	--	--
SEP 10...	1315	232	260	6.20	21.0	1.0	55	5.8	65	33	4.0

DATE	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 09...	490	K20	K6	--	--	--	--	--	--	--	--
NOV 06...	16000	78	22	--	--	--	--	--	--	--	--
DEC 04...	4900	K9	32	--	--	--	--	--	--	--	--
JAN 08...	17	K1	K1	--	--	--	--	--	--	--	--
FEB 05...	K10	K15	K5	--	--	--	--	--	--	--	--
MAR 12...	11000	480	270	--	--	--	--	--	--	--	--
APR 16...	1600	K160	K18	37	22	12	1.6	28	4.9	15	27
MAY 14...	68000	>2200	190	--	--	--	--	--	--	--	--
JUN 04...	24000	1100	46	--	--	--	--	--	--	--	--
JUL 09...	1700	K40	56	--	--	--	--	--	--	--	--
AUG 13...	29000	290	68	--	--	--	--	--	--	--	--
SEP 10...	2500	140	42	36	22	12	1.4	31	3.6	14	33

> ACTUAL VALUE IS KNOWN TO BE GREATER THAN THE VALUE SHOWN.
K RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTANCE RANGE (NON-IDEAL COLONY COUNT).

01116500 - PAWTUXET RIVER AT CRANSTON, RI--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
OCT											
09...	--	--	--	0.55	0.05	0.60	1.30	0.4	1.7	2.3	10
NOV											
06...	--	--	--	0.57	0.03	0.60	1.00	0.2	1.2	1.8	8.0
DEC											
04...	--	6	106	0.29	0.01	0.30	0.81	0.39	1.2	1.5	6.6
JAN											
08...	--	--	--	0.48	0.02	0.50	1.00	1.3	2.3	2.8	12
FEB											
05...	--	--	--	0.46	0.04	0.50	1.10	0.8	1.9	2.4	11
MAR											
12...	--	--	--	0.28	0.02	0.30	0.61	0.49	1.1	1.4	6.2
APR											
16...	43	<1	139	0.38	0.02	0.40	1.40	0.8	2.2	2.6	12
MAY											
14...	--	--	--	0.28	0.02	0.30	0.83	1.1	1.9	2.2	9.7
JUN											
04...	--	4	176	0.46	0.04	0.50	1.30	0.6	1.9	2.4	11
JUL											
09...	--	--	--	--	<0.01	--	0.06	1.3	1.4	--	--
AUG											
13...	--	--	--	1.05	0.15	1.20	1.30	0.6	1.9	3.1	14
SEP											
10...	<41	8	189	0.54	0.06	0.60	0.92	0.58	1.5	2.1	9.3

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHENOLS TOTAL (UG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT											
09...	0.50	--	0.40	--	--	--	--	--	--	--	--
NOV											
06...	0.48	--	0.39	--	--	--	--	--	--	--	--
DEC											
04...	0.19	--	0.11	--	--	--	--	--	--	--	--
JAN											
08...	0.30	--	0.18	--	--	--	--	--	--	--	--
FEB											
05...	0.31	--	0.23	--	--	--	--	--	--	--	--
MAR											
12...	0.41	--	0.24	--	--	--	--	--	--	--	--
APR											
16...	0.44	--	0.39	8	1	1	50	1	10	12	740
MAY											
14...	0.43	--	0.33	--	--	--	--	--	--	--	--
JUN											
04...	0.50	1.5	0.42	--	--	--	--	--	--	--	--
JUL											
09...	0.55	1.7	0.55	--	--	--	--	--	--	--	--
AUG											
13...	0.48	1.5	0.49	--	--	--	--	--	--	--	--
SEP											
10...	0.38	1.2	0.34	6	<1	1	70	1	<10	37	1300

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01116500 - PAWTUXET RIVER AT CRANSTON, RI--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
OCT											
09...	--	--	--	--	--	--	--	--	--	--	--
NOV											
06...	--	--	--	--	--	--	--	--	--	--	--
DEC											
04...	--	--	--	--	--	--	--	--	--	--	--
JAN											
08...	--	--	--	--	--	--	--	--	--	--	--
FEB											
05...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	--	--	--	--	--	--	--	--	--	--	--
APR											
16...	3	170	<0.1	5	<1	1	30	<0.1	--	--	<0.1
MAY											
14...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
JUL											
09...	--	--	--	--	--	--	--	--	--	--	--
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
10...	7	150	0.4	12	<1	<1	30	<0.1	240	<1.0	<0.1

DATE	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT										
09...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	--	--	--	--	--	--	--	--
DEC										
04...	--	--	--	--	--	--	--	--	--	--
JAN										
08...	--	--	--	--	--	--	--	--	--	--
FEB										
05...	--	--	--	--	--	--	--	--	--	--
MAR										
12...	--	--	--	--	--	--	--	--	--	--
APR										
16...	<0.01	--	<0.1	--	<0.01	--	<0.01	--	<0.01	--
MAY										
14...	--	--	--	--	--	--	--	--	--	--
JUN										
04...	--	--	--	--	--	--	--	--	--	--
JUL										
09...	--	--	--	--	--	--	--	--	--	--
AUG										
13...	--	--	--	--	--	--	--	--	--	--
SEP										
10...	<0.01	<0.1	<0.1	16	<0.01	13	<0.01	<0.1	<0.01	1.4

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01116500 - PAWTUXET RIVER AT CRANSTON, RI--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT 09...	--	--	--	--	--	--	--	--	--	--
NOV 06...	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--
FEB 05...	--	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--	--
APR 16...	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--
MAY 14...	--	--	--	--	--	--	--	--	--	--
JUN 04...	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--
SEP 10...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 09...	--	--	--	--	--	--	--	--	--	--
NOV 06...	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--
FEB 05...	--	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--	--
APR 16...	<0.01	--	<0.01	--	<0.01	--	<0.1	--	<1	--
MAY 14...	--	--	--	--	--	--	--	--	--	--
JUN 04...	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--
SEP 10...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.1	<1.00	<1	<10

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01116617 PAWTUXET RIVER AT PAWTUXET, R.I.

WATER-QUALITY RECORDS

LOCATION.--Lat 41°45'51", Long 71°23'45", Providence County, Hydrologic Unit 01090004, at Warwick Ave Road Bridge at Pawtuxet, and 4.0 mi downstream from Cranston Sewage Treatment Plant.

PERIOD OF RECORD.--Water years 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT											
09...	1040	196	280	6.60	13.5	--	--	7.0	67	--	--
NOV											
06...	0940	204	315	6.20	12.0	--	--	6.8	63	--	5.0
DEC											
04...	1145	340	205	7.00	4.5	2.0	--	10.8	--	26	--
JAN											
08...	1030	260	268	6.70	1.5	--	--	11.8	--	--	--
FEB											
05...	1015	215	340	6.60	1.0	--	--	12.4	--	--	--
MAR											
12...	1045	654	250	5.60	7.0	--	--	11.2	94	--	3.0
APR											
16...	0945	229	285	6.40	12.0	--	--	8.0	75	23	--
MAY											
14...	0940	372	275	6.20	19.0	--	--	5.8	63	--	--
JUN											
04...	0945	229	340	6.10	20.0	0.8	--	3.9	43	20	--
JUL											
09...	0815	101	410	6.50	23.0	--	--	1.2	14	--	5.0
AUG											
13...	0930	45	440	6.70	22.5	--	--	1.0	12	--	--
SEP											
10...	1045	290	295	6.10	20.5	1.5	40	4.4	49	33	4.0

DATE	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT											
09...	860	80	K18	--	--	--	--	--	--	--	--
NOV											
06...	10000	310	260	--	--	--	--	--	--	--	--
DEC											
04...	1800	71	54	--	--	--	--	--	--	--	--
JAN											
08...	200	4	13	--	--	--	--	--	--	--	--
FEB											
05...	K90	9	10	--	--	--	--	--	--	--	--
MAR											
12...	34000	120	110	--	--	--	--	--	--	--	--
APR											
16...	K850	140	K26	41	22	13	2.0	30	4.9	19	30
MAY											
14...	23000	>1900	110	--	--	--	--	--	--	--	--
JUN											
04...	38000	2900	200	--	--	--	--	--	--	--	--
JUL											
09...	K1100	K10	K16	--	--	--	--	--	--	--	--
AUG											
13...	620	230	120	--	--	--	--	--	--	--	--
SEP											
10...	3200	K500	160	39	23	13	1.7	32	4.3	16	31

> ACTUAL VALUE IS KNOWN TO BE GREATER THAN THE VALUE SHOWN.
K RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTANCE RANGE (NON-IDEAL COLONY COUNT).

01116617 PAWTUXET RIVER AT PAWTUXET, R.I.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
OCT 09...	--	--	--	0.72	0.08	0.80	1.30	0.3	1.6	2.4	11
NOV 06...	--	--	--	0.64	0.06	0.70	1.30	0.3	1.6	2.3	10
DEC 04...	--	8	144	0.38	0.02	0.40	1.20	0.8	2.0	2.4	11
JAN 08...	--	--	--	0.58	0.02	0.60	1.70	0.9	2.6	3.2	14
FEB 05...	--	--	--	0.37	0.03	0.40	2.10	1.0	3.1	3.5	15
MAR 12...	--	--	--	0.38	0.02	0.40	1.20	0.4	1.6	2.0	8.9
APR 16...	45	<1	147	0.47	0.03	0.50	2.20	2.0	4.2	4.7	21
MAY 14...	--	--	--	0.56	0.04	0.60	1.10	1.8	2.9	3.5	15
JUN 04...	--	1	65	0.52	0.08	0.60	2.10	1.2	3.3	3.9	17
JUL 09...	--	--	--	--	0.09	--	0.69	0.41	1.1	--	--
AUG 13...	--	--	--	1.19	0.11	1.30	3.30	1.3	4.6	5.9	26
SEP 10...	42	5	183	0.96	0.14	1.10	0.90	0.8	1.7	2.8	12

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHENOLS TOTAL (UG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)	ARSENIC TOTAL (UG/L AS AS)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 09...	0.83	--	0.70	--	--	--	--	--	--	--	--
NOV 06...	0.63	--	0.57	--	--	--	--	--	--	--	--
DEC 04...	0.40	--	0.32	--	--	--	--	--	--	--	--
JAN 08...	0.54	--	0.39	--	--	--	--	--	--	--	--
FEB 05...	0.71	--	0.61	--	--	--	--	--	--	--	--
MAR 12...	0.44	--	0.31	--	--	--	--	--	--	--	--
APR 16...	0.54	--	0.46	22	1	1	60	<1	10	14	810
MAY 14...	0.44	--	0.36	--	--	--	--	--	--	--	--
JUN 04...	0.70	2.1	0.55	--	--	--	--	--	--	--	--
JUL 09...	<0.01	--	0.02	--	--	--	--	--	--	--	--
AUG 13...	0.64	2.0	0.65	--	--	--	--	--	--	--	--
SEP 10...	0.43	1.3	0.43	13	<1	2	60	2	30	47	1100

<ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01116617 PAWTUXET RIVER AT PAWTUXET, R.I.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
OCT 09...	--	--	--	--	--	--	--	--	--	--	--
NOV 06...	--	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--	--
FEB 05...	--	--	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--	--	--
APR 16...	4	200	<0.1	16	<1	1	30	<0.1	--	--	<0.1
MAY 14...	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	10	150	0.3	27	<1	1	20	<0.1	190	<1.0	<0.1

DATE	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG
OCT 09...	--	--	--	--	--	--	--	--	--	--
NOV 06...	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--
FEB 05...	--	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--	--
APR 16...	<0.01	--	<0.1	--	<0.01	--	<0.01	--	<0.01	--
MAY 14...	--	--	--	--	--	--	--	--	--	--
JUN 04...	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--
SEP 10...	<0.01	<0.1	<0.1	<1.0	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01116617 PAWTUXET RIVER AT PAWTUXET, R.I.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT 09...	--	--	--	--	--	--	--	--	--	--
NOV 06...	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--
FEB 05...	--	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--	--
APR 16...	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--
MAY 14...	--	--	--	--	--	--	--	--	--	--
JUN 04...	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--
SEP 10...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 09...	--	--	--	--	--	--	--	--	--	--
NOV 06...	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--
FEB 05...	--	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--	--
APR 16...	<0.01	--	<0.01	--	<0.01	--	<0.1	--	<1	--
MAY 14...	--	--	--	--	--	--	--	--	--	--
JUN 04...	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--
SEP 10...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.1	<1.00	<1	<10

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01117000 HUNT RIVER NEAR EAST GREENWICH, R.I.

LOCATION.--Lat 41°38'28", long 71°26'45", Washington County, Hydrologic Unit 01090004, on right bank 45 ft upstream from Old Forge Dam in North Kingstown, 1.5 mi south of East Greenwich, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--23.0 mi^2.

PERIOD OF RECORD.--Discharge: August 1940 to current year. Prior to October 1977, published as "Potowomut River."
Water-quality records: Water years 1977-81.

REVISED RECORDS.--WSP 1621: 1957-58.

GAGE.--Water-stage recorder. Datum of gage is 5.42 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 4-12. Records fair. Flow affected by diversions for supply of East Greenwich, North Kingstown, Warwick, and Quonset Point (formerly U.S. Naval establishments). One observation of water temperature and specific conductance was made during the year.

AVERAGE DISCHARGE.--45 years 45.9 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft^3/s June 6, 1982, gage height, 3.73 ft, from rating curve extended above 440 ft^3/s; maximum gage height, 6.78 ft Aug. 31, 1954 (backwater from hurricane tidal wave); no flow Oct. 25, 1947, Aug. 28-30, 1960, parts of Oct. 1, 2, 1971, July 25, 1975, June 24, 1976, Aug. 26, 1977, and July 24, 1983, due to closing of gate at Old Forge Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1915, about 8.5 ft Sept. 21, 1938 (backwater from hurricane tidal wave).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 230 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Aug. 30	2300	*360	*2.50	No other peak greater than base discharge.			

Minimum discharge, 3.0 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	6.0	21	14	30	19	26	52	17	58	30	44	158
2	46	17	13	38	23	29	51	23	50	22	28	86
3	30	16	14	41	23	29	42	87	32	18	17	59
4	18	14	25	36	21	26	36	123	24	17	14	43
5	12	26	20	36	20	57	33	76	31	15	12	36
6	8.4	32	55	32	20	58	32	62	71	15	10	52
7	7.5	23	59	31	19	42	30	62	48	17	10	102
8	7.0	18	39	32	19	46	36	48	34	14	24	65
9	7.2	16	29	27	18	52	35	40	30	13	24	54
10	5.8	14	26	24	18	43	30	35	26	12	17	58
11	5.3	20	27	24	18	37	28	32	21	11	15	56
12	5.2	57	25	24	25	100	27	31	20	9.7	13	45
13	5.4	41	24	24	104	143	26	51	24	9.5	11	39
14	5.6	29	24	23	70	96	26	47	20	9.6	10	34
15	6.0	23	24	25	49	69	26	36	18	9.5	10	30
16	5.6	21	24	21	41	58	26	31	35	30	8.6	27
17	5.8	19	23	20	35	54	25	36	53	30	7.8	25
18	6.2	18	22	22	29	51	23	40	45	19	7.5	23
19	6.5	16	23	23	29	46	22	36	41	14	7.5	22
20	7.4	11	33	22	31	42	21	30	28	12	7.6	21
21	8.5	12	29	20	29	41	22	33	23	11	7.6	20
22	9.3	12	80	20	29	37	25	50	19	15	7.8	19
23	25	11	69	21	36	37	28	39	18	14	7.6	19
24	25	10	49	22	38	37	23	29	17	11	7.5	23
25	19	11	45	22	37	35	22	25	16	10	9.6	32
26	26	9.8	39	20	32	33	21	23	16	12	73	27
27	27	8.8	33	19	30	32	20	21	16	38	56	24
28	20	9.8	31	19	27	31	20	25	25	24	30	24
29	45	16	33	18	---	30	19	67	36	16	19	21
30	45	17	33	18	---	31	18	47	44	12	116	20
31	29	---	30	18	---	31	---	33	---	11	292	---
TOTAL	485.7	569.4	1014	772	889	1479	845	1335	939	501.3	924.1	1264
MEAN	15.7	19.0	32.7	24.9	31.8	47.7	28.2	43.1	31.3	16.2	29.8	42.1
MAX	46	57	80	41	104	143	52	123	71	38	292	158
MIN	5.2	8.8	13	18	18	26	18	17	16	9.5	7.5	19

CAL YR 1984 TOTAL 24730.6 MEAN 67.6 MAX 582 MIN 3.3
WTR YR 1985 TOTAL 11017.5 MEAN 30.2 MAX 292 MIN 5.2

01117350 CHIPUXET RIVER AT WEST KINGSTON, R.I.

LOCATION.--Lat 41°28'56", long 71°33'06", Washington County, Hydrologic Unit 01090005, on right bank at West Kingston, at downstream side of bridge on State Highway 138, 1.5 mi west of Kingston, and 3.1 mi upstream from Worden Pond.

DRAINAGE AREA.--9.99 mi^2.

PERIOD OF RECORD.--Discharge: February 1958 to July 1960 in Rhode Island Water Resources Board Geologic Bulletin 13. September 1973 to current year.
Water-quality records: Water years 1974-83.

GAGE.--Water-stage recorder. Datum of gage is 89.80 ft above National Geodetic Vertical Datum of 1929 (Rhode Island State Board of Public Roads benchmark).

REMARKS.--No estimated daily discharges. Records poor. Diversion upstream for supply of University of Rhode Island.

AVERAGE DISCHARGE.--13 years (water years 1959, 1974-85), 21.6 ft^3/s.

EXTREMES FOR PERIOD OF RECORD (SINCE 1973).--Maximum discharge, about 250 ft^3/s June 6, 1982; minimum, 2.1 ft^3/s Aug. 27-31, Sept. 2, 1981.
Instantaneous maximum and minimum discharges not available prior to Sept. 14, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 190 ft^3/s Aug. 31, gage height, 7.36 ft; minimum, 4.7 ft^3/s Oct. 19, 20, 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	8.6	9.3	7.4	12	7.3	11	15	9.1	15	13	10	158
2	11	8.3	7.4	12	7.3	10	16	9.3	15	12	9.6	104
3	11	7.4	7.2	13	7.6	10	16	13	14	11	9.3	71
4	12	6.9	7.4	13	7.7	9.9	16	20	12	10	8.6	54
5	12	7.4	7.5	13	7.8	11	15	26	13	9.6	8.5	44
6	11	7.7	12	13	8.5	14	15	23	13	8.9	8.2	39
7	9.6	7.8	16	11	8.4	15	15	22	13	8.9	7.5	36
8	9.1	7.7	17	11	8.4	14	15	20	13	9.0	9.2	34
9	8.4	7.3	16	11	7.8	15	15	17	13	8.6	9.9	32
10	7.9	7.1	14	10	7.4	15	15	15	13	8.2	10	32
11	7.6	7.4	14	9.7	7.1	14	14	14	12	7.7	10	32
12	7.5	9.9	13	9.4	7.2	20	15	14	11	7.2	9.7	30
13	7.2	10	12	9.0	14	32	14	15	11	7.0	8.9	27
14	7.0	11	11	8.7	21	41	14	16	10	6.7	8.0	24
15	6.8	10	11	8.7	22	37	12	15	10	6.6	7.4	22
16	6.1	9.4	10	8.7	19	30	12	14	11	7.3	7.1	20
17	5.9	8.9	9.6	8.6	15	26	12	14	12	8.1	6.8	19
18	5.5	8.3	9.3	8.6	13	23	12	13	13	8.5	6.9	17
19	5.1	7.9	9.3	8.6	12	21	11	13	13	7.6	6.8	16
20	5.1	7.7	9.6	8.6	11	19	11	12	12	6.8	6.8	16
21	4.9	7.2	9.4	8.6	11	18	11	14	11	6.6	6.7	15
22	4.9	7.1	13	7.9	11	17	11	14	9.9	7.4	6.6	14
23	6.2	6.1	16	7.5	11	16	11	15	9.5	7.6	6.3	14
24	6.3	6.5	18	7.5	11	16	10	15	9.4	7.2	5.5	14
25	6.5	6.5	18	7.5	11	15	10	14	9.3	6.6	6.6	14
26	7.3	6.5	16	7.5	11	14	9.8	13	9.2	7.7	15	14
27	7.5	6.6	15	7.5	11	13	9.9	13	9.1	9.3	22	15
28	7.4	6.6	14	7.5	12	13	10	14	10	9.6	25	15
29	8.7	7.1	13	7.5	---	14	9.8	14	12	9.4	20	15
30	9.3	7.4	13	7.3	---	14	9.7	15	13	9.0	30	14
31	10	---	12	7.3	---	14	---	15	---	8.6	156	---
TOTAL	243.4	235.0	378.1	291.2	308.5	551.9	382.2	470.4	351.4	261.7	468.9	971
MEAN	7.85	7.83	12.2	9.39	11.0	17.8	12.7	15.2	11.7	8.44	15.1	32.4
MAX	12	11	18	13	22	41	16	26	15	13	156	158
MIN	4.9	6.1	7.2	7.3	7.1	9.9	9.7	9.1	9.1	6.6	5.5	14

CAL YR 1984 TOTAL 10252.4 MEAN 28.0 MAX 180 MIN 4.9
WTR YR 1985 TOTAL 4913.7 MEAN 13.5 MAX 158 MIN 4.9

01117420 USQUEPAUG RIVER NEAR USQUEPAUG, R.I.

LOCATION.--Lat 41°28'36", long 71°36'19", Washington County, Hydrologic Unit 01090005, on left bank at upstream side of Heaton Orchard Bridge on State Highway 2 in South Kingstown, 1.2 mi upstream from Chickasheen Brook, 1.8 mi south of Usquepaug, and 2.6 mi west of West Kingston.

DRAINAGE AREA.--36.1 mi^2.

PERIOD OF RECORD.--Discharge: February 1958 to July 1960 in Rhode Island Water Resources Board Geologic Bulletin 13. December 1974 to current year.
Water-quality records: Water years 1975-83.

GAGE.--Water-stage recorder. Datum of gage is 81.28 ft above National Geodetic Vertical Datum of 1929 (State of Rhode Island benchmark).

REMARKS.--Estimated daily discharges: Jan. 16. Records good. Flow affected at times by irrigation upstream. One observation of water temperature and specific conductance was made during the year.

AVERAGE DISCHARGE.--11 years, (water years 1959, 1976-85), 79.4 ft^3/s, 29.87 in/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1974).--Maximum discharge, 1,060 ft^3/s June 6, 1982, gage height, 9.23 ft; minimum, 3.9 ft^3/s Sept. 10, 1977, Sept. 30, 1980.
Instantaneous maximum and minimum discharges not available prior to Dec. 5, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 576 ft^3/s Aug. 31, gage height, 7.46 ft; minimum, 16 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	20	36	33	40	27	41	61	31	58	50	37	353
2	38	32	30	44	28	42	68	33	66	42	42	202
3	44	29	29	49	31	43	62	63	56	36	37	134
4	36	29	38	47	31	41	58	106	48	37	30	103
5	29	33	38	45	29	56	52	105	46	36	28	86
6	26	42	53	43	28	69	50	77	67	31	25	81
7	25	37	71	40	28	57	50	70	64	30	22	96
8	23	32	57	41	28	55	51	61	54	30	32	96
9	22	31	46	39	28	62	54	52	49	28	41	87
10	22	28	41	37	27	56	51	48	47	25	34	84
11	22	29	43	37	27	51	47	45	43	25	28	83
12	21	63	43	36	31	79	45	46	42	23	25	76
13	21	59	41	35	88	141	46	56	42	22	22	65
14	22	46	40	35	89	150	46	58	42	22	20	56
15	22	39	36	34	64	119	44	49	40	22	21	51
16	21	36	36	34	50	91	45	45	47	29	22	49
17	21	36	39	34	45	81	44	47	61	40	22	44
18	20	33	36	33	43	76	42	50	60	35	21	42
19	20	32	35	33	42	71	42	48	57	27	21	41
20	21	30	41	33	43	67	41	45	50	23	22	39
21	21	28	42	31	43	66	41	44	44	21	22	36
22	21	29	63	32	42	63	41	71	38	24	21	34
23	29	29	76	31	46	61	41	62	35	27	20	31
24	33	27	60	31	49	60	41	51	38	28	19	34
25	32	27	52	31	50	58	40	48	38	27	22	45
26	31	27	49	31	48	56	40	45	35	29	55	43
27	34	27	46	30	45	53	39	44	34	36	75	40
28	32	27	43	28	43	53	37	42	42	38	57	50
29	46	29	43	28	---	52	36	66	53	36	38	46
30	54	32	43	27	---	52	34	65	55	31	112	44
31	43	---	41	27	---	51	---	54	---	27	516	---
TOTAL	872	1014	1384	1096	1173	2073	1389	1727	1451	937	1509	2271
MEAN	28.1	33.8	44.6	35.4	41.9	66.9	46.3	55.7	48.4	30.2	48.7	75.7
MAX	54	63	76	49	89	150	68	106	67	50	516	353
MIN	20	27	29	27	27	41	34	31	34	21	19	31
CFSM	.78	.94	1.24	.98	1.16	1.85	1.28	1.54	1.34	.84	1.35	2.10
IN.	.90	1.04	1.43	1.13	1.21	2.14	1.43	1.78	1.50	.97	1.55	2.34

CAL YR 1984 TOTAL 34033 MEAN 93.0 MAX 645 MIN 17 CFSM 2.58 IN. 35.07
WTR YR 1985 TOTAL 16896 MEAN 46.3 MAX 516 MIN 19 CFSM 1.28 IN. 17.41

01117468 BEAVER RIVER NEAR USQUEPAUG, R.I.

LOCATION.--Lat 41°29'33", long 71°37'43", Washington County, Hydrologic Unit 01090005, on right bank 10 ft downstream from Beaver River Bridge on State Highway 138 in Richmond, 1.2 mi southwest of Usquepaug, 3.3 mi north of Kenyon, and 3.6 mi upstream from mouth.

DRAINAGE AREA.--8.87 mi^2.

PERIOD OF RECORD.--Discharge: December 1974 to current year.
Water-quality records: Water years 1979-83.

REVISED RECORDS.--WDR MA-RI-79-1: 1978. WDR MA-RI-81-1: 1978-80 (P).

GAGE.--Water-stage recorder. Datum of gage is 107.68 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 22 to Dec. 7, Jan. 22-28, 30, 31. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--10 years (water years 1976-85), 22.5 ft^3/s, 34.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.---Maximum discharge, 370 ft^3/s June 6, 1982, gage height, 3.83 ft; minimum, 1.7 ft^3/s Sept. 10, 12, 13, 24, 25, 28, 29, 30, Oct. 1, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Aug. 30	2200	*193	*3.07	No other peak greater than base discharge.			

Minimum discharge, 2.6 ft^3/s Sept. 3, 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	4.9	7.9	7.6	13	8.4	11	18	11	20	14	11	72
2	11	7.4	7.2	14	8.3	11	18	12	20	12	8.9	46
3	11	6.9	6.9	16	8.1	12	17	27	16	11	7.1	32
4	7.7	6.6	9.0	15	8.5	11	17	35	14	12	6.3	29
5	6.7	7.9	10	14	8.9	19	17	24	15	11	5.7	28
6	6.2	9.6	15	14	8.4	20	17	21	23	11	5.5	32
7	6.0	8.5	17	14	8.4	15	16	22	19	9.8	5.4	46
8	5.8	7.5	14	14	7.7	16	16	18	16	9.1	11	29
9	5.8	7.0	12	13	8.2	18	17	17	15	8.3	9.7	30
10	5.8	6.8	11	12	8.1	16	16	16	14	8.0	7.4	30
11	5.8	7.7	11	12	8.1	14	15	15	12	7.6	6.5	29
12	5.6	16	11	12	9.5	32	14	15	11	7.2	5.9	26
13	5.2	14	11	11	28	46	14	21	11	6.9	5.5	24
14	5.0	10	11	11	22	33	13	20	11	6.8	5.3	23
15	5.0	8.9	10	11	16	28	13	17	11	6.8	5.0	22
16	5.2	8.4	10	11	13	24	13	16	15	11	4.7	21
17	5.2	8.4	10	10	12	24	13	17	20	12	4.5	20
18	5.2	8.2	10	11	11	23	13	18	18	9.1	4.4	19
19	5.2	7.8	9.9	11	11	23	12	16	17	7.8	4.4	18
20	5.2	7.6	12	11	11	23	12	15	14	7.1	4.4	18
21	5.2	7.3	11	11	11	21	12	16	12	6.4	4.3	17
22	5.2	7.1	22	10	11	21	12	25	11	8.1	4.1	16
23	6.4	6.9	21	10	11	21	12	20	10	7.7	4.0	15
24	7.4	6.9	16	9.5	13	20	12	17	11	6.9	3.8	16
25	7.3	6.7	15	9.5	14	20	12	16	11	6.2	5.2	20
26	6.9	6.7	15	9.0	13	20	12	15	10	7.3	27	18
27	7.3	6.5	14	9.0	13	19	12	15	10	9.6	20	16
28	7.1	6.5	14	8.8	12	19	11	14	15	9.0	10	15
29	12	7.0	14	8.8	---	18	11	22	17	7.1	7.9	15
30	11	8.0	14	8.6	---	18	11	19	17	6.3	73	15
31	9.1	---	14	8.5	---	18	---	16	---	6.0	139	---
TOTAL	208.4	242.7	385.6	352.7	322.6	634	418	568	436	269.1	426.9	757
MEAN	6.72	8.09	12.4	11.4	11.5	20.5	13.9	18.3	14.5	8.68	13.8	25.2
MAX	12	16	22	16	28	46	18	35	23	14	139	72
MIN	4.9	6.5	6.9	8.5	7.7	11	11	11	10	6.0	3.8	15
CFSM	.76	.91	1.40	1.29	1.30	2.31	1.57	2.06	1.63	.98	1.56	2.84
IN.	.87	1.02	1.62	1.48	1.35	2.66	1.75	2.38	1.83	1.13	1.79	3.17

CAL YR 1984 TOTAL 9034.9 MEAN 24.7 MAX 134 MIN 4.6 CFSM 2.78 IN. 37.89
WTR YR 1985 TOTAL 5021.0 MEAN 13.8 MAX 139 MIN 3.8 CFSM 1.56 IN. 21.06

01117500 PAWCATUCK RIVER AT WOOD RIVER JUNCTION, R.I.

LOCATION.--Lat 41°26'42", long 71°40'53", Washington County, Hydrologic Unit 01090005, on right bank 10 ft downstream from bridge on Alton-Carolina road, 0.8 mi northeast of Wood River Junction, 1.5 mi southwest of Carolina, and 2.9 mi upstream from Wood River. Prior to June 19, 1984, at site 10 ft upstream.

DRAINAGE AREA.--100 mi^2.

PERIOD OF RECORD.--October 1940 to current year. October and November 1940, monthly discharge only, published in WSP 1301. Prior to October 1943, published as Charles River at Wood River Junction.

REVISED RECORDS.--WSP 1051: Drainage area. WSP 1201: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 43.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges Aug. 30 to Sept. 4. Records fair except those for estimated daily discharges, which are poor. Doubtful gage-height record Oct. 1 to Sept. 30. Occasional regulation by fish hatchery on White Brook. Prior to 1972, occasional regulation at low flow by powerplant and mills upstream; regulation greater prior to 1969. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--45 years, 195 ft^3/s, 26.48 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft^3/s June 7, 1982, gage height, 8.75 ft; minimum, 7.4 ft^3/s Oct. 10, 1947; minimum daily, 15 ft^3/s Oct. 11, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 850 ft^3/s Aug. 31; minimum, 32 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	53	86	84	122	79	114	153	89	143	141	81	780
2	85	76	78	128	83	115	161	94	145	132	88	620
3	94	69	79	134	84	119	161	153	143	118	80	500
4	89	64	92	134	79	110	154	192	133	107	69	400
5	78	74	95	130	76	136	148	202	129	104	60	336
6	69	87	141	127	79	150	141	197	150	98	54	318
7	62	83	159	123	79	148	138	182	152	94	50	381
8	58	76	154	121	72	147	140	167	146	87	66	362
9	56	71	139	109	76	150	140	154	136	82	88	328
10	55	67	129	104	73	147	138	143	128	79	82	334
11	53	73	126	100	74	138	133	135	119	75	71	314
12	51	127	123	99	86	192	129	130	112	70	61	284
13	49	134	117	98	170	251	127	148	116	65	55	261
14	47	124	112	97	178	264	124	154	113	62	50	237
15	47	108	106	96	174	256	122	151	108	62	48	218
16	46	101	103	87	149	231	124	141	121	73	45	203
17	45	93	101	90	132	205	122	142	143	90	43	192
18	45	88	101	90	125	191	118	144	147	89	41	181
19	44	83	102	91	120	182	114	140	146	76	40	172
20	42	80	114	89	118	176	112	133	137	67	38	167
21	42	77	114	83	116	171	110	134	125	61	36	161
22	42	74	147	84	113	166	107	168	112	65	35	155
23	61	74	163	85	119	161	107	169	104	67	34	152
24	69	73	163	85	128	157	107	157	103	63	33	157
25	67	72	155	85	133	155	104	142	110	59	39	165
26	68	72	144	84	131	151	103	130	104	62	144	169
27	68	73	135	81	126	147	100	122	101	83	189	165
28	64	72	128	79	120	144	97	119	119	80	173	156
29	87	82	128	80	---	143	95	145	137	75	147	152
30	100	85	127	76	---	140	93	150	146	67	230	150
31	99	---	124	74	---	139	---	146	---	61	720	---
TOTAL	1935	2518	3783	3065	3092	5096	3722	4573	3828	2514	2990	8170
MEAN	62.4	83.9	122	98.9	110	164	124	148	128	81.1	96.5	272
MAX	100	134	163	134	178	264	161	202	152	141	720	780
MIN	42	64	78	74	72	110	93	89	101	59	33	150
CFSM	.62	.84	1.22	.99	1.10	1.64	1.24	1.48	1.28	.81	.96	2.72
IN.	.72	.94	1.41	1.14	1.15	1.90	1.38	1.70	1.42	.94	1.11	3.04

CAL YR 1984 TOTAL 96787 MEAN 264 MAX 1390 MIN 42 CFSM 2.64 IN. 36.00
WTR YR 1985 TOTAL 45286 MEAN 124 MAX 780 MIN 33 CFSM 1.24 IN. 16.85

01117800 WOOD RIVER NEAR ARCADIA, R.I.

LOCATION.--Lat 41°34'26", long 71°43'16", Washington County, Hydrologic Unit 01090005, on left bank at upstream side of bridge on Ten Rod Road, 1.8 mi northwest of Arcadia, and 4.5 mi north of Hope Valley.

DRAINAGE AREA.--35.2 mi^2.

PERIOD OF RECORD.--Discharge: January 1964 to September 1981, October 1982 to current year. Water-quality records: Water years 1967-74.

GAGE.--Water-stage recorder. Datum of gage is 137.97 ft above National Geodetic Vertical Datum of 1929 (Rhode Island State Board of Public Roads benchmark).

REMARKS.--Estimated daily discharges: Oct. 1, 2, 4-28, Oct. 30 to Nov. 29, Aug. 5-7. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--20 years (water years 1965-81, 1983-85), 77.7 ft^3/s, 29.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 896 ft^3/s Mar. 18, 1968, gage height, 8.64 ft; minimum, 4.9 ft^3/s Sept. 24-26, Sept. 29 to Oct. 1, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 6, 1982, reached a discharge of 1,010 ft^3/s, gage height, 8.97 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 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	2345	*196	*4.59				

Minimum discharge, 10 ft^3/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	16	42	43	50	33	51	70	37	73	46	47	73
2	60	36	40	53	35	51	74	41	66	40	43	53
3	52	31	41	58	36	51	70	94	55	38	38	42
4	42	28	54	55	34	47	66	132	48	38	31	35
5	36	33	52	53	33	71	62	109	52	34	26	30
6	32	40	74	50	35	79	59	95	75	34	24	34
7	30	36	84	48	35	72	56	89	63	35	22	59
8	28	32	73	47	32	74	59	79	54	31	28	52
9	26	29	64	43	33	78	61	69	52	28	27	47
10	25	28	58	42	32	72	58	63	46	27	23	50
11	24	45	57	40	39	66	56	58	42	25	20	45
12	23	70	57	40	37	126	54	54	39	22	18	37
13	22	90	56	40	107	177	51	63	40	22	17	32
14	21	80	52	40	109	151	49	59	38	21	16	28
15	25	70	49	41	100	117	48	52	35	21	15	26
16	28	60	47	36	83	96	50	48	46	30	14	24
17	31	52	45	37	71	85	48	50	67	29	13	22
18	30	47	44	37	63	81	45	52	71	24	12	20
19	31	43	45	38	59	76	44	49	70	21	12	17
20	30	40	53	37	57	73	44	45	60	19	12	16
21	35	37	53	35	57	70	43	44	52	18	12	15
22	40	35	82	37	56	67	43	46	46	23	12	14
23	43	33	85	37	60	65	44	42	43	22	12	13
24	43	32	78	37	64	64	42	38	41	19	10	17
25	41	31	74	36	66	62	41	34	38	17	15	28
26	44	30	66	35	63	60	41	32	36	21	69	36
27	42	29	59	34	60	58	41	31	34	37	58	37
28	41	35	56	34	55	58	40	36	43	30	41	46
29	58	47	55	33	---	57	39	64	52	24	31	31
30	60	47	55	32	---	56	38	58	54	21	69	27
31	50	---	52	31	---	55	---	52	---	20	128	---
TOTAL	1109	1288	1803	1266	1544	2366	1536	1815	1531	837	915	1006
MEAN	35.8	42.9	58.2	40.8	55.1	76.3	51.2	58.5	51.0	27.0	29.5	33.5
MAX	60	90	85	58	109	177	74	132	75	46	128	73
MIN	16	28	40	31	32	47	38	31	34	17	10	13
CFSM	1.02	1.22	1.65	1.16	1.57	2.17	1.45	1.66	1.45	.77	.84	.95
IN.	1.17	1.36	1.91	1.34	1.63	2.50	1.62	1.92	1.62	.88	.97	1.06

CAL YR 1984 TOTAL 35276 MEAN 96.4 MAX 542 MIN 13 CFSM 2.74 IN. 37.28
WTR YR 1985 TOTAL 17016 MEAN 46.6 MAX 177 MIN 10 CFSM 1.32 IN. 17.98

01118000 WOOD RIVER AT HOPE VALLEY, R.I.

LOCATION.--Lat 41°29'53", long 71°43'01", Washington County, Hydrologic Unit 01090005, on right bank 0.2 mi downstream from highway bridge at Hope Valley and 6.6 mi upstream from mouth.
DRAINAGE AREA.--72.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: August to December 1909 (gage heights only), March 1941 to current year. Records of daily discharge for August to December 1909, published in WSP 261, have been found to be unreliable and should not be used.
REVISED RECORDS.--WSP 1201: 1948(P). See also PERIOD OF RECORD.
GAGE.--Water-stage recorder and concrete control. Datum of gage is 61.11 ft above National Geodetic Vertical Datum of 1929. August to December 1909, nonrecording gage at site 1,000 ft upstream at different datum.
REMARKS.--No estimated daily discharges. Records good. Some seasonal regulation by Locustville Pond on Brushy Brook since 1968. Some regulation at low flow by mills and ponds upstream until 1952; regulation greater prior to 1948.
AVERAGE DISCHARGE.--44 years, 156 ft^3/s, 29.26 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,390 ft^3/s June 6, 1982, gage height, 10.26 ft; minimum, 4.4 ft^3/s Oct. 18, 1941; minimum daily, 10 ft^3/s Oct. 13, 1941.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1711, at least 12.4 ft in February 1886. Flood in November 1927 reached a stage of 11.7 ft, and flood in March 1936 reached a discharge of 1,540 ft^3/s.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 580 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Aug. 31	0230	*735	*5.39				

Minimum discharge, 26 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	37	70	76	92	58	92	133	60	131	92	73	318
2	63	62	70	98	62	94	154	66	150	76	87	205
3	96	57	68	110	65	94	139	136	115	67	67	161
4	74	53	91	103	61	88	133	280	95	66	51	134
5	58	61	90	101	59	130	121	221	93	60	46	125
6	52	79	128	95	62	160	118	188	152	57	42	168
7	48	73	167	90	61	133	113	180	138	58	39	319
8	46	60	133	91	57	135	116	164	110	55	52	225
9	44	57	114	78	56	151	119	148	100	49	59	183
10	42	56	102	75	56	137	112	135	92	47	50	195
11	41	59	100	72	57	123	112	123	80	45	43	180
12	40	133	97	70	73	227	112	113	73	40	39	148
13	39	181	94	69	229	372	109	138	73	38	35	127
14	37	165	90	69	217	299	103	142	70	37	33	111
15	37	133	85	75	184	246	100	116	65	37	32	101
16	52	119	82	71	152	208	101	103	83	61	32	93
17	58	106	84	70	129	186	97	106	139	65	30	86
18	59	90	78	70	116	175	91	112	139	51	30	81
19	59	83	78	72	109	163	90	106	139	42	29	76
20	58	76	93	70	108	158	88	96	114	38	29	71
21	60	70	94	60	102	148	85	103	94	36	29	68
22	68	68	152	60	101	138	83	128	82	43	28	65
23	83	64	174	61	107	134	85	108	74	44	28	62
24	90	62	144	62	115	130	83	92	72	39	27	69
25	74	61	135	63	119	124	78	82	69	36	33	95
26	67	61	122	62	112	117	71	75	64	43	144	99
27	72	59	109	61	106	114	67	70	63	67	165	90
28	67	60	101	58	100	113	65	71	80	66	96	95
29	93	70	101	58	---	111	64	120	101	50	65	73
30	105	82	101	55	---	109	62	120	111	42	291	65
31	83	---	94	54	---	106	---	99	---	39	620	---
TOTAL	1902	2430	3247	2295	2833	4715	3004	3801	2961	1586	2424	3888
MEAN	61.4	81.0	105	74.0	101	152	100	123	98.7	51.2	78.2	130
MAX	105	181	174	110	229	372	154	280	152	92	620	319
MIN	37	53	68	54	56	88	62	60	63	36	27	62
CFSM	.85	1.12	1.45	1.02	1.40	2.10	1.38	1.70	1.36	.71	1.08	1.80
IN.	.98	1.25	1.67	1.18	1.46	2.42	1.54	1.95	1.52	.81	1.25	2.00

CAL YR 1984 TOTAL 72653 MEAN 199 MAX 1180 MIN 31 CFSM 2.75 IN. 37.33
WTR YR 1985 TOTAL 35086 MEAN 96.1 MAX 620 MIN 27 CFSM 1.33 IN. 18.03

01118000 WOOD RIVER AT HOPE VALLEY, R.I.--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1977 to current year.
WATER TEMPERATURES: October 1977 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1977.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 244 microsiemens Oct. 13, 1983; minimum recorded, 21 microsiemens Jan. 23, 1979.
WATER TEMPERATURES: Maximum recorded, 28.0°C July 9, 10, 1981; minimum recorded, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 156 microsiemens Aug. 26; minimum recorded, 43 microsiemens Mar. 13.
WATER TEMPERATURES: Maximum recorded, 25.5°C July 21, Aug. 15; minimum recorded, 0.0°C Jan. 29, 30.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	86	79	81	64	63	63	60	59	60	67	64	65
2	132	78	106	65	64	65	60	59	60	69	65	67
3	75	67	69	65	64	65	82	60	62	68	62	64
4	75	68	70	66	65	65	83	58	65	63	62	62
5	73	71	72	80	66	71	60	58	59	69	63	65
6	72	71	72	71	63	65	95	58	69	65	63	64
7	74	72	73	64	63	63	59	57	58	66	63	65
8	75	73	74	66	64	65	60	58	59	69	64	66
9	76	74	75	66	65	66	59	58	59	68	65	66
10	76	75	76	67	65	66	59	58	59	68	65	66
11	77	76	76	82	65	68	60	58	59	68	66	67
12	78	77	77	93	58	70	61	60	61	70	68	69
13	79	78	78	58	54	56	61	60	61	70	69	70
14	81	78	79	55	53	54	62	60	61	70	69	69
15	81	80	80	55	54	54	63	61	62	69	68	69
16	80	72	76	60	56	59	70	61	65	70	68	69
17	85	73	78	61	59	60	62	59	61	73	69	71
18	92	85	88	61	60	60	88	60	70	79	71	74
19	96	92	94	62	61	62	61	59	60	77	73	75
20	96	95	95	63	62	63	59	58	59	74	73	74
21	96	94	95	64	63	63	62	58	60	76	73	74
22	95	93	94	65	64	65	62	62	62	75	73	74
23	115	95	103	66	64	65	---	---	---	74	73	73
24	98	93	97	66	65	66	---	---	---	74	72	73
25	93	87	89	68	67	67	---	---	---	72	71	72
26	95	86	90	68	67	67	62	61	62	73	71	72
27	89	80	84	68	67	68	63	61	62	73	71	72
28	80	76	78	70	68	69	65	62	64	74	72	73
29	95	74	80	77	65	70	66	64	65	74	72	73
30	75	72	73	63	59	60	65	63	64	75	73	74
31	73	62	66	---	---	---	64	63	64	75	73	74
MONTH	132	62	82	93	53	64	95	57	62	79	62	70

01118000 WOOD RIVER AT HOPE VALLEY, R.I.--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	86	72	78	55	53	54	75	58	63	75	72	74
2	83	77	79	60	55	58	59	56	57	82	74	78
3	80	75	77	57	55	56	58	56	57	89	64	79
4	74	71	73	59	55	56	58	56	57	65	58	60
5	72	70	71	91	57	69	59	57	58	59	56	57
6	72	71	72	56	53	55	59	57	58	59	56	57
7	73	70	71	55	52	53	60	59	59	58	57	57
8	72	70	71	62	54	57	63	59	61	60	57	58
9	70	69	70	56	53	54	60	59	60	58	56	57
10	76	69	71	55	53	54	60	59	60	58	56	57
11	75	70	72	56	54	55	60	58	59	60	58	59
12	107	68	75	64	50	57	59	58	59	61	59	60
13	110	60	73	49	43	45	60	58	59	68	58	61
14	59	56	58	45	44	44	62	60	61	60	58	59
15	57	55	56	46	44	45	63	61	62	61	59	60
16	58	55	57	49	47	48	63	62	63	62	60	61
17	60	57	59	50	48	49	64	63	63	64	59	61
18	59	58	59	63	49	52	64	63	63	63	59	61
19	59	57	58	51	49	50	65	63	64	62	60	61
20	58	57	57	52	51	52	64	63	64	64	60	61
21	57	56	57	53	52	52	66	64	65	78	57	63
22	58	56	57	53	51	52	67	65	66	65	60	62
23	58	56	57	55	52	53	67	65	66	66	62	63
24	58	55	56	56	54	55	91	66	71	67	63	64
25	55	53	54	56	55	55	73	71	72	65	62	63
26	53	52	53	56	55	56	74	71	73	64	63	63
27	56	53	54	57	56	56	74	72	73	65	63	64
28	55	53	54	59	56	57	74	73	73	66	63	65
29	---	---	---	59	58	58	76	73	74	74	57	63
30	---	---	---	60	58	59	75	73	74	57	55	55
31	---	---	---	60	59	60	---	---	---	57	55	56
MONTH	110	52	64	91	43	54	91	56	64	89	55	62
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	69	53	57	65	63	64	111	71	83	56	54	55
2	53	52	52	66	64	65	70	67	69	57	55	56
3	56	53	55	67	65	66	70	67	69	60	57	59
4	57	56	57	68	66	67	71	69	71	62	60	61
5	72	55	59	70	68	68	74	70	72	66	62	63
6	66	52	56	71	69	70	74	69	71	67	57	64
7	54	52	53	71	69	70	71	69	70	56	52	54
8	57	54	56	71	69	70	92	67	77	55	51	53
9	58	56	57	73	71	72	72	69	70	58	54	56
10	60	57	58	74	72	73	72	69	71	57	55	56
11	61	59	60	75	73	74	75	72	74	58	56	57
12	62	60	61	77	74	75	77	75	76	60	58	59
13	64	61	63	77	76	76	78	75	77	63	60	61
14	64	62	63	78	76	77	79	76	78	64	62	63
15	64	62	63	78	77	78	79	77	78	66	64	65
16	81	62	67	110	75	87	79	77	78	68	66	67
17	64	57	60	82	74	76	80	79	80	69	68	69
18	61	57	59	78	74	76	81	79	80	71	69	70
19	58	55	57	82	78	80	81	80	81	72	70	71
20	59	56	57	82	80	81	82	80	81	74	71	73
21	59	58	59	82	80	81	81	80	80	75	72	73
22	62	59	60	95	79	85	82	81	81	75	73	74
23	62	59	61	83	78	80	82	81	81	76	74	75
24	63	62	62	80	78	79	82	80	81	79	75	77
25	65	63	64	82	79	81	141	81	87	80	70	74
26	66	64	65	102	79	85	156	63	87	71	67	69
27	70	65	67	98	73	83	65	56	63	75	67	71
28	77	67	71	74	72	73	69	65	68	76	71	72
29	68	64	65	77	73	75	72	69	71	79	77	78
30	65	63	64	79	77	78	75	53	65	79	78	79
31	---	---	---	80	77	78	57	53	55	---	---	---
MONTH	81	52	60	110	63	76	156	53	75	80	51	66
YEAR	156	43	67									

01118000 WOOD RIVER AT HOPE VALLEY, R.I.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

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

01118000 WOOD RIVER AT HOPE VALLEY, R.I.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.5	17.0	18.0	21.5	17.0	19.0	23.0	21.0	22.0	---	---	---
2	20.5	18.0	19.5	21.5	18.5	20.0	22.5	20.0	21.0	---	---	---
3	22.0	19.0	20.5	22.5	19.5	20.5	22.5	19.0	20.5	---	---	---
4	22.5	19.5	20.5	24.0	20.5	22.0	22.5	19.0	20.5	---	---	---
5	20.0	18.0	19.0	23.5	20.5	22.0	23.0	19.5	20.5	---	---	---
6	18.0	16.5	17.5	23.0	21.5	22.0	23.0	19.5	21.0	---	---	---
7	19.5	16.0	17.5	23.5	21.0	22.0	22.5	19.5	21.0	---	---	---
8	17.5	17.0	17.5	23.5	21.0	22.5	22.0	20.5	21.0	---	---	---
9	19.0	16.5	17.5	25.0	21.0	22.5	24.0	20.5	22.0	---	---	---
10	21.0	17.0	19.0	25.0	21.5	23.0	24.0	21.5	22.5	---	---	---
11	21.5	18.5	19.5	25.0	22.0	23.0	24.5	21.5	23.0	---	---	---
12	20.0	19.0	19.5	24.5	21.0	22.5	24.5	22.5	23.5	---	---	---
13	19.5	17.5	18.5	25.0	21.0	22.5	24.5	21.0	22.5	---	---	---
14	19.0	16.5	17.5	23.5	21.0	22.0	25.0	21.0	23.0	21.0	19.0	20.0
15	19.5	16.0	17.5	23.5	21.5	22.0	25.5	22.0	23.5	21.0	18.0	19.5
16	18.5	16.5	17.5	22.5	21.0	21.5	24.0	22.0	23.0	21.5	18.0	19.5
17	19.0	17.5	18.5	24.0	21.0	22.0	24.0	21.0	22.5	20.5	17.5	18.5
18	19.5	18.5	19.0	24.0	20.5	22.0	22.5	20.0	21.5	20.0	17.5	18.5
19	21.0	18.5	19.5	24.5	20.5	22.0	21.5	20.5	21.0	22.0	18.0	19.5
20	21.5	19.0	20.0	24.5	21.0	22.5	22.5	20.0	21.0	22.0	19.0	20.0
21	21.5	18.5	20.0	25.5	21.5	23.0	20.5	19.0	20.0	22.5	20.0	21.0
22	22.0	18.5	20.0	25.0	21.5	23.0	20.5	19.0	19.5	22.5	20.5	21.5
23	20.5	19.5	20.0	24.5	21.5	23.0	21.0	18.0	19.5	22.0	21.0	21.5
24	20.5	19.0	19.5	24.0	20.5	22.0	20.5	17.0	19.0	22.0	21.5	22.0
25	20.0	18.0	19.0	24.0	19.5	21.5	19.0	18.0	18.5	23.0	21.0	22.0
26	19.0	17.5	18.5	22.0	21.5	21.5	21.0	19.0	20.0	21.0	17.5	20.5
27	17.5	16.0	17.0	24.5	21.0	22.5	22.5	20.0	21.5	21.0	20.0	20.5
28	16.5	15.5	16.0	24.5	21.0	22.5	23.0	21.5	22.0	---	---	---
29	16.0	16.0	16.0	24.5	21.5	22.5	23.0	21.0	22.0	21.0	18.5	19.0
30	19.0	16.0	17.0	25.0	20.5	22.5	21.0	20.0	20.5	20.5	18.0	19.0
31	---	---	---	22.5	21.5	22.0	20.0	17.5	19.0	---	---	---
MONTH	22.5	15.5	18.5	25.5	17.0	22.0	25.5	17.0	21.0	23.0	17.5	20.0
YEAR	25.5	.0	12.0									

01118500 PAWCATUCK RIVER AT WESTERLY, R.I.
(National stream-quality accounting network station)

LOCATION.--Lat 41°23'01", long 71°50'01", Washington County, Hydrologic Unit 01090005, on left bank at Westerly, 2.1 mi downstream from Shunock River.

DRAINAGE AREA.--295 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1051: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1.76 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 13 to Feb. 14, May 17-22. Records fair. Diurnal fluctuation at low flow prior to 1962 by mills upstream; regulation much greater prior to 1958. Diversion upstream for municipal supply of Westerly.

AVERAGE DISCHARGE.--44 years (water years 1942-85), 578 ft^3/s, 26.61 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,070 ft^3/s June 6, 1982, gage height, 12.86 ft; minimum daily, 25 ft^3/s Aug. 17, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a discharge of 3,150 ft^3/s, by computation of flow over dam 1.5 mi upstream. Maximum discharge since 1886 occurred in November 1927 and was possibly more than twice that in March 1936. Maximum stage, since at least 1635, 15.0 ft Sept. 21, 1938, due to hurricane tidal wave.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,300 ft^3/s Aug. 31, gage height, 8.44 ft; minimum daily, 124 ft^3/s Aug. 21, 22, 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	171	231	221	299	210	365	464	338	431	356	174	2640
2	221	217	214	303	220	361	523	338	459	324	195	2150
3	238	207	211	320	230	365	517	459	437	287	186	1760
4	234	198	221	324	225	365	493	740	400	267	165	1360
5	217	204	234	320	220	405	470	772	380	252	149	1110
6	201	221	279	316	220	476	453	696	442	245	139	1010
7	192	224	338	312	220	464	447	661	464	238	134	1150
8	186	214	329	307	215	453	442	574	426	231	160	1280
9	183	201	299	295	215	481	447	517	395	217	183	1170
10	180	195	283	295	210	476	437	481	380	207	174	1100
11	180	201	275	299	210	442	426	459	351	198	160	1050
12	180	267	275	299	240	626	421	437	333	186	147	957
13	186	316	271	290	730	1150	410	459	333	171	139	847
14	186	316	267	285	780	1110	405	505	320	165	134	774
15	171	291	263	280	580	971	405	476	307	163	131	677
16	165	271	263	275	470	814	400	447	329	180	129	615
17	171	260	260	270	400	718	400	450	410	231	129	567
18	177	249	256	265	380	668	395	440	437	234	129	521
19	177	238	260	260	365	620	385	425	421	211	127	477
20	177	227	271	255	361	587	385	415	390	192	127	443
21	174	221	279	250	356	561	380	430	351	174	124	417
22	174	217	320	245	356	529	375	560	324	174	124	399
23	201	214	385	240	361	517	375	554	299	183	127	375
24	227	211	375	235	365	505	370	476	291	177	124	375
25	227	207	351	230	380	487	370	431	295	163	129	411
26	214	204	333	225	385	481	365	410	283	168	385	430
27	211	204	320	220	380	464	361	390	271	192	561	417
28	211	201	307	215	375	459	351	375	291	198	410	392
29	231	207	307	215	---	453	347	426	338	183	275	380
30	249	217	312	210	---	447	342	442	365	160	620	352
31	245	---	307	210	---	442	---	426	---	149	3150	---
TOTAL	6157	6851	8886	8364	9659	17262	12361	15009	10953	6476	9040	25606
MEAN	199	228	287	270	345	557	412	484	365	209	292	854
MAX	249	316	385	324	780	1150	523	772	464	356	3150	2640
MIN	165	195	211	210	210	361	342	338	271	149	124	352
CFSM	.67	.77	.97	.92	1.17	1.89	1.40	1.64	1.24	.71	.99	2.89
IN.	.78	.86	1.12	1.05	1.22	2.18	1.56	1.89	1.38	.82	1.14	3.23

CAL YR 1984 TOTAL 263846 MEAN 721 MAX 3680 MIN 163 CFSM 2.44 IN. 33.27
WTR YR 1985 TOTAL 136624 MEAN 374 MAX 3150 MIN 124 CFSM 1.27 IN. 17.23

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953, 1963, 1976 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1978 to current year.
WATER TEMPERATURES: June 1978 to current year.
INSTRUMENTATION.--Water-quality monitor since June 1978.
REMARKS.--Interruptions in the record were due to instrument malfunction. Instantaneous records are representative of the cross section while continuous records are based on point samples. The instantaneous record values will not necessarily fall within the corresponding daily range of the continuous records.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 354 microsiemens June 25, 1985; minimum, 27 microsiemens June 7, 1982.
WATER TEMPERATURES: Maximum, 30.0°C Aug. 9, 1980; minimum, 0.0°C on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 354 microsiemens June 25; minimum, 55 microsiemens Aug. 31.
WATER TEMPERATURES: Maximum, 27.5°C Aug. 15; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)
OCT												
25...	0925	231	148	7.10	17.5	15.0	--	0.68	8.8	86	--	--
NOV												
14...	0930	316	93	6.70	6.0	9.0	--	0.92	10.4	91	--	1.0
DEC												
20...	1110	275	103	6.90	10.0	4.0	--	1.4	13.4	103	27	--
JAN												
22...	1030	252	114	7.30	<-5.0	0.0	--	1.5	14.1	98	--	--
FEB												
27...	0950	380	88	7.00	6.0	4.5	--	1.3	12.6	97	--	--
MAR												
14...	1245	1110	79	6.70	11.5	6.0	--	1.7	12.3	100	--	--
APR												
19...	1100	385	104	7.10	25.0	13.0	30	0.9	11.6	111	19	--
MAY												
16...	1130	442	92	6.90	21.5	18.5	--	0.8	9.4	101	--	1.0
JUN												
20...	1130	385	92	6.60	26.0	20.0	--	1.1	8.2	92	30	--
JUL												
11...	1045	198	99	7.20	29.5	24.5	--	1.0	10.2	123	--	1.0
AUG												
15...	0900	134	118	7.10	29.0	25.5	--	1.4	8.3	102	--	--
SEP												
04...	0915	1380	63	5.40	27.0	18.0	140	2.4	7.6	81	48	1.0
24...	0945	634	100	6.70	--	19.0	--	--	--	--	--	--

DATE	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT												
25...	--	130	84	--	20	--	5.4	1.6	--	--	--	23
NOV												
14...	--	760	380	--	17	7	4.4	1.4	10	1.4	10	17
DEC												
20...	--	45	72	--	17	--	4.6	1.4	--	--	--	16
JAN												
22...	--	180	180	--	20	7	5.5	1.5	13	1.2	13	17
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
14...	--	68	80	78	12	--	3.1	1.1	--	--	--	13
APR												
19...	560	K11	K3	11	16	3	4.3	1.3	12	1.1	13	16
MAY												
16...	1200	92	28	180	15	4	3.9	1.2	12	0.9	11	15
JUN												
20...	150	47	140	--	--	--	--	--	--	--	--	15
JUL												
11...	180	44	96	53	18	4	5.0	1.4	12	1.0	14	11
AUG												
15...	460	100	28	--	18	--	4.9	1.3	--	--	--	14
SEP												
04...	1200	140	150	--	13	11	3.5	0.97	6.5	1.0	2.0	11
24...	--	--	--	--	--	--	--	--	--	--	--	--

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.
K RESULTS BASED ON COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

01118500 PAWCATUCK RIVER AT WESTERLY, RI--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, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
OCT												
25...	16	--	--	98	0.13	61	--	100	--	<0.01	0.50	--
NOV												
14...	12	0.1	9.5	74	0.1	62	--	--	0.58	0.02	0.60	0.34
DEC												
20...	11	--	--	66	0.09	49	2	62	--	<0.01	0.50	--
JAN												
22...	13	0.2	9.4	71	0.1	48	--	82	0.58	0.02	0.60	0.61
FEB												
27...	--	--	--	11	--	--	--	--	--	<0.01	0.30	--
MAR												
14...	9.9	--	--	52	0.07	156	--	64	0.19	0.01	0.20	--
APR												
19...	12	--	--	68	0.09	71	5	74	0.39	0.01	0.40	--
MAY												
16...	8.9	0.3	4.7	78	0.11	92	--	--	--	<0.01	0.30	0.14
JUN												
20...	9.8	--	--	76	0.1	79	2	77	0.28	0.02	0.30	--
JUL												
11...	11	0.2	6.3	66	0.09	35	--	74	0.49	<0.01	0.50	0.46
AUG												
15...	12	--	--	76	0.1	27	--	82	--	<0.01	0.40	--
SEP												
04...	8.9	--	--	60	0.08	221	2	--	--	<0.01	0.10	--
24...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)
OCT												
25...	0.03	--	0.17	0.2	0.7	0.06	0.07	0.06	--	--	--	--
NOV												
14...	0.07	<0.01	0.13	0.2	0.8	0.03	0.02	0.07	0.02	--	90	--
DEC												
20...	0.04	--	0.46	0.5	1.0	<0.01	<0.01	0.01	--	--	--	--
JAN												
22...	0.13	0.14	0.17	0.3	0.9	0.05	0.04	0.03	0.02	--	200	--
FEB												
27...	<0.01	--	--	0.4	0.7	0.02	--	<0.01	--	--	--	--
MAR												
14...	0.09	--	0.51	0.6	0.8	0.02	<0.01	0.01	--	--	--	--
APR												
19...	0.05	--	0.15	0.2	0.6	0.05	<0.01	0.02	--	90	--	<1
MAY												
16...	<0.01	<0.01	--	0.2	0.5	0.02	0.02	<0.01	0.01	--	110	--
JUN												
20...	0.09	--	0.21	0.3	0.6	0.06	0.05	0.05	--	--	--	--
JUL												
11...	--	--	--	0.3	0.8	0.05	0.03	0.03	0.03	--	60	--
AUG												
15...	0.05	--	0.35	0.4	0.8	0.05	0.04	<0.01	--	--	--	--
SEP												
04...	0.05	--	0.65	0.7	0.8	0.05	0.03	0.03	--	260	--	<1
24...	--	--	--	--	--	--	--	--	--	--	--	--

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
OCT												
25...	--	--	--	--	--	<1	--	<1	--	--	2	--
NOV												
14...	<1	16	<0.5	--	--	<1	--	<1	<3	--	<1	--
DEC												
20...	--	--	--	--	--	<1	--	<1	--	--	1	--
JAN												
22...	<1	16	<0.5	--	--	<1	--	<1	<3	--	1	--
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
14...	--	--	--	--	--	1	--	<1	--	--	2	--
APR												
19...	--	--	--	--	1	<1	10	<1	--	3	1	420
MAY												
16...	4	23	<0.5	--	--	<1	--	20	<3	--	<1	--
JUN												
20...	--	--	--	--	--	<1	--	<1	--	--	4	--
JUL												
11...	1	14	0.9	--	--	<1	--	3	<3	--	3	--
AUG												
15...	--	--	--	--	--	<1	--	1	--	--	5	--
SEP												
04...	--	--	--	50	1	<1	10	<1	--	6	4	870
24...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)
OCT												
25...	--	--	<5	--	--	--	--	--	--	--	--	1
NOV												
14...	270	--	<5	<4	--	27	--	<0.1	--	<10	--	1
DEC												
20...	--	--	<5	--	--	--	--	--	--	--	--	1
JAN												
22...	170	--	<5	<4	--	46	--	0.5	--	<10	--	<1
FEB												
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
14...	--	--	<5	--	--	--	--	--	--	--	--	<1
APR												
19...	--	<5	<5	--	40	--	0.3	--	31	--	2	1
MAY												
16...	220	--	<5	<4	--	40	--	0.5	--	<10	--	1
JUN												
20...	--	--	<5	--	--	--	--	--	--	--	--	2
JUL												
11...	280	--	<5	5	--	21	--	0.6	--	<10	--	1
AUG												
15...	--	--	<5	--	--	--	--	--	--	--	--	2
SEP												
04...	--	6	5	--	120	--	0.1	--	<1	--	2	1
24...	--	--	--	--	--	--	--	--	--	--	--	--

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)
OCT											
25...	--	--	--	--	--	--	--	14	5.3	--	--
NOV											
14...	--	<1	--	<1	33	<6	--	10	7.9	--	--
DEC											
20...	--	--	--	--	--	--	--	18	5.7	--	--
JAN											
22...	--	<1	--	<1	40	<6	--	10	4.2	--	--
FEB											
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
14...	--	--	--	--	--	--	--	12	6.8	--	--
APR											
19...	<1	--	<1	--	--	--	40	7	5.0	3	<1
MAY											
16...	--	<1	--	<1	30	<6	--	8	6.5	--	--
JUN											
20...	--	--	--	--	--	--	--	<10	6.6	--	--
JUL											
11...	--	<1	--	<1	35	<6	--	17	4.9	--	--
AUG											
15...	--	--	--	--	--	--	--	12	8.0	--	--
SEP											
04...	<1	--	<1	--	--	--	40	30	16	2	<1
24...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)
APR												
19...	1100	<0.1	--	<0.1	--	<0.01	--	<0.1	--	<0.01	--	<0.01
SEP												
04...	0915	<0.1	--	<0.1	--	<0.01	--	<0.1	--	<0.01	--	<0.01
24...	0945	--	3	--	<1.0	--	<0.1	--	3.0	--	1.3	--

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)
APR												
19...	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
SEP												
04...	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
24...	1.3	--	0.4	--	0.2	--	<0.1	--	<0.1	--	<0.1	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
APR											
19...	--	<0.01	--	<0.01	--	<0.01	--	<0.1	--	<1	--
SEP											
04...	--	<0.01	--	<0.01	--	<0.01	--	<0.1	--	<1	--
24...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<1.00	--	<10

SUSPENDED SEDIMENT MEASUREMENTS, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED, SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
14...	0930	316	10	17	--
JAN					
22...	1030	252	21	--	--
MAY					
16...	1130	442	19	31	40
JUL					
11...	1045	198	16	18	31

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	186	166	180	127	120	123	120	113	118	87	84	85
2	165	131	150	131	128	130	119	113	116	86	84	85
3	180	126	150	129	127	128	118	110	113	87	83	84
4	177	150	162	130	126	128	110	101	103	89	87	88
5	150	147	148	130	116	124	113	102	110	100	88	91
6	151	143	148	117	108	111	112	102	108	94	91	93
7	142	129	135	124	116	122	121	103	111	94	88	91
8	129	118	124	125	119	121	103	100	102	88	85	86
9	118	113	115	128	118	121	102	95	98	95	81	88
10	114	111	113	128	121	125	95	90	93	97	91	94
11	112	110	111	126	119	123	92	89	90	97	95	96
12	126	112	118	131	104	115	98	92	95	107	95	101
13	141	127	134	109	95	103	99	96	98	107	106	107
14	151	142	148	98	92	95	113	97	102	106	104	105
15	158	152	155	100	93	96	108	103	104	103	99	101
16	158	141	150	100	95	97	107	105	106	112	101	105
17	141	125	131	103	96	101	105	98	101	124	112	117
18	137	126	130	107	102	104	98	94	95	125	118	120
19	146	137	141	105	98	100	102	95	98	128	125	126
20	157	147	154	99	96	97	107	101	103	128	126	127
21	158	146	154	103	96	100	110	106	108	132	125	129
22	152	139	149	110	103	106	113	103	106	125	118	120
23	137	124	131	111	108	109	108	91	100	130	119	123
24	149	120	129	108	100	104	91	85	90	144	131	137
25	151	147	149	100	97	98	86	81	83	141	134	138
26	147	143	144	100	96	96	84	83	84	137	133	135
27	155	143	149	100	93	96	89	84	85	136	132	135
28	155	145	151	102	95	97	94	89	92	132	119	125
29	146	121	133	116	101	109	95	93	94	119	113	115
30	128	118	123	120	114	117	95	90	93	126	112	116
31	126	121	123	---	---	---	91	86	88	133	127	130
MONTH	186	110	140	131	92	110	121	81	100	144	81	109

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	147	133	140	94	89	91	93	89	91	107	98	102
2	147	140	142	95	94	95	93	90	91	121	108	114
3	144	140	142	99	95	97	92	89	91	122	116	119
4	144	124	133	98	91	94	90	88	89	125	104	116
5	125	118	121	102	92	97	96	89	91	103	87	97
6	134	117	124	106	98	100	101	93	97	---	---	---
7	142	131	136	103	96	100	93	88	90	---	---	---
8	144	138	141	100	94	96	88	85	87	---	---	---
9	139	137	138	99	97	98	90	86	88	---	---	---
10	169	129	140	100	93	96	96	91	93	---	---	---
11	162	121	128	93	87	89	98	95	96	---	---	---
12	133	116	121	88	86	87	101	98	100	---	---	---
13	131	115	123	92	88	89	102	100	101	---	---	---
14	120	108	115	88	79	83	103	95	100	---	---	---
15	107	99	102	79	76	78	95	91	93	---	---	---
16	101	98	99	79	76	77	91	88	89	---	---	---
17	101	98	99	79	78	78	100	92	96	---	---	---
18	100	94	96	79	78	79	103	100	101	---	---	---
19	96	92	94	82	80	81	106	101	103	---	---	---
20	101	96	99	85	82	83	107	102	105	---	---	---
21	102	98	100	86	83	85	110	107	109	---	---	---
22	101	99	100	88	86	87	110	102	106	---	---	---
23	101	97	100	89	87	88	102	95	98	---	---	---
24	97	93	95	89	85	87	107	98	103	---	---	---
25	93	85	88	86	84	85	108	106	107	---	---	---
26	86	82	83	86	83	84	111	108	110	---	---	---
27	90	86	88	90	86	88	113	110	111	---	---	---
28	91	86	89	93	91	91	117	113	115	---	---	---
29	---	---	---	94	91	93	113	100	105	---	---	---
30	---	---	---	95	93	94	100	96	98	---	---	---
31	---	---	---	96	93	95	---	---	---	107	105	106
MONTH	169	82	113	106	76	89	117	85	98	125	87	109

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	106	100	102				---	---	---	86	66	73
2	102	99	100				---	---	---	65	61	63
3	99	92	94				---	---	---	63	60	61
4	91	87	90				---	---	---	67	63	66
5	101	92	97				---	---	---	69	66	67
6	114	100	108				136	132	134	70	68	69
7	108	102	104				130	113	120	70	67	68
8	102	97	99				114	103	108	67	62	64
9	99	96	97				116	109	113	67	63	65
10	98	93	95				111	102	105	70	67	69
11	94	91	93				114	104	107	72	69	71
12	105	96	100				114	108	111	73	70	72
13	112	106	109				117	112	114	76	72	74
14	116	110	114				119	113	116	78	76	77
15	112	110	111				121	116	118	81	72	78
16	114	106	111				124	119	121	80	72	78
17	108	102	105				125	122	123	82	72	78
18	102	97	99				129	123	125	86	81	83
19	99	94	97				133	128	130	89	84	86
20	98	94	96				136	132	134	92	89	90
21	100	97	99				136	132	134	96	82	91
22	101	97	98				137	130	133	95	83	93
23	99	94	97				133	123	132	94	91	92
24	96	93	94				133	128	130	94	91	92
25	354	91	182				132	119	127	95	92	93
26	268	127	175				131	96	109	97	94	95
27	---	---	---				112	99	106	100	95	97
28	---	---	---				110	105	108	100	92	97
29	---	---	---				109	104	107	96	93	94
30	---	---	---				108	66	92	97	94	95
31	---	---	---				87	55	68	---	---	---
MONTH	354	87	106				137	55	116	100	60	80
YEAR	354	55	106									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	5.5	3.0	4.0	10.0	9.0	9.5	19.0	15.5	17.0
2	.0	.0	.0	6.5	4.0	5.0	9.0	7.5	8.5	17.0	15.0	16.0
3	.0	.0	.0	6.0	4.0	5.0	8.0	7.0	7.5	15.0	12.5	14.0
4	.0	.0	.0	4.5	3.5	4.0	9.5	7.0	8.0	13.0	11.5	12.5
5	.0	.0	.0	6.0	4.0	4.5	11.0	8.5	10.0	13.0	12.0	12.5
6	.0	.0	.0	5.0	3.5	4.0	12.0	10.5	11.5	---	---	---
7	.0	.0	.0	4.5	3.0	3.5	13.5	11.0	12.0	---	---	---
8	.0	.0	.0	4.5	3.5	4.0	13.5	11.5	12.0	---	---	---
9	.0	.0	.0	5.5	3.5	4.5	13.0	10.5	11.5	---	---	---
10	.0	.0	.0	6.5	4.0	5.0	12.0	9.5	10.5	---	---	---
11	.0	.0	.0	6.5	4.5	5.5	11.0	9.5	10.0	---	---	---
12	.0	.0	.0	6.5	6.0	6.5	12.0	9.0	10.0	---	---	---
13	.0	.0	.0	6.5	6.0	6.5	10.5	9.5	10.0	---	---	---
14	.0	.0	.0	7.0	6.0	6.5	10.0	9.5	9.5	---	---	---
15	.0	.0	.0	7.0	5.5	6.5	12.0	9.0	10.5	---	---	---
16	.5	.0	.0	6.0	5.0	5.5	13.5	11.0	12.0	---	---	---
17	1.0	.0	.5	5.5	4.5	5.0	14.5	11.5	13.0	---	---	---
18	2.0	.0	1.0	5.5	4.5	5.0	14.0	11.5	12.5	---	---	---
19	2.5	.5	1.5	5.5	4.0	4.5	15.0	12.0	13.5	---	---	---
20	3.0	1.0	2.0	6.0	4.5	5.0	14.5	13.0	13.5	---	---	---
21	3.0	1.0	2.0	7.0	5.0	6.0	16.5	12.5	14.5	---	---	---
22	4.0	2.0	3.0	7.0	5.0	6.0	17.0	14.0	15.5	---	---	---
23	4.5	3.0	3.5	7.0	5.5	6.0	17.0	14.5	15.5	---	---	---
24	6.0	3.5	4.5	7.0	5.5	6.5	14.5	14.0	14.0	---	---	---
25	6.5	5.0	5.5	7.5	5.5	6.5	14.5	13.5	14.0	---	---	---
26	5.5	5.0	5.5	7.5	5.5	6.5	17.0	13.0	15.0	---	---	---
27	6.0	4.0	5.5	8.5	6.0	7.0	17.5	14.5	16.0	---	---	---
28	5.5	3.5	4.0	10.5	7.5	9.0	17.0	14.5	16.0	---	---	---
29	---	---	---	13.0	10.0	11.0	18.5	15.0	16.5	---	---	---
30	---	---	---	13.0	11.0	12.0	19.0	14.5	17.0	---	---	---
31	---	---	---	11.5	10.0	11.0	---	---	---	18.5	17.5	18.0
MONTH	6.5	.0	1.5	13.0	3.0	6.0	19.0	7.0	12.5	19.0	11.5	15.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.5	17.5	18.0				---	---	---	18.0	17.5	18.0
2	20.0	17.5	19.0				---	---	---	17.5	17.0	17.5
3	21.5	18.5	20.0				---	---	---	18.0	16.5	17.5
4	22.0	19.5	20.5				---	---	---	19.0	17.5	18.5
5	20.0	17.5	19.0				---	---	---	20.5	19.0	19.5
6	19.0	17.0	18.0				25.0	22.5	24.0	21.5	20.0	21.0
7	19.0	17.0	18.0				24.5	22.0	23.0	21.0	20.5	21.0
8	18.0	17.0	17.5				24.0	23.0	23.0	21.0	20.0	20.5
9	18.0	17.0	17.5				25.5	22.0	24.0	20.5	20.0	20.5
10	20.5	17.0	19.0				26.0	23.0	24.5	20.0	19.5	20.0
11	21.0	18.0	19.5				26.0	23.5	24.5	19.5	18.5	19.0
12	20.0	19.0	19.5				26.0	24.0	25.0	18.5	17.0	17.5
13	20.5	18.0	19.0				26.0	23.0	24.5	17.0	15.5	16.5
14	20.0	17.5	18.5				27.0	24.0	25.5	16.0	15.0	15.5
15	20.5	17.0	19.0				27.5	24.5	26.0	16.0	14.5	15.0
16	19.0	18.0	18.5				26.5	24.5	25.5	16.0	14.5	15.0
17	19.5	18.0	18.5				26.5	23.5	24.5	16.0	14.5	15.5
18	19.5	18.5	19.0				24.5	23.0	23.5	16.5	14.5	15.5
19	20.5	18.5	19.5				23.5	23.0	23.0	17.0	15.0	16.0
20	21.5	19.0	20.0				24.5	22.0	23.0	18.0	15.5	17.0
21	22.0	19.0	20.5				22.5	22.0	22.5	18.5	16.5	17.5
22	22.5	19.5	21.0				22.5	21.0	21.5	19.0	17.5	18.0
23	21.5	20.0	20.5				23.5	20.0	21.5	19.0	18.0	18.5
24	21.0	19.5	20.5				23.0	20.0	21.5	19.0	18.0	18.5
25	20.5	18.5	19.5				21.5	20.5	21.0	19.5	18.0	18.5
26	19.5	18.5	19.0				21.5	20.5	21.0	18.5	17.5	18.0
27	---	---	---				22.0	20.5	21.5	18.5	17.5	18.0
28	---	---	---				22.5	21.0	22.0	18.5	17.0	17.5
29	---	---	---				22.5	21.5	22.0	18.0	16.5	17.0
30	---	---	---				21.5	19.5	20.5	17.5	16.0	16.5
31	---	---	---				19.5	18.0	18.5	---	---	---
MONTH	22.5	17.0	19.0				27.5	18.0	23.0	21.5	14.5	18.0
YEAR	27.5	.0	10.5									

01123360 QUINEBAUG RIVER BELOW EAST BRIMFIELD DAM, AT FISKDALE, MASS.

LOCATION.--Lat 42°06'31", long 72°07'27", Worcester County, Hydrologic Unit 01100001, on right bank at Fiskdale, 750 ft downstream from East Brimfield Dam, and 2.4 mi upstream from Cedar Pond outlet.

DRAINAGE AREA.--67.4 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 613.51 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark).

REMARKS.--No estimated daily discharges. Records good. Flow regulated by East Brimfield Lake (Reservoirs in Thames River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--13 years, 132 ft^3/s, 26.60 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft^3/s Jan. 30, 1976, gage height, 6.42 ft; maximum gage height, 6.52 ft Mar. 17, 1977; minimum daily discharge, 2.2 ft^3/s Sept. 10, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1886, 15,400 ft^3/s Aug. 19, 1955, by slope-area measurement. Flood of Mar. 18, 1936, reached a discharge of 2,390 ft^3/s and flood in September 1938, 7,000 ft^3/s, both by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 254 ft^3/s Apr. 27, gage height, 4.30 ft; minimum daily, 13 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	34	30	29	47	19	102	79	71	58	78	116	92
2	62	31	27	50	21	87	94	49	64	65	139	92
3	75	27	25	55	23	76	96	60	57	51	131	78
4	74	23	29	53	23	67	95	109	45	46	102	60
5	62	26	30	47	23	74	87	128	39	45	69	46
6	49	32	38	41	24	93	85	127	45	41	46	38
7	43	28	48	38	25	97	80	125	46	38	34	34
8	40	24	48	38	24	100	91	118	44	34	34	33
9	39	22	43	33	24	116	116	102	44	29	36	48
10	36	23	40	31	22	119	124	85	42	31	36	101
11	28	28	39	28	22	108	118	71	35	29	33	130
12	22	64	40	25	24	137	100	60	32	25	38	123
13	18	75	44	24	68	215	73	55	40	27	45	99
14	17	58	46	24	118	231	62	50	42	27	44	76
15	16	41	44	24	151	232	63	46	37	40	36	56
16	17	35	39	23	148	219	63	44	37	60	30	44
17	43	28	38	22	122	173	62	42	53	66	25	36
18	70	23	37	22	93	148	45	45	65	57	21	31
19	72	20	35	22	75	132	33	51	65	44	18	28
20	68	18	40	23	65	124	33	56	53	35	17	26
21	53	17	43	23	59	123	33	57	42	26	17	24
22	37	18	54	23	56	119	33	68	35	25	16	22
23	39	19	71	22	65	114	33	71	30	23	15	20
24	38	20	75	21	92	105	37	64	33	20	13	23
25	35	19	72	21	132	96	46	53	61	16	19	43
26	34	18	63	22	146	87	46	44	88	19	39	57
27	35	18	53	22	142	80	114	37	90	31	59	35
28	34	18	46	22	122	79	44	35	82	38	65	156
29	34	23	46	21	---	77	162	41	80	37	56	238
30	34	29	54	20	---	76	138	45	82	30	47	216
31	32	---	52	20	---	71	---	46	---	32	81	---
TOTAL	1290	855	1388	907	1928	3677	2285	2055	1566	1165	1477	2105
MEAN	41.6	28.5	44.8	29.3	68.9	119	76.2	66.3	52.2	37.6	47.6	70.2
MAX	75	75	75	55	151	232	162	128	90	78	139	238
MIN	16	17	25	20	19	67	33	35	30	16	13	20
MEAN†	42.8	28.5	45.4	28.6	71.6	118	76.2	65.1	52.9	37.6	48.3	72.8
CFSM†	.64	.42	.67	.42	1.06	1.75	1.13	.97	.78	.56	.72	1.08
IN†	.73	.47	.78	.49	1.11	2.02	1.26	1.11	.88	.64	.83	1.20

CAL YR 1984 TOTAL 54577.2 MEAN 149 MAX 888 MIN 6.8 MEAN† 149 CFSM† 2.21 IN† 30.02
WTR YR 1985 TOTAL 20698 MEAN 56.7 MAX 238 MIN 13 MEAN† 57.2 CFSM† .85 IN† 11.52

† Adjusted for change in contents in East Brimfield Lake.

01123600 QUINEBAUG RIVER BELOW WESTVILLE DAM, NEAR SOUTHBRIDGE, MASS.

LOCATION.--Lat 42°04'58", long 72°03'27", Worcester County, Hydrologic Unit 01100001, on right bank 200 ft downstream from Westville Dam, 1.0 mi upstream from McKinstry Brook, and 1.3 mi west of Southbridge.

DRAINAGE AREA.--99.0 mi^2

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

REVISED RECORDS.--WDR MA-RI-75-1: 1963-64 (monthly runoff). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 511.33 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark).

REMARKS.--Estimated daily discharges: Sept. 11, 12. Records good except those for estimated daily discharges, which are fair. Flow regulated by mills, by East Brimfield and Westville Lakes (Reservoirs in Thames River basin), and by other reservoirs upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--23 years, 171 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,850 ft^3/s Mar. 23, 1980, gage height, 6.83 ft; minimum daily, 7.3 ft^3/s Nov. 21, 28, 1964, July 30, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 346 ft^3/s Sept. 29, gage height, 4.85 ft; minimum daily, 17 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	52	42	45	70	30	131	111	90	72	103	159	127
2	88	42	43	73	33	109	125	65	74	86	180	116
3	88	39	41	78	35	103	124	85	68	72	163	113
4	82	35	49	75	34	97	122	129	57	64	133	89
5	76	39	49	70	34	108	112	139	51	59	100	66
6	57	44	61	61	36	128	108	145	61	55	75	53
7	48	43	72	57	38	124	104	147	60	51	54	54
8	45	39	68	56	36	135	125	134	56	47	55	48
9	45	33	62	50	35	155	149	116	59	42	56	57
10	44	34	58	52	35	153	148	100	55	40	53	123
11	40	42	56	39	33	142	141	88	47	40	48	180
12	32	87	59	40	36	198	126	78	43	38	51	170
13	24	92	65	38	74	271	109	72	47	39	52	135
14	23	80	67	38	153	283	93	68	49	40	53	105
15	21	62	63	38	199	283	87	62	47	61	48	85
16	21	57	58	40	192	280	86	55	46	74	42	69
17	33	48	55	30	177	244	85	53	76	80	38	59
18	68	42	55	47	137	190	83	63	79	72	34	53
19	73	38	55	24	103	175	53	70	79	60	28	49
20	71	35	65	36	91	162	49	71	67	50	27	45
21	62	33	62	36	88	164	54	69	56	42	26	43
22	48	32	82	35	83	154	56	72	48	40	25	41
23	54	33	97	35	89	148	58	78	41	39	24	40
24	48	33	98	34	120	139	56	75	51	33	24	42
25	46	33	98	34	164	135	65	66	74	17	29	73
26	46	30	86	35	176	119	65	58	96	35	50	81
27	47	30	75	35	171	104	114	50	108	61	81	107
28	46	29	67	34	152	107	68	48	106	51	92	154
29	46	38	69	33	---	107	112	60	110	49	71	282
30	46	44	76	33	---	106	159	58	110	43	51	312
31	44	---	72	28	---	99	---	56	---	45	114	---
TOTAL	1564	1308	2028	1384	2584	4853	2947	2520	1993	1628	2036	2971
MEAN	50.5	43.6	65.4	44.6	92.3	157	98.2	81.3	66.4	52.5	65.7	99.0
MAX	88	92	98	78	199	283	159	147	110	103	180	312
MIN	21	29	41	24	30	97	49	48	41	17	24	40

CAL YR 1984 TOTAL 79700 MEAN 218 MAX 1390 MIN 13
WTR YR 1985 TOTAL 27816 MEAN 76.2 MAX 312 MIN 17

01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.

LOCATION.--Lat 42°01'20", long 71°57'22", Windham County, Hydrologic Unit 01100001, on right bank at Quinebaug, 500 ft upstream from bridge on State Highway 197, 0.2 mi downstream from Massachusetts-Connecticut State line, 7.8 mi upstream from French River, and at mile 46.

DRAINAGE AREA.--155 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 851: 1936(M). WSP 1201: 1939-43, 1949. WSP 1381: 1938(M). WDR MA-RI-83-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 341.52 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 5 to Feb. 11. Records good except those for estimated daily discharges, which are fair. Flow regulated by East Brimfield and Westville Lakes, (Reservoirs in Thames River basin), and by smaller reservoirs upstream.

AVERAGE DISCHARGE.--54 years, 272 ft^3/s, 23.85 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,300 ft^3/s Aug. 19, 1955, gage height, 18.96 ft, from floodmarks, from rating curve extended above 5,100 ft^3/s on basis of slope-area measurement of peak flow; minimum, about 1 ft^3/s Sept. 9, 1943, July 12, 1949, Sept. 17, 18, 1950, July 9, 1951, Sept. 4 and Oct. 29, 1956, Jan. 27, 1985 (result of freezeup); minimum gage height, 1.74 ft Aug. 20, 1940; minimum daily discharge, about 1 ft^3/s Sept. 4, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 747 ft^3/s Mar. 12; maximum gage height, 3.89 ft Jan. 11 (backwater from ice); minimum discharge, about 1.0 ft^3/s Jan. 27, result of freezeup, gage height, 1.87 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	69	65	85	156	56	221	206	142	121	140	364	204
2	147	66	77	153	55	204	226	88	128	103	297	169
3	128	58	79	176	54	178	221	206	107	109	228	143
4	113	53	103	155	53	168	229	258	86	87	178	121
5	105	73	96	125	53	236	190	244	88	78	138	95
6	81	79	132	106	53	264	180	246	102	70	86	76
7	69	73	160	100	53	224	171	260	93	64	83	67
8	64	65	141	95	52	262	236	243	93	67	95	67
9	62	59	125	93	51	295	267	174	101	52	86	82
10	64	57	108	90	50	279	259	172	82	52	75	205
11	57	97	107	84	50	259	244	142	66	33	77	217
12	50	234	109	78	78	507	189	126	84	48	84	187
13	41	207	138	73	310	651	183	118	52	32	83	158
14	35	164	132	69	300	582	182	109	70	44	80	133
15	33	123	126	66	341	527	154	84	65	111	72	68
16	20	110	112	64	335	475	151	87	75	88	59	92
17	20	92	110	62	306	426	134	99	145	99	53	70
18	83	80	106	61	243	353	129	152	132	99	46	76
19	96	73	112	60	187	312	129	158	111	72	41	29
20	92	67	136	60	164	295	102	145	93	52	38	53
21	83	60	135	60	153	297	101	125	68	47	36	50
22	70	57	195	60	152	273	78	134	84	66	34	48
23	96	56	234	60	180	259	112	134	61	54	32	80
24	75	56	217	60	236	252	105	123	89	40	29	56
25	69	56	212	60	332	235	109	96	114	28	52	97
26	79	52	180	70	326	211	120	90	121	60	102	94
27	76	50	154	67	310	180	150	80	124	88	131	129
28	72	47	129	64	267	183	151	93	129	79	134	180
29	85	78	152	62	---	181	127	116	157	75	116	362
30	78	97	158	60	---	175	229	94	157	72	90	415
31	71	---	148	58	---	144	---	65	---	55	218	---
TOTAL	2283	2504	4208	2607	4800	9108	5064	4403	2998	2164	3237	3823
MEAN	73.6	83.5	136	84.1	171	294	169	142	99.9	69.8	104	127
MAX	147	234	234	176	341	651	267	260	157	140	364	415
MIN	20	47	77	58	50	144	78	65	52	28	29	29
MEAN†	74.9	83.5	137	83.3	174	293	169	141	101	69.9	105	132
CFSM†	.48	.54	.88	.54	1.12	1.89	1.09	.91	.65	.45	.68	.85
IN†	.55	.60	1.02	.62	1.17	2.18	1.22	1.05	.72	.52	.78	.95

CAL YR 1984 TOTAL 132657 MEAN 362 MAX 2240 MIN 19 MEAN† 361 CFSM† 2.33 IN† 31.75
WTR YR 1985 TOTAL 47199 MEAN 129 MAX 651 MIN 20 MEAN† 130 CFSM† .84 IN† 11.38

† Adjusted for change in contents in East Brimfield and Westville Reservoirs.

01124000 QUINEBAUG RIVER AT QUINEBAUG, CT.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses available for water years 1953 (WSP 1290), 1960 (WSP 1741), 1963 (WSP 1941), 1969 (WSP 2143). Water temperatures available for water year 1960 (WSP 1741), 1980 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1959 to September 1960, October 1968 to September 1969.
pH: October 1959 to September 1960, October 1968 to September 1969.
WATER TEMPERATURES: October 1959 to September 1960, October 1968 to September 1969.
DISSOLVED OXYGEN: October 1959 to September 1960, October 1968 to September 1969.
INSTRUMENTATION.--Multiple parameter water-quality monitor located on right bank 50 ft upstream from bridge on Massachusetts State Highway 131, 0.2 mi upstream from State line, 0.4 mi upstream from gaging station, 2.0 mi southwest of Dudley, Massachusetts.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 308 microsiemens Jan. 31, 1969; minimum, 49 microsiemens Apr. 2, 1960.
pH: Maximum, 7.7 units June 14, 1969; minimum, 5.8 units July 18, 1969.
WATER TEMPERATURE: Maximum, 30.5 C July 16, 1969; minimum, 0.0 C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.1 mg/L Dec. 28, 1968; minimum, 1.4 mg/L Sept. 7, 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
24...	1215	70	120	7.2	15.5	16.5	0.67	9.9	102	440	84
NOV											
20...	1020	65	142	6.9	1.0	2.5	2.4	13.8	102	K7	K13
DEC											
19...	1000	135	135	6.9	5.5	3.5	1.7	13.2	100	K10	K4
JAN											
18...	1025	70	165	7.2	<1.0	0.0	0.8	12.0	84	K3	K7
MAR											
12...	1015	418	108	6.9	12.0	5.0	1.3	12.4	101	420	5200
APR											
18...	0930	129	130	6.8	6.0	9.0	1.1	11.5	100	K16	K6
MAY											
15...	0900	70	128	6.7	19.0	18.0	0.6	9.2	98	110	K11
JUN											
18...	0845	135	130	7.4	20.5	19.5	1.0	7.4	83	380	340
JUL											
09...	0819	52	132	6.4	24.5	22.5	1.6	7.8	91	76	92
AUG											
13...	0900	78	130	6.8	21.0	23.0	1.1	7.5	88	180	35
SEP											
04...	1445	126	130	6.8	29.5	22.0	1.5	8.7	102	520	120

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT										
24...	22	--	5.9	1.8	--	13	18	--	85	0.12
NOV										
20...	26	14	7.0	2.0	12	15	22	5.6	85	0.12
DEC										
19...	24	--	6.5	1.9	--	15	29	--	76	0.1
JAN										
18...	28	17	7.6	2.2	11	17	24	7.5	83	0.11
MAR										
12...	20	--	5.5	1.6	--	12	20	--	68	0.09
APR										
18...	23	--	6.4	1.8	--	12	23	--	78	0.11
MAY										
15...	25	13	7.0	1.9	12	13	24	3.1	84	0.11
JUN										
18...	--	--	--	--	--	9.4	23	--	78	0.11
JUL										
09...	24	12	6.6	1.9	12	10	24	2.6	82	0.11
AUG										
13...	25	--	7.7	1.4	--	10	23	--	83	0.11
SEP										
04...	23	--	6.2	1.9	--	9.5	21	--	81	0.11

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.
K RESULTS ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

01124000 QUINEBAUG RIVER AT QUINEBAUG, CT.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 24...	16	83	0.38	0.02	0.40	0.06	0.24	0.3	0.7	0.30
NOV 20...	15	86	0.38	0.02	0.40	0.23	1.2	1.4	1.8	0.24
DEC 19...	28	85	--	<0.01	0.20	0.42	0.38	0.8	1.0	0.29
JAN 18...	16	100	0.38	0.02	0.40	0.73	0.37	1.1	1.5	0.28
MAR 12...	77	90	0.38	0.02	0.40	0.21	0.89	1.1	1.5	0.13
APR 18...	27	88	0.08	0.02	0.10	0.27	0.03	0.3	0.4	0.24
MAY 15...	16	88	0.47	0.03	0.50	0.09	0.71	0.8	1.3	0.31
JUN 18...	28	96	0.44	0.06	0.50	0.36	0.34	0.7	1.2	0.21
JUL 09...	12	92	0.65	0.05	0.70	0.15	0.65	0.8	1.5	0.15
AUG 13...	17	116	0.36	0.04	0.40	0.15	0.65	0.8	1.2	0.30
SEP 04...	28	96	0.29	0.01	0.30	0.12	0.78	0.9	1.2	0.18

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	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)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 24...	0.27	<1	<1	4	--	<5	--	2	14	4.2
NOV 20...	0.20	<1	2	1	250	<5	27	<1	9	6.0
DEC 19...	0.23	<1	3	2	--	<5	--	1	19	4.5
JAN 18...	0.25	<1	1	3	200	<5	45	2	15	4.0
MAR 12...	0.05	<1	<1	3	--	<5	--	1	13	3.6
APR 18...	0.16	<1	<1	1	--	<5	--	<1	7	4.1
MAY 15...	0.26	<1	3	5	210	<5	38	3	7	4.4
JUN 18...	0.18	1	<1	2	--	<5	--	2	<10	6.2
JUL 09...	0.12	<1	2	6	360	<5	21	4	6	4.7
AUG 13...	0.24	<1	6	7	--	<5	--	6	15	7.9
SEP 04...	0.15	<1	1	5	--	<5	--	3	9	6.6

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01124350 FRENCH RIVER BELOW HODGES VILLAGE DAM, AT HODGES VILLAGE, MASS.

LOCATION.--Lat 42°07'06", long 71°52'54", Worcester County, Hydrologic Unit 01100001, on right bank at Hodges Village, 240 ft downstream from Hodges Village Dam, 0.8 mi west of Oxford, and 1.2 mi upstream from Little River.

DRAINAGE AREA.--31.2 mi^2.

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

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 466.98 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark).

REMARKS.--Estimated daily discharges: Feb. 7-10. Records good. Flow regulated by Hodges Village Reservoir (Reservoirs in Thames River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--23 years, 55.8 ft^3/s, 24.29 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 628 ft^3/s Jan. 28, 1978, gage height, 3.47 ft; no flow for part of July 17, 1968 (caused by unusual regulation); minimum daily discharge, 1.4 ft^3/s Sept. 14, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 183 ft^3/s Sept. 28, gage height, 2.26 ft; minimum, 0.77 ft^3/s Oct. 29; minimum daily, 1.8 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	1.8	11	15	30	10	48	37	17	30	39	77	56
2	26	10	13	32	11	42	49	17	35	33	163	41
3	17	9.7	12	40	13	39	57	27	34	27	158	30
4	9.3	6.8	19	39	13	35	50	60	30	22	107	23
5	8.0	7.5	22	34	13	38	47	66	29	18	61	19
6	6.3	12	23	29	13	52	42	59	35	16	35	16
7	5.0	12	36	27	13	51	38	59	29	14	19	15
8	4.5	9.1	31	26	12	46	42	59	26	13	4.8	15
9	4.3	7.7	24	22	12	52	60	53	24	11	37	15
10	3.9	8.3	21	20	12	53	61	45	21	10	24	31
11	5.0	10	18	18	12	48	56	42	20	10	15	40
12	5.8	47	22	17	13	57	48	36	17	9.2	13	37
13	3.3	52	24	16	49	135	43	32	13	8.4	10	29
14	12	34	25	16	80	152	39	29	17	8.1	8.8	21
15	30	22	25	16	77	114	35	25	18	12	8.8	17
16	47	18	23	14	65	85	35	20	17	15	8.3	14
17	51	17	22	14	53	70	34	19	24	12	7.4	12
18	48	15	22	14	47	59	32	20	36	10	6.8	9.7
19	43	14	19	14	41	55	29	27	39	9.5	6.1	8.5
20	43	21	26	14	38	49	26	31	36	7.7	6.1	8.1
21	42	20	28	13	35	49	25	31	28	7.2	6.1	7.8
22	39	17	39	14	32	50	24	62	21	6.7	5.5	7.4
23	44	11	61	15	37	47	26	100	16	6.7	5.1	6.8
24	39	10	56	14	48	45	26	99	15	5.9	4.3	6.2
25	26	9.9	49	13	59	42	25	80	20	4.9	5.1	13
26	20	9.3	44	13	65	40	25	58	24	6.8	17	47
27	20	9.5	36	12	63	39	25	42	24	17	28	23
28	17	10	29	12	57	35	23	34	26	13	21	109
29	18	12	30	11	---	34	20	34	37	9.0	15	181
30	20	17	35	11	---	34	19	35	41	7.7	11	161
31	13	---	33	10	---	31	---	32	---	7.0	42	---
TOTAL	672.2	469.8	882	590	993	1726	1098	1350	782	396.8	936.2	1019.5
MEAN	21.7	15.7	28.5	19.0	35.5	55.7	36.6	43.5	26.1	12.8	30.2	34.0
MAX	51	52	61	40	80	152	61	100	41	39	163	181
MIN	1.8	6.8	12	10	10	31	19	17	13	4.9	4.3	6.2
MEAN†	21.8	15.7	28.5	19.0	35.8	55.5	36.5	43.6	26.2	12.7	30.3	35.3
CFSM†	.70	.50	.91	.61	1.15	1.78	1.17	1.40	.84	.41	.97	1.13
IN†	.81	.56	1.05	.70	1.20	2.05	1.31	1.61	.94	.47	1.12	1.26

CAL YR 1984 TOTAL 25119.1 MEAN 68.6 MAX 365 MIN 1.6 MEAN† 68.5 CFSM† 2.20 IN† 29.91
WTR YR 1985 TOTAL 10915.5 MEAN 29.9 MAX 181 MIN 1.8 MEAN† 30.1 CFSM† .96 IN† 13.08

† Adjusted for change in contents in Hodges Village Reservoir.

01124500 LITTLE RIVER NEAR OXFORD, MASS.

LOCATION.--Lat 42°06'57", long 71°53'26", Worcester County, Hydrologic Unit 01100001, on left bank 0.6 mi upstream from mouth, 1.1 mi downstream from Buffumville Dam, and 1.5 mi west of Oxford.

DRAINAGE AREA.--26.0 mi^2.

PERIOD OF RECORD.--Discharge: July 1939 to current year. Prior to October 1977, published as "at Buffumville." Water-quality records: Water year 1973.

REVISED RECORDS.--WSP 1201: 1940, 1948. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 457.00 ft above National Geodetic Vertical Datum of 1929, (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Buffumville Lake since 1958 (Reservoirs in Thames River basin) and by other reservoirs upstream. July 1982 to about January 1983, flow affected by draining of Buffum Pond. Prior to 1958, flow regulated by mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 49.6 ft^3/s, 25.91 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,340 ft^3/s Aug. 19, 1955, gage height, 15.53 ft, from rating curve extended above 1,200 ft^3/s on basis of computation of peak flow over dam; minimum, 0.1 ft^3/s Sept. 25, 26, 1957. Maximum discharge since construction of Buffumville Dam in 1958, 429 ft^3/s Apr. 7, 1959, gage height, 5.04 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 126 ft^3/s Mar. 14, gage height, 3.93 ft; minimum, 3.4 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	24	10	12	28	12	54	37	18	23	17	27	28
2	34	10	13	30	12	46	43	17	22	17	60	36
3	28	9.7	14	31	12	41	48	24	22	15	79	35
4	27	9.2	16	31	12	37	48	41	20	15	67	31
5	26	11	16	32	12	42	46	57	20	13	50	26
6	24	12	21	32	12	50	42	59	20	12	37	24
7	21	12	24	32	12	53	38	59	20	11	28	22
8	17	11	25	32	12	54	45	55	20	9.8	27	20
9	14	10	23	29	12	56	55	47	19	9.0	24	19
10	12	9.9	22	27	11	58	61	38	18	8.5	21	26
11	11	14	21	25	11	55	57	33	17	7.6	18	32
12	9.4	23	21	23	13	73	49	29	15	6.7	18	35
13	8.3	26	21	22	27	117	42	26	15	6.7	15	33
14	8.2	26	21	20	45	126	38	23	14	6.4	13	28
15	8.0	25	22	20	64	124	35	21	13	9.1	12	24
16	7.8	22	21	18	68	111	33	20	13	8.9	10	20
17	7.4	20	20	18	61	88	31	20	16	8.7	8.6	16
18	7.3	18	19	18	52	77	29	23	17	8.0	7.2	13
19	7.1	16	20	17	44	69	27	27	17	7.2	6.7	11
20	7.2	14	21	17	39	65	26	29	16	6.6	6.1	9.9
21	7.1	13	22	17	36	62	24	30	15	5.9	5.5	9.2
22	7.2	12	31	17	33	57	24	29	14	6.0	4.7	8.3
23	12	11	39	15	36	53	26	36	13	5.4	4.1	7.5
24	11	11	44	15	44	49	26	40	13	4.9	3.7	8.0
25	10	10	44	14	59	45	25	36	13	4.2	5.5	9.6
26	12	9.8	39	14	69	41	24	30	12	6.9	8.6	9.7
27	12	9.5	34	14	68	37	23	25	12	7.5	9.8	14
28	12	9.5	31	13	61	35	22	22	14	7.3	10	19
29	12	11	29	13	---	33	20	22	15	9.2	9.8	31
30	12	12	29	12	---	33	19	21	17	8.3	11	31
31	12	---	28	12	---	31	---	20	---	8.7	21	---
TOTAL	428.0	417.6	763	658	949	1872	1063	977	495	277.5	628.3	636.2
MEAN	13.8	13.9	24.6	21.2	33.9	60.4	35.4	31.5	16.5	8.95	20.3	21.2
MAX	34	26	44	32	69	126	61	59	23	17	79	36
MIN	7.1	9.2	12	12	11	31	19	17	12	4.2	3.7	7.5
MEAN†	12.8	14.6	25.6	19.9	37.1	59.4	34.4	31.5	15.8	8.32	21.2	21.9
CFSM†	.49	.56	.98	.77	1.43	2.28	1.32	1.21	.61	.32	.82	.84
IN†	.57	.63	1.13	.88	1.49	2.64	1.48	1.40	.68	.37	.94	.94

CAL YR 1984 TOTAL 24519.5 MEAN 67.0 MAX 322 MIN 4.4 MEAN† 66.6 CFSM† 2.56 IN† 34.90
WTR YR 1985 TOTAL 9164.6 MEAN 25.1 MAX 126 MIN 3.7 MEAN† 25.2 CFSM† .97 IN† 13.14

† Adjusted for change in contents in Buffumville Lake.

RESERVOIRS IN THAMES RIVER BASIN

01123350 EAST BRIMFIELD LAKE.--Lat 42°06'32", long 72°07'35", Worcester County, Hydrologic Unit 01100001, on Quinebaug River, 0.7 mi southwest of Fiskdale, Mass., 1.2 mi east of East Brimfield. Completed in 1960 by U.S Army Corps of Engineers for storage of water for recreation, conservation, and flood control. Usable capacity, 1,400,000,000 ft^3, including 101,000,000 ft^3 storage in recreation and conservation pool. Records provided by U.S. Army Corps of Engineers.

01123550 WESTVILLE LAKE.--Lat 42°04'55", long 72°03'28", Worcester County, Hydrologic Unit 01100001, on Quinebaug River, 1.3 mi west of Southbridge, Mass. Completed in 1962 by U.S Army Corps of Engineers for storage of water for recreation and flood control. Usable capacity, 484,000,000 ft^3, including 4,400,000 ft^3 storage in recreation pool. Records provided by U.S. Army Corps of Engineers.

01124300 HODGES VILLAGE RESERVOIR.--Lat 42°07'09", long 71°52'51", Worcester County, Hydrologic Unit 01100001, on French River at Hodges Village, Mass. Completed in 1960 by U.S Army Corps of Engineers for storage of water for flood control. Usable capacity, 577,000,000 ft^3. Records provided by U.S. Army Corps of Engineers.

01124400 BUFFUMVILLE LAKE.--Lat 42°06'58", long 71°54'29", Worcester County, Hydrologic Unit 01100001, on Little River at Charlton, Mass., 2.2 mi west of Oxford. Completed in 1958 by U.S. Army Corps of Engineers for storage of water for recreation and flood control. Usable capacity, 553,000,000 ft^3, including 61,000,000 ft^3 storage in recreation pool. Records provided by U.S. Army Corps of Engineers.

MONTHEND USABLE CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

	East Brimfield Lake	Westville Lake	Hodges Village Reservoir	Buffumville Lake
Sept. 30, 1984	101.1	4.8	0.3	61.0
Oct. 31	104.4	4.9	.6	58.4
Nov. 30	104.4	4.9	.6	60.1
Dec. 31	106.0	5.1	.7	62.7
Jan. 31, 1985	104.4	4.6	.6	59.2
Feb. 28	111.0	5.7	1.5	67.1
Mar. 31	109.3	5.4	1.0	64.5
Apr. 30	109.3	5.4	.7	61.9
May 31	106.0	4.9	.8	61.9
June 30	107.7	5.2	1.2	60.1
July 31	107.7	5.4	1.0	58.4
Aug. 31	109.3	5.3	1.4	61.0
Sept. 30	116.0	10.8	4.9	62.7

01162000 MILLERS RIVER NEAR WINCHENDON, MASS.

LOCATION.--Lat 42°41'03", long 72°05'02", Worcester County, Hydrologic Unit 01080202, on right bank 10 ft downstream from Nolan Bridge, 0.3 mi downstream from Tarbell Brook, 2 mi west of Winchendon, and at mile 32.8.

DRAINAGE AREA.--81.8 mi^2.

PERIOD OF RECORD.--Discharge: June 1916 to current year. March to May 1917, monthly discharge only, published in WSP 1301.
Water-quality records: Water years 1957, 1965-66.

REVISED RECORDS.--WSP 451: 1916. WSP 1051: 1919, 1920-21(M), 1922-24, 1928(M), 1933-34. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Oct. 6, 1933. Datum of gage is 826.66 ft above National Geodetic Vertical Datum of 1929. Prior to July 27, 1916, nonrecording gage at bridge at same datum.

REMARKS.--Estimated daily discharges: Jan. 9, Feb. 1. Records good. Flow regulated by Lake Monomonac 6 mi upstream and other reservoirs and, prior to 1957, by powerplant. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--69 years, 144 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,500 ft^3/s Sept. 22, 1938, gage height, 21.55 ft, from floodmarks, from rating curve extended above 2,000 ft^3/s on basis of computation of peak flow over dam; practically no flow because of regulation Sept. 20, 1918, Jan. 14, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 503 ft^3/s Mar. 12, gage height, 6.59 ft; minimum daily, 10 ft^3/s July 23, 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	26	78	50	86	35	147	122	72	66	52	68	58
2	71	73	37	147	31	136	127	71	89	42	69	43
3	70	67	35	145	28	127	130	82	71	43	48	37
4	62	63	47	124	26	117	133	97	54	40	64	39
5	63	124	42	114	27	133	140	67	48	35	39	30
6	56	132	44	102	28	129	145	57	46	32	26	34
7	44	103	42	97	26	116	140	86	41	30	20	46
8	37	91	38	94	25	114	142	86	37	26	21	41
9	50	84	34	90	30	120	148	72	32	24	21	44
10	53	85	32	87	30	122	135	60	29	24	18	51
11	56	98	36	83	25	124	116	53	23	23	21	43
12	47	237	38	76	25	349	93	47	23	22	17	39
13	38	175	45	72	139	480	74	41	46	33	16	43
14	36	142	57	70	186	465	69	33	66	33	16	37
15	52	127	54	66	194	411	70	31	60	47	16	37
16	68	110	48	60	173	338	65	26	59	45	27	44
17	67	94	51	62	140	287	59	25	76	34	21	56
18	69	78	57	60	115	251	53	57	73	24	18	71
19	80	71	54	60	104	219	53	82	76	19	17	78
20	75	65	58	58	96	204	52	73	52	15	17	70
21	65	61	53	52	90	191	49	65	26	15	16	68
22	68	59	82	56	89	174	60	88	21	15	13	65
23	68	56	90	56	100	160	63	106	21	10	10	62
24	20	55	76	53	131	138	76	99	20	12	12	61
25	104	52	79	51	187	121	101	87	19	11	21	63
26	130	47	68	50	182	135	87	79	23	16	28	136
27	132	45	57	48	182	132	82	70	25	22	49	282
28	115	46	52	47	161	130	78	76	43	40	49	209
29	105	49	58	46	---	125	79	90	66	34	34	148
30	99	59	81	42	---	116	71	80	60	22	36	114
31	88	---	79	40	---	113	---	58	---	22	64	---
TOTAL	2114	2626	1674	2294	2605	5924	2812	2116	1391	862	912	2149
MEAN	68.2	87.5	54.0	74.0	93.0	191	93.7	68.3	46.4	27.8	29.4	71.6
MAX	132	237	90	147	194	480	148	106	89	52	69	282
MIN	20	45	32	40	25	113	49	25	19	10	10	30

CAL YR 1984 TOTAL 73077 MEAN 200 MAX 3400 MIN 11
WTR YR 1985 TOTAL 27479 MEAN 75.3 MAX 480 MIN 10

01162500 PRIEST BROOK NEAR WINCHENDON, MASS.

LOCATION.--Lat 42°40'57", long 72°06'56", Worcester County, Hydrologic Unit 01080202, on right bank 100 ft downstream from highway bridge, 3 mi upstream from mouth, and 3.5 mi west of Winchendon.

DRAINAGE AREA.--19.4 mi^2.

PERIOD OF RECORD.--Discharge: May 1916 to current year. Monthly discharge only October 1917 to July 1918 (published in WSP 1301) and September 1935 to September 1936.
Water-quality records: Water years 1965-66.

REVISED RECORDS.--WSP 451: 1916. WSP 871: Drainage area. WSP 1051: 1919, 1922-24. WSP 1301: 1917(M), 1919-24(M), 1926-27(M), 1929(M), 1931-35(M).

GAGE.--Water-stage recorder. Concrete control since September 1936. Datum of gage is 849.67 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 11, 1936, nonrecording gage on left bank at same datum.

REMARKS.--Estimated daily discharges: Dec. 23, 24, 26, 27, 31, Jan. 3-15, Feb. 28, Mar. 1, 4, 6, 7, 10, 11, 19. Records good except those for winter period, which are fair. Prior to 1962, occasional diurnal fluctuation at low flow by mill upstream; prior to 1953, regulation at low flow by mill and ponds. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--69 years, 32.6 ft^3/s, 22.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,000 ft^3/s Sept. 21, 1938, gage height, 9.90 ft, from rating curve extended above 620 ft^3/s on basis of contracted-opening measurements at gage heights 8.4 ft and 9.90 ft; minimum, 0.08 ft^3/s several times in September 1929.

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)
Mar. 13	1030	*161	*3.81				

Minimum discharge, 0.98 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	1.1	2.8	16	41	8.8	45	32	8.7	13	14	9.7	9.2
2	4.1	2.7	15	54	9.2	38	32	8.1	14	11	11	8.6
3	6.3	2.5	14	58	9.5	35	32	11	9.6	8.1	9.3	11
4	3.9	2.3	15	53	9.2	28	33	18	7.9	6.3	7.3	9.1
5	2.6	14	13	48	9.1	28	37	16	6.7	5.5	5.6	6.7
6	2.0	36	14	43	9.2	28	38	14	6.9	4.8	4.3	6.2
7	1.6	22	14	39	9.3	24	38	23	6.9	4.2	3.4	7.0
8	1.6	15	13	35	9.1	24	37	22	5.7	3.6	3.5	6.8
9	1.5	12	12	32	8.8	26	36	19	5.5	3.2	3.3	6.4
10	1.4	11	12	27	8.4	26	32	16	5.8	2.9	2.6	11
11	1.4	14	12	23	8.4	29	28	14	4.5	2.7	2.8	10
12	1.4	53	14	20	8.9	70	24	12	4.2	3.5	2.8	13
13	1.3	58	17	18	25	156	19	11	5.1	6.2	2.4	7.9
14	1.3	37	23	17	39	150	18	10	5.2	5.6	2.3	6.4
15	1.3	24	23	16	40	134	18	9.1	4.9	7.0	2.6	5.6
16	1.3	20	20	15	37	112	18	8.3	4.5	6.7	4.1	5.0
17	1.3	17	21	14	31	90	15	8.0	7.8	5.6	3.6	4.5
18	1.3	15	26	14	25	74	12	23	8.0	5.4	3.0	3.9
19	1.4	14	25	13	22	62	15	38	9.1	5.5	2.7	3.7
20	1.4	12	26	13	19	54	14	32	7.3	4.9	2.6	3.3
21	1.4	11	24	13	17	50	13	24	7.1	4.0	2.3	3.8
22	1.5	11	32	13	17	46	16	23	6.9	3.7	2.4	3.7
23	5.5	10	43	12	21	40	17	19	5.7	3.2	2.6	3.2
24	6.2	9.7	41	11	31	33	15	15	5.2	2.6	2.3	3.0
25	3.9	9.2	38	11	52	30	13	12	4.6	2.2	3.6	3.1
26	4.3	9.8	35	11	58	27	12	10	4.4	2.5	9.0	2.9
27	5.4	9.7	26	9.9	54	25	11	9.1	4.1	5.3	9.3	16
28	4.5	9.2	23	9.6	49	28	10	10	6.3	5.5	7.3	41
29	4.2	12	25	9.4	---	34	11	16	15	4.9	4.8	69
30	3.7	17	39	8.9	---	35	9.4	12	17	3.7	5.0	30
31	3.1	---	47	8.7	---	33	---	10	---	3.2	8.6	---
TOTAL	83.2	492.9	718	710.5	644.9	1614	655.4	481.3	218.9	157.5	146.1	321.0
MEAN	2.68	16.4	23.2	22.9	23.0	52.1	21.8	15.5	7.30	5.08	4.71	10.7
MAX	6.3	58	47	58	58	156	38	38	17	14	11	69
MIN	1.1	2.3	12	8.7	8.4	24	9.4	8.0	4.1	2.2	2.3	2.9
CFSM	.14	.85	1.20	1.18	1.19	2.69	1.12	.80	.38	.26	.24	.55
IN.	.16	.95	1.38	1.36	1.24	3.09	1.26	.92	.42	.30	.28	.62

CAL YR 1984 TOTAL 15711.28 MEAN 42.9 MAX 820 MIN .98 CFSM 2.21 IN. 30.13
WTR YR 1985 TOTAL 6243.7 MEAN 17.1 MAX 156 MIN 1.1 CFSM .88 IN. 11.97

01163200 OTTER RIVER AT OTTER RIVER, MASS.

LOCATION.--Lat 42°35'18", long 72°02'29", Worcester County, Hydrologic Unit 01080202, on right bank at upstream side of Turner Street Bridge, 0.2 mi upstream from Bailey Brook, 0.8 mi southeast of Otter River, and 2 mi northwest of Gardner.

DRAINAGE AREA.--34.1 mi^2.

PERIOD OF RECORD.--Discharge: December 1964 to current year.
Water-quality records: Water years 1965-66.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 900 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 29 to Dec. 4, Jan. 9 to Feb. 13, Feb. 15-17. 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.--20 years (water years 1966-85), 62.1 ft^3/s, 24.73 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 948 ft^3/s Mar. 7, 1979, gage height, 5.02 ft; minimum, 2.2 ft^3/s Aug. 13, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 217 ft^3/s Mar. 13, gage height, 2.51 ft; minimum, 7.1 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	8.9	20	30	46	13	45	43	22	57	31	68	63
2	35	20	28	59	14	40	48	22	69	23	74	46
3	40	20	26	61	13	36	50	31	52	19	51	40
4	29	18	27	49	13	30	53	49	36	17	31	35
5	21	29	24	41	12	34	55	46	28	14	22	31
6	17	45	25	35	12	34	60	40	27	14	18	32
7	16	39	28	31	13	32	57	43	24	12	15	36
8	14	30	25	30	13	32	60	43	22	11	18	34
9	13	27	22	27	14	39	67	40	21	10	21	30
10	13	25	21	25	14	42	61	32	20	11	21	35
11	13	29	24	23	15	44	59	30	17	10	25	35
12	12	81	28	21	16	115	53	26	18	9.4	39	31
13	12	87	32	20	105	213	47	23	19	13	25	36
14	12	66	41	19	84	194	44	21	18	12	19	39
15	11	46	42	19	71	141	44	20	16	21	17	27
16	11	41	36	18	61	93	46	18	16	23	60	19
17	11	36	36	18	49	83	43	17	21	20	72	16
18	12	30	40	18	49	69	40	22	19	16	53	15
19	13	28	41	19	35	60	38	33	22	14	34	14
20	13	27	50	18	31	58	37	33	22	13	27	15
21	12	23	45	17	28	59	36	33	18	11	23	14
22	12	20	55	16	28	56	43	69	16	11	20	13
23	44	19	67	16	33	49	47	69	14	9.6	18	12
24	42	18	60	15	48	45	41	50	14	8.5	16	11
25	31	18	56	15	74	43	37	35	14	8.2	26	12
26	30	17	48	15	78	40	33	27	14	11	56	14
27	32	18	38	14	68	37	30	22	15	53	64	59
28	27	18	34	14	54	37	28	25	26	52	50	131
29	25	25	39	13	---	41	27	40	41	33	35	112
30	23	33	55	13	---	43	24	37	40	22	35	62
31	21	---	54	13	---	41	---	28	---	19	65	---
TOTAL	625.9	953	1177	758	1058	1925	1351	1046	756	551.7	1118	1069
MEAN	20.2	31.8	38.0	24.5	37.8	62.1	45.0	33.7	25.2	17.8	36.1	35.6
MAX	44	87	67	61	105	213	67	69	69	53	74	131
MIN	8.9	17	21	13	12	30	24	17	14	8.2	15	11
CFSM	.59	.93	1.11	.72	1.11	1.82	1.32	.99	.74	.52	1.06	1.04
IN.	.68	1.04	1.28	.83	1.15	2.10	1.47	1.14	.82	.60	1.22	1.17

CAL YR 1984 TOTAL 27839.1 MEAN 76.1 MAX 758 MIN 6.3 CFSM 2.23 IN. 30.37
WTR YR 1985 TOTAL 12388.6 MEAN 33.9 MAX 213 MIN 8.2 CFSM .99 IN. 13.51

01164000 MILLERS RIVER AT SOUTH ROYALSTON, MASS.

LOCATION.--Lat 42°37'47", long 72°09'03", Worcester County, Hydrologic Unit 01080202, on right bank 500 ft downstream from bridge in South Royalston, 0.4 mi downstream from Beaver Brook, 1.7 mi downstream from Birch Hill Dam, and at mile 25.5.

DRAINAGE AREA.--189 mi^2.

PERIOD OF RECORD.--Discharge: July 1939 to current year.
Water-quality records: Water years 1957, 1965-66.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 792.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 7, 8, 27, 28, Jan. 6 to Feb. 24. Records good except those for winter period, which are poor. Flow regulated by Lake Monomonac and other reservoirs, by mills and powerplants prior to 1955, and at high flow by Birch Hill Reservoir since 1941 (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 326 ft^3/s, 23.42 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft^3/s Apr. 13, 1940, gage height, 8.40 ft; maximum gage height, at least 10.6 ft about Jan. 18, 1982 (ice jam); minimum daily discharge, 9.3 ft^3/s Aug. 4, 1956. Maximum discharge since construction of Birch Hill Reservoir in 1941, 2,830 ft^3/s June 25, 26, 1944, gage height, 7.57 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 21 or 22, 1938, reached a stage of 15.9 ft, from floodmarks, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,260 ft^3/s Apr. 6, gage height, 6.46 ft; maximmum gage height, 6.53 ft Jan. 12 (ice jam); minimum daily discharge, 39 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	41	138	167	280	84	360	167	148	215	158	162	230
2	136	134	140	357	80	328	133	147	327	124	268	178
3	199	121	122	400	74	302	104	165	263	102	205	153
4	160	113	128	342	72	274	85	249	184	97	152	132
5	128	184	131	320	72	266	207	222	140	85	118	102
6	118	340	129	290	73	330	1150	182	132	76	85	112
7	97	271	170	260	70	266	704	245	122	73	68	126
8	87	212	135	240	72	260	429	256	109	65	68	132
9	84	181	122	210	78	281	403	214	104	61	76	114
10	96	176	113	200	76	299	366	178	95	61	68	165
11	94	192	116	190	72	306	327	158	82	60	71	154
12	93	453	135	180	78	580	283	138	76	56	110	130
13	81	534	153	165	280	1060	239	122	88	71	88	129
14	74	419	200	160	450	1140	215	110	125	77	69	130
15	79	324	203	150	440	1040	215	99	115	113	63	118
16	96	269	179	145	390	771	213	92	110	128	139	101
17	102	244	177	140	340	672	200	87	158	105	173	100
18	98	202	208	140	270	608	175	132	163	82	141	104
19	109	176	206	135	230	541	170	234	160	66	106	120
20	114	161	230	130	215	495	168	216	144	60	86	112
21	102	147	219	125	200	451	161	184	94	53	74	107
22	97	137	259	125	200	413	174	233	76	50	64	107
23	184	135	344	120	230	384	199	263	71	46	58	99
24	143	130	307	120	300	352	182	244	69	40	52	98
25	150	125	296	115	453	311	218	197	69	39	75	105
26	209	117	268	110	480	254	199	166	67	46	159	114
27	225	112	225	110	455	188	183	146	73	173	193	101
28	207	111	190	115	398	206	174	143	100	175	189	265
29	186	135	210	105	---	220	172	212	188	142	135	593
30	176	167	287	93	---	227	164	198	190	92	116	569
31	158	---	296	89	---	229	---	158	---	73	202	---
TOTAL	3923	6160	6065	5661	6232	13414	7779	5538	3909	2649	3633	4800
MEAN	127	205	196	183	223	433	259	179	130	85.5	117	160
MAX	225	534	344	400	480	1140	1150	263	327	175	268	593
MIN	41	111	113	89	70	188	85	87	67	39	52	98
MEAN†	127	205	196	182	224	448	243	179	130	85.3	118	162
CFSM†	.67	1.08	1.04	.96	1.19	2.37	1.29	.95	.69	.45	.62	.86
IN†	.78	1.21	1.20	1.11	1.23	2.73	1.43	1.09	.77	.52	.72	.95

CAL YR 1984 TOTAL 163566 MEAN 447 MAX 2100 MIN 41 MEAN† 447 CFSM† 2.37 IN† 32.19
WTR YR 1985 TOTAL 69763 MEAN 191 MAX 1150 MIN 39 MEAN† 191 CFSM† 1.01 IN† 13.74

† Adjusted for change in contents in Birch Hill Reservoir.

01165000 EAST BRANCH TULLY RIVER NEAR ATHOL, MASS.

LOCATION.--Lat 42°38'32", long 72°13'34", Worcester County, Hydrologic Unit 01080202, on right bank 300 ft downstream from Tully Dam, 1.3 mi downstream from Lawrence Brook, 3.5 mi north of Athol, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--50.5 mi^2.

PERIOD OF RECORD.--Discharge: October 1915 to current year. October 1915 to May 1916 monthly discharge only, published in WSP 1301.
Water-quality records: Water years 1965-66.

REVISED RECORDS.--WSP 451: 1916. WSP 1051: 1916(M), 1928. WSP 1301: 1917-35(M), 1937(M).
WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 613.71 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark). Prior to Oct. 26, 1948, nonrecording gage at site 0.2 mi upstream at datum 14.40 ft higher.

REMARKS.--No estimated daily discharges. Records good except those above 100 ft^3/s, which are fair. Flow regulated by Tully Reservoir since 1948 (Reservoirs in Connecticut River basin). Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--70 years, 81.6 ft^3/s, 21.94 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,140 ft^3/s Sept. 21, 1938, gage height, 8.60 ft, from floodmarks, site and datum then in use, from rating curve extended above 1,500 ft^3/s on basis of contracted-opening measurement and computation of peak flow over dam; minimum, 0.01 ft^3/s Nov. 6-11, 1961; minimum daily, 0.01 ft^3/s Nov. 7-10, 1961. Maximum discharge since construction of Tully Reservoir in 1948, 828 ft^3/s Apr. 21, 1960, gage height, 5.38 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 472 ft^3/s Apr. 6, gage height, 4.33 ft; minimum, 1.0 ft^3/s Oct. 6, Nov. 1, 3, 5, 8; minimum daily, 6.0 ft^3/s Sept. 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	8.7	12	42	82	18	166	24	19	26	34	12	17
2	8.3	12	42	82	18	107	24	14	25	42	12	24
3	8.2	11	41	144	18	82	24	14	25	33	12	27
4	8.2	11	25	153	18	82	25	14	25	18	12	27
5	8.2	11	13	125	18	82	114	14	25	13	12	27
6	8.0	11	13	123	23	81	251	23	25	13	12	27
7	8.2	11	27	120	25	80	104	77	18	13	12	26
8	8.2	11	36	89	25	80	104	97	15	13	12	26
9	8.5	11	36	66	25	57	103	74	15	13	12	20
10	8.6	11	36	49	25	48	82	63	15	13	12	18
11	8.7	11	35	44	25	48	48	46	15	13	12	18
12	9.5	35	35	44	25	104	48	38	15	13	12	18
13	10	45	35	38	32	224	48	24	15	13	12	18
14	10	75	42	35	36	380	49	18	15	13	12	18
15	10	136	45	35	67	446	49	18	15	13	13	18
16	11	150	45	35	82	298	53	18	15	13	13	54
17	11	148	45	35	82	235	54	18	15	13	12	120
18	11	145	58	35	80	205	54	43	15	13	10	134
19	10	76	63	30	80	186	54	82	14	13	8.7	127
20	10	47	63	28	78	183	54	96	14	13	9.3	120
21	10	46	63	28	77	151	54	51	14	13	9.3	61
22	9.8	45	63	28	48	136	54	33	14	13	9.7	23
23	11	45	64	28	37	133	54	33	13	13	9.9	12
24	13	45	78	28	37	102	38	28	13	13	10	10
25	12	44	84	28	45	64	31	26	13	13	10	7.2
26	12	44	84	28	109	29	31	26	13	13	19	6.0
27	12	43	83	28	172	23	31	26	13	13	23	6.4
28	12	42	82	19	169	23	31	26	13	12	23	7.7
29	12	42	81	15	---	24	31	26	13	12	23	9.3
30	12	42	80	15	---	23	31	25	13	12	19	82
31	12	---	81	17	---	24	---	25	---	12	17	---
TOTAL	312.1	1418	1620	1654	1494	3906	1752	1135	494	474	406.9	1108.6
MEAN	10.1	47.3	52.3	53.4	53.4	126	58.4	36.6	16.5	15.3	13.1	37.0
MAX	13	150	84	153	172	446	251	97	26	42	23	134
MIN	8.0	11	13	15	18	23	24	14	13	12	8.7	6.0
MEAN†	10.7	44.2	51.7	50.4	56.3	137	58.4	38.5	18.0	10.6	15.8	21.5
CFSM†	.21	.88	1.02	1.00	1.11	2.71	1.16	.76	.36	.21	.31	.43
IN†	.24	.98	1.18	1.15	1.16	3.14	1.29	.88	.40	.24	.36	.47

CAL YR 1984 TOTAL 43656.3 MEAN 119 MAX 693 MIN 6.6 MEAN† 120 CFSM† 2.38 IN† 32.22
WTR YR 2985 TOTAL 15774.6 MEAN 43.2 MAX 446 MIN 6.0 MEAN† 42.8 CFSM† .85 IN† 11.50

† Adjusted for change in contents in Tully Reservoir.

01165300 LAKE ROHUNTA OUTLET NEAR ATHOL, MASS.

LOCATION.--Lat 42°34'13", long 72°16'22", Worcester County, Hydrologic Unit 01080202, on right bank 300 ft downstream from bridge on Daniel Shays Highway, 600 ft downstream from Lake Rohunta, and 2.8 mi southwest of Athol.

DRAINAGE AREA.--20.3 mi^2.

PERIOD OF RECORD.--Discharge: December 1964 to September 1985 (discontinued).
Water-quality records: Water years 1965-66.

GAGE.--Water-stage recorder. Datum of gage is 502.32 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1978, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Mar. 3-21. Records excellent except those for estimated daily discharges and those for period of doubtful gage-height record, Oct. 1 to Nov. 8, which are poor. Flow regulated by Lake Rohunta. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years (water years 1966-85), 36.4 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 760 ft^3/s May 31, 1984, gage height, 7.36 ft, from rating curve extended above 220 ft^3/s; minimum daily, 0.16 ft^3/s June 19, 25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 272 ft^3/s Nov. 6, gage height, 4.80 ft; minimum daily, 0.28 ft^3/s May 7.

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	9.1	17	32	13	36	33	.45	15	12	17	22
2	7.4	8.6	16	35	13	33	33	.44	18	12	21	21
3	9.0	7.5	28	36	14	31	33	.45	19	9.6	20	18
4	7.9	7.5	29	36	11	29	32	.39	17	8.5	17	16
5	6.9	19	23	34	13	27	33	.33	15	7.6	14	14
6	6.3	117	24	31	13	26	37	.29	14	6.6	11	17
7	6.1	95	24	28	13	25	35	.28	13	6.0	9.2	21
8	5.9	52	22	28	13	24	35	.40	12	5.0	11	21
9	7.5	38	20	26	13	23	35	3.2	12	4.5	11	20
10	11	30	18	24	13	23	35	4.2	15	5.9	9.7	22
11	15	26	17	22	13	25	34	5.1	15	5.1	8.5	20
12	17	39	17	21	13	50	30	6.5	13	4.8	7.5	19
13	17	45	18	20	18	90	28	8.3	13	6.2	7.1	16
14	15	44	18	19	24	100	27	7.7	11	6.0	6.2	13
15	13	45	20	19	30	92	27	8.6	9.3	6.4	6.4	12
16	11	38	20	19	31	80	25	7.9	9.0	6.4	15	11
17	9.4	31	22	18	29	70	22	7.5	9.3	5.6	20	9.6
18	8.0	27	22	18	27	62	22	9.0	9.7	5.2	20	8.5
19	7.4	22	22	17	26	56	21	10	8.6	5.1	19	7.8
20	6.5	20	25	17	25	52	21	11	7.8	4.2	17	7.2
21	6.1	17	26	17	23	48	19	11	6.9	3.6	14	6.5
22	6.6	15	34	17	22	45	6.7	12	6.5	3.2	12	6.0
23	11	14	37	16	22	42	.74	12	6.5	2.4	10	5.4
24	10	13	38	16	24	39	.82	11	6.8	2.4	8.8	5.6
25	9.4	13	37	16	29	35	.43	9.8	6.8	2.0	12	74
26	11	12	35	15	36	35	.44	8.8	6.5	3.5	18	77
27	11	13	32	15	39	34	.47	8.6	6.5	7.1	21	53
28	11	19	29	15	37	32	.48	10	8.7	7.4	21	56
29	11	21	28	14	---	31	.47	13	11	7.3	19	45
30	11	19	28	14	---	28	.47	14	12	6.6	18	19
31	9.3	---	30	13	---	29	---	13	---	7.4	22	---
TOTAL	296.9	876.7	776	668	597	1352	628.02	215.23	333.9	185.6	443.4	663.6
MEAN	9.58	29.2	25.0	21.5	21.3	43.6	20.9	6.94	11.1	5.99	14.3	22.1
MAX	17	117	38	36	39	100	37	14	19	12	22	77
MIN	2.2	7.5	16	13	11	23	.43	.28	6.5	2.0	6.2	5.4

CAL YR 1984 TOTAL 18519.3 MEAN 50.6 MAX 682 MIN 1.5
WTR YR 1985 TOTAL 7036.35 MEAN 19.3 MAX 117 MIN .28

01166500 MILLERS RIVER AT ERVING, MASS.

LOCATION.--Lat 42°35'51", long 72°26'19", Franklin County, Hydrologic Unit 01080202, on right bank 5 ft downstream from bridge at Farley, 0.6 mi upstream from Mormon Hollow Brook, 2.4 mi downstream from Erving, and 5.5 mi upstream from mouth.

DRAINAGE AREA.--372 mi^2.

PERIOD OF RECORD.--Discharge: August 1914 to June 1915 (twice-daily gage heights and corresponding discharge), July 1915 to current year.
Water-quality records: Water years 1953, 1965-66.

REVISED RECORDS.--WSP 641: 1920(M). WSP 781: 1928(M), 1933(M). WSP 1301: 1915(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 30, 1915, nonrecording gage, June 30, 1915, to Sept. 20, 1938, water-stage recorder, and Sept. 21 to Dec. 31, 1938, non- recording gage, at site 2.2 mi upstream at different datum. Jan. 1 to Mar. 29, 1939, nonrecording gage, and Mar. 30, 1939, to Sept. 12, 1941, water-stage recorder, at site 0.4 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 7 to Feb. 24, Aug. 13 to Sept. 12. Records good except those for estimated daily discharges, which are poor. Flow regulated by powerplants and by Lake Monomonac and other reservoirs; high flow regulated by Birch Hill Reservoir 22 mi upstream and Tully Reservoir (Reservoirs in Connecticut River basin); greater regulation by powerplants prior to 1966. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--71 years, 632 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft^3/s Sept. 22, 1938, gage height, 13.37 ft, from flood-marks, site and datum then in use, mean of two slope-area measurements; practically no flow at times during 1915 and 1916 because of regulation; minimum daily, 8 ft^3/s Sept. 6, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,360 ft^3/s Mar. 13, gage height, 5.06 ft; minimum daily, 53 ft^3/s Aug. 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	101	189	294	548	150	679	433	240	244	243	365	320
2	203	159	270	673	140	625	359	217	380	227	331	300
3	277	163	236	732	135	536	362	236	382	184	364	260
4	232	152	284	684	130	494	324	341	286	149	253	240
5	183	350	237	619	125	466	328	343	222	145	176	180
6	157	598	206	539	130	537	1310	301	204	116	159	200
7	149	553	236	470	125	487	1140	367	198	82	132	220
8	133	390	303	420	125	474	755	475	171	134	127	230
9	122	309	249	350	140	490	683	420	156	98	145	200
10	136	277	228	350	135	500	639	348	156	94	156	270
11	148	295	228	330	125	515	560	305	148	92	53	250
12	139	657	238	320	125	1360	483	253	144	81	144	228
13	100	798	278	300	400	2260	447	218	188	112	120	195
14	115	665	338	290	780	2050	408	188	147	179	110	207
15	144	587	369	270	800	1980	396	159	146	135	100	182
16	119	549	343	260	720	1620	392	149	163	234	200	177
17	120	500	336	230	600	1170	375	152	196	151	250	187
18	109	456	381	250	520	1120	348	324	259	143	210	257
19	156	407	417	230	450	977	338	456	230	109	170	268
20	121	306	458	240	390	914	334	426	230	82	150	257
21	124	266	446	240	360	860	317	387	177	96	130	245
22	160	250	499	240	350	772	306	370	138	86	110	210
23	250	238	612	230	380	691	324	361	104	70	100	113
24	241	236	576	210	500	674	309	348	126	65	90	153
25	182	224	566	210	758	600	291	303	128	64	130	170
26	238	216	533	200	794	521	295	257	130	104	200	231
27	267	210	474	200	814	413	278	213	118	356	290	494
28	257	209	486	190	744	405	252	233	142	277	280	188
29	291	250	457	180	---	429	259	310	261	234	220	651
30	234	292	539	160	---	429	251	308	297	176	200	731
31	211	---	566	160	---	418	---	259	---	113	270	---
TOTAL	5419	10751	11683	10325	10945	25466	13296	9267	5871	4431	5735	7814
MEAN	175	358	377	333	391	821	443	299	196	143	185	260
MAX	291	798	612	732	814	2260	1310	475	382	356	365	731
MIN	100	152	206	160	125	405	251	149	104	64	53	113

CAL YR 1984 TOTAL 334517 MEAN 914 MAX 6180 MIN 55
WTR YR 1985 TOTAL 121003 MEAN 332 MAX 2260 MIN 53

01168151 DEERFIELD RIVER NEAR ROWE, MASS.

LOCATION.--Lat 42°40'57", long 72°58'37", Franklin County, Hydrologic Unit 01080203, on left bank 400 ft downstream from Fife Brook, 600 ft downstream from Fife Brook Dam, 1.2 mi northeast of Hoosac Tunnel, and 4 mi west of Rowe.

DRAINAGE AREA.--254 mi^2.

PERIOD OF RECORD.--May 1974 to current year.

REVISED RECORDS.--WDR MA-RI-78: 1977.

GAGE.--Water-stage recorder. Datum of gage is 745.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated by Somerset and Harriman Reservoirs (Reservoirs in Connecticut River basin) and by several powerplants upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--11 years, 727 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,900 ft^3/s May 29, 1984, gage height, 14.73 ft, from floodmark in stilling well, from rating curve extended above 8,300 ft^3/s, on basis of slope-area measurement of peak flow and conveyance-slope study; maximum gage height, 14.79 ft Aug. 10, 1976; minimum daily discharge, 28 ft^3/s Nov. 14, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,340 ft^3/s Sept. 27, gage height, 7.63 ft; minimum daily, 71 ft^3/s Oct. 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	621	171	284	643	492	1030	728	89	167	600	870	191
2	493	77	215	1020	81	976	263	90	200	574	501	98
3	542	79	374	1040	218	369	169	91	394	626	278	320
4	147	79	326	1070	702	816	137	92	133	106	276	600
5	145	152	283	1010	636	1060	139	92	73	169	613	669
6	82	447	379	743	605	1020	508	204	73	107	561	748
7	80	285	702	784	664	1000	854	260	79	134	583	374
8	78	354	170	1070	767	998	525	213	98	361	647	186
9	188	127	186	1010	593	1010	553	204	76	336	609	744
10	148	75	708	1010	308	477	469	93	155	357	116	740
11	167	76	364	1020	809	664	494	87	206	365	232	683
12	103	675	631	1010	1050	1410	543	84	228	362	325	314
13	72	227	685	992	1030	1370	300	392	231	151	326	243
14	71	561	778	1010	1030	1060	290	201	297	102	566	81
15	161	605	792	1020	1010	1080	411	224	237	484	461	74
16	115	606	506	916	991	848	87	290	254	572	329	430
17	145	164	723	681	986	162	561	207	712	484	176	498
18	78	137	672	711	960	755	380	611	862	236	141	465
19	123	637	651	518	1020	999	198	86	545	178	346	519
20	178	796	680	576	913	1050	233	349	527	103	316	453
21	128	575	649	1060	1010	926	212	446	660	100	376	101
22	277	190	384	605	824	1040	289	436	202	341	134	78
23	128	175	340	736	83	1050	459	124	160	180	229	167
24	135	80	358	641	533	926	334	320	516	411	214	158
25	143	81	323	718	1150	996	343	176	470	380	97	609
26	190	221	732	325	1230	1200	370	86	464	641	421	611
27	124	214	763	309	1090	1200	237	82	447	257	420	1540
28	130	287	748	611	1000	1210	157	178	379	182	281	1470
29	209	326	1050	706	---	1250	217	287	178	777	150	854
30	191	308	1280	719	---	951	151	268	180	580	182	683
31	159	---	1090	717	---	980	---	264	---	686	184	---
TOTAL	5551	8787	17826	25001	21785	29883	10611	6626	9203	10942	10960	14701
MEAN	179	293	575	806	778	964	354	214	307	353	354	490
MAX	621	796	1280	1070	1230	1410	854	611	862	777	870	1540
MIN	71	75	170	309	81	162	87	82	73	100	97	74

CAL YR 1984 TOTAL 296746 MEAN 811 MAX 12000 MIN 71
WTR YR 1985 TOTAL 171876 MEAN 471 MAX 1540 MIN 71

01168500 DEERFIELD RIVER AT CHARLEMONT, MASS.

LOCATION.--Lat 42°37'33", long 72°51'20", Franklin County, Hydrologic Unit 01080203, on left bank 0.8 mi east of Charlemont, 2.5 mi downstream from Chickley River, and at mile 24.5.

DRAINAGE AREA.--361 mi^2.

PERIOD OF RECORD.--Discharge: June 1913 to current year.
Water-quality records: Water years 1954-55, 1958, 1967-69.

REVISED RECORDS.--WSP 781: 1915(M). WSP 1301: 1918(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 517.36 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Somerset Reservoir, since 1924 by Harriman Reservoir (Reservoir in Connecticut River basin), and by several powerplants upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--72 years, 896 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,300 ft^3/s Sept. 21, 1938, gage height, 20.17 ft, from floodmarks, from rating curve extended above 31,000 ft^3/s on basis of slope-area and contracted-opening measurements at gage heights 17.75 ft and 20.17 ft; minimum daily, 5 ft^3/s June 17, 1921.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,100 ft^3/s Sept. 27, gage height, 8.31 ft; minimum daily, 97 ft^3/s Oct. 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	544	187	448	995	550	1150	1020	181	223	658	937	167
2	579	158	330	1290	168	1120	564	174	172	584	621	216
3	565	116	492	1300	166	570	395	195	472	574	307	318
4	228	114	432	1170	858	894	424	210	182	230	288	433
5	184	246	362	1140	665	1110	452	191	119	193	511	650
6	118	543	438	889	588	1090	920	308	118	138	566	738
7	114	349	626	864	634	1070	1310	529	114	164	556	584
8	111	368	336	1110	776	1050	982	380	137	356	634	157
9	217	191	240	1070	660	1140	871	330	120	341	618	670
10	179	157	615	1020	308	619	736	211	178	352	245	757
11	193	144	589	1040	779	776	702	193	159	350	174	717
12	137	907	622	1040	1010	2910	714	178	318	359	358	489
13	100	398	675	1030	1350	2280	493	439	224	192	362	230
14	97	636	901	1030	1180	1530	382	282	331	130	517	166
15	180	562	892	1030	1100	1410	677	286	290	468	445	109
16	140	697	648	1030	1040	1240	308	304	226	609	354	401
17	170	280	781	694	1030	532	622	300	656	402	198	457
18	103	227	837	731	994	855	433	797	1030	346	150	463
19	104	594	746	605	1020	1200	467	380	503	194	341	450
20	205	735	858	598	943	1220	471	473	555	121	314	443
21	154	636	816	1080	1020	1140	359	508	647	114	360	138
22	341	301	616	665	998	1200	428	516	326	314	153	99
23	188	218	536	734	330	1220	561	217	173	200	190	178
24	190	157	501	704	892	1110	459	367	502	391	212	182
25	209	138	383	725	1790	1190	450	241	491	375	201	480
26	256	265	771	480	1590	1270	456	150	431	548	467	598
27	203	229	780	352	1350	1270	357	143	452	626	454	3220
28	168	319	792	594	1230	1430	201	247	434	207	310	2310
29	248	560	1410	722	---	1620	375	375	418	607	184	1130
30	217	484	1810	722	---	1310	248	324	217	582	201	939
31	219	---	1340	802	---	1180	---	306	---	632	264	---
TOTAL	6661	10916	21623	27256	25019	37706	16837	9735	10218	11357	11492	17889
MEAN	215	364	698	879	894	1216	561	314	341	366	371	596
MAX	579	907	1810	1300	1790	2910	1310	797	1030	658	937	3220
MIN	97	114	240	352	166	532	201	143	114	114	150	99

CAL YR 1984 TOTAL 396479 MEAN 1083 MAX 18000 MIN 97
WTR YR 1985 TOTAL 206709 MEAN 566 MAX 3220 MIN 97

01169000 NORTH RIVER AT SHATTUCKVILLE, MASS.

LOCATION.--Lat 42°38'18", long 72°43'32", Franklin County, Hydrologic Unit 01080203, on right bank in Shattuckville, 1.2 mi south of Griswoldville, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--89.0 mi^2.

PERIOD OF RECORD.--Discharge: October 1939 to current year. October and November 1939 monthly discharge only, published in WSP 1301.
Water-quality records: Water years 1957, 1967-69.

REVISED RECORDS.--WSP 1111: 1945(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 458.36 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 5-9, 18, 19, 21, 23-27, Jan. 4-31, Feb. 3-5, 7-13, 15-21, 28, Mar. 1, 6, 7, Sept. 28. Records good except those for winter period, which are fair. Diurnal fluctuation at times caused by mill upstream; because storage capacity is small, daily flows are not affected appreciably. Prior to 1950, greater regulation by mill. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 184 ft^3/s, 28.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft^3/s Oct. 15, 1955, gage height, 10.37 ft, from rating curve extended above 5,700 ft^3/s on basis of computation of flow over dam at gage height 9.62 ft; minimum daily, 5.1 ft^3/s Oct. 3, 1948.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 12	1445	2,950	6.45	Sept. 27	1730	*8,150	*8.98

Minimum discharge, 9.9 ft^3/s July 12; minimum daily, 12 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	16	29	90	220	49	185	235	86	55	62	58	64
2	53	28	72	446	51	187	206	80	51	47	38	41
3	55	26	62	264	50	172	188	96	46	40	25	32
4	42	25	62	180	50	107	197	112	42	35	20	28
5	34	76	49	160	50	126	279	94	41	32	18	24
6	27	90	45	130	49	145	527	101	48	28	16	26
7	24	53	45	115	49	130	488	181	44	27	15	43
8	25	41	52	97	48	132	348	123	41	28	53	40
9	29	36	53	80	47	161	286	100	46	22	38	39
10	27	40	53	79	47	151	234	91	45	21	24	106
11	24	50	60	78	46	150	213	83	40	21	19	65
12	22	198	69	77	48	1580	199	74	41	14	18	45
13	20	128	78	76	290	933	182	73	61	21	17	34
14	19	80	147	74	241	528	183	67	54	25	15	29
15	19	61	102	73	155	369	186	60	45	53	15	26
16	19	56	82	72	125	282	197	59	44	65	30	23
17	19	51	96	71	110	263	180	58	146	44	25	21
18	19	47	135	69	90	243	156	275	105	29	19	20
19	19	46	120	68	83	204	168	172	90	23	17	19
20	19	36	115	66	77	214	154	120	59	20	17	18
21	18	37	83	63	74	224	144	95	49	17	17	17
22	20	38	128	62	79	185	147	82	42	17	16	17
23	44	36	155	60	135	183	167	72	40	16	14	17
24	40	39	110	59	293	192	140	65	39	14	13	21
25	32	38	96	58	544	188	129	60	38	12	51	55
26	49	36	69	57	319	161	112	56	33	24	94	35
27	58	36	56	57	286	161	117	55	30	92	66	1940
28	42	36	67	56	220	296	109	66	43	40	44	650
29	40	169	318	53	---	431	106	86	142	25	47	231
30	38	148	502	51	---	336	94	63	97	20	38	152
31	32	---	256	50	---	258	---	55	---	20	88	---
TOTAL	944	1810	3427	3121	3705	8877	6071	2860	1697	954	985	3878
MEAN	30.5	60.3	111	101	132	286	202	92.3	56.6	30.8	31.8	129
MAX	58	198	502	446	544	1580	527	275	146	92	94	1940
MIN	16	25	45	50	46	107	94	55	30	12	13	17
CFSM	.34	.68	1.25	1.13	1.48	3.21	2.27	1.04	.64	.35	.36	1.45
IN.	.39	.76	1.43	1.30	1.55	3.71	2.54	1.20	.71	.40	.41	1.62

CAL YR 1984 TOTAL 97872 MEAN 267 MAX 5100 MIN 15 CFSM 3.00 IN. 40.91
WTR YR 1985 TOTAL 38329 MEAN 105 MAX 1940 MIN 12 CFSM 1.18 IN. 16.02

01169900 SOUTH RIVER NEAR CONWAY, MASS.

LOCATION.--Lat 42°32'31", long 72°41'39", Franklin County, Hydrologic Unit 01080203, on left bank at upstream side of Reeds Bridge just off Bardwell Road, 2.2 mi north of Conway, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--24.1 mi^2.

PERIOD OF RECORD.--Discharge: June 1966 to current year.
Water-quality records: Water years 1967-69.

REVISED RECORDS.--WDR MA-NH-RI-VT-73-1: 1968-70(P), 1971(M), 1972(P). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 460 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 7, 1970, at downstream side of bridge at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1-25, Nov. 20-23, 26, 27, Dec. 5-9, Dec. 22 to Jan. 1, Jan. 4 to Feb. 26, Feb. 28 to Mar. 8. Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation by small powerplant upstream since April 1982. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--19 years, 52.1 ft^3/s, 29.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,150 ft^3/s Sept. 27, 1985, gage height, 9.06 ft, minimum, 2.5 ft^3/s Sept. 12-14, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 660 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	1345	775	5.33	Sept. 27	1730	*4,150	*9.06

Minimum discharge, 2.7 ft^3/s Aug. 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	4.0	6.9	15	30	8.8	25	45	18	18	12	31	13
2	11	6.6	12	64	8.6	24	47	17	15	9.6	10	8.8
3	12	6.0	11	39	8.6	22	47	28	13	8.4	7.2	7.9
4	10	5.7	13	28	8.4	20	50	30	11	8.2	6.2	7.0
5	7.6	15	13	24	8.8	21	51	22	11	7.4	5.4	6.4
6	6.0	15	12	21	9.0	22	49	25	15	7.2	5.2	13
7	5.4	9.6	12	20	9.2	23	42	29	12	8.2	4.9	17
8	5.6	8.1	12	19	9.2	25	41	23	11	7.0	9.8	10
9	6.4	7.7	11	18	9.6	33	40	20	13	6.3	8.8	11
10	6.0	8.4	12	17	10	33	35	18	11	6.1	6.1	22
11	5.4	11	13	16	11	36	34	17	8.8	5.6	5.3	13
12	5.0	49	16	15	17	396	32	16	14	6.1	5.5	9.4
13	4.5	21	16	15	100	125	30	16	18	12	4.1	7.9
14	4.3	14	24	15	60	86	29	15	15	7.7	3.8	7.5
15	4.1	12	17	14	35	72	30	13	12	7.4	4.3	7.2
16	4.2	11	14	14	24	59	31	13	13	17	12	6.9
17	4.2	9.9	20	14	21	56	28	13	15	9.1	6.5	6.4
18	4.3	9.2	26	14	18	54	25	157	14	6.7	4.7	6.0
19	4.3	8.3	24	14	16	48	28	52	14	5.9	5.1	5.9
20	4.3	8.2	31	13	15	48	33	34	10	5.0	6.8	5.6
21	4.1	8.0	20	13	15	45	25	27	9.1	4.5	5.7	5.4
22	4.5	8.0	33	12	20	41	28	24	8.4	4.9	5.1	4.9
23	10	7.8	30	12	30	40	28	20	8.2	4.9	4.7	4.9
24	9.0	7.8	25	12	70	40	24	18	9.0	4.2	4.3	11
25	7.0	7.3	21	12	140	38	23	17	8.7	4.1	20	16
26	10	7.2	18	11	60	34	22	16	7.8	8.8	22	9.2
27	12	7.2	16	11	41	34	21	16	7.8	20	13	545
28	8.6	7.3	17	11	30	37	20	24	13	7.5	8.6	107
29	8.3	37	32	10	---	40	21	31	25	5.6	7.0	42
30	8.2	22	61	9.4	---	36	19	20	18	5.2	6.6	29
31	7.5	---	29	9.0	---	34	---	17	---	6.3	22	---
TOTAL	207.8	362.2	626	546.4	813.2	1647	978	806	378.8	238.9	271.7	966.3
MEAN	6.70	12.1	20.2	17.6	29.0	53.1	32.6	26.0	12.6	7.71	8.76	32.2
MAX	12	49	61	64	140	396	51	157	25	20	31	545
MIN	4.0	5.7	11	9.0	8.4	20	19	13	7.8	4.1	3.8	4.9
CFSM	.28	.50	.84	.73	1.20	2.20	1.35	1.08	.52	.32	.36	1.34
IN.	.32	.56	.97	.84	1.26	2.54	1.51	1.24	.58	.37	.42	1.49

CAL YR 1984 TOTAL 24076.0 MEAN 65.8 MAX 1330 MIN 4.0 CFSM 2.73 IN. 37.16
WTR YR 1985 TOTAL 7842.3 MEAN 21.5 MAX 545 MIN 3.8 CFSM .89 IN. 12.11

01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MASS.

LOCATION.--Lat 42°32'09", long 72°39'14", Franklin County, Hydrologic Unit 01080203, on right bank 0.4 mi downstream from South River, 1.2 mi west of West Deerfield, 2.5 mi west of Deerfield, and 9.2 mi upstream from mouth.

DRAINAGE AREA.--557 mi^2.

PERIOD OF RECORD.--Discharge: March to November 1904, January 1905, March to December 1905, October 1940 to current year, published as "at Deerfield" 1904-5.
Water-quality records: Water years 1953, 1967-70.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 155 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 16, 1905, nonrecording gage at site 1.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 9-12, 17-31, Feb. 2-11, Sept. 8-19. Records good except those for estimated daily discharges, which are fair. Flow regulated since 1913 by Somerset Reservoir, since 1924 by Harriman Reservoir (Reservoirs in Connecticut River basin), and by several powerplants upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--45 years (water years 1941-85), 1,286 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,500 ft^3/s Dec. 31, 1948, gage height, 15.3 ft; minimum daily, 28 ft^3/s July 29, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,500 ft^3/s Sept. 27, gage height, 10.55 ft; minimum daily, 182 ft^3/s July 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	552	252	561	1680	791	1570	1650	327	389	611	995	304
2	640	214	557	1910	310	1660	1040	348	334	867	654	324
3	715	226	583	1940	250	1020	847	396	519	623	511	281
4	286	249	626	1620	860	1200	777	493	358	390	364	397
5	220	346	536	1670	820	1580	907	319	262	294	515	887
6	210	750	579	1230	760	1450	1570	535	252	248	556	895
7	209	503	663	1240	780	1460	2370	915	201	227	679	823
8	217	286	731	1390	940	1430	1640	519	207	400	904	450
9	218	410	246	1370	720	1590	1270	642	214	426	678	760
10	266	234	664	1400	600	1290	1310	329	267	448	351	900
11	216	240	935	1300	920	1020	1140	393	237	322	271	760
12	202	1370	575	1300	1400	5730	1100	377	596	473	383	660
13	208	726	894	1300	1990	4140	1020	582	298	293	373	270
14	212	871	1310	1290	1770	2690	667	481	337	213	628	320
15	186	737	1160	1350	1450	2200	979	314	468	452	618	380
16	207	869	943	1300	1390	1910	858	376	345	702	430	460
17	210	482	1060	940	1320	1270	755	457	749	662	336	490
18	205	336	1210	880	1300	1120	906	1780	1370	430	224	510
19	204	625	1090	860	1280	1530	898	946	752	201	554	620
20	201	847	1180	760	1280	1690	746	749	668	202	333	531
21	199	799	1180	1100	1130	1730	637	686	705	182	351	241
22	226	608	858	1000	1320	1480	668	728	582	311	265	202
23	239	316	1000	960	862	1640	816	396	199	210	221	185
24	240	211	709	980	1190	1610	853	492	537	467	195	353
25	300	210	642	860	3010	1580	724	341	777	612	451	667
26	294	388	861	740	2530	1540	655	270	549	598	792	1020
27	343	328	1030	520	2070	1600	680	331	541	931	526	6040
28	409	233	980	620	1860	1850	497	407	626	283	297	4190
29	302	1070	1850	740	---	2480	610	589	625	618	282	1710
30	300	821	3000	960	---	2070	457	477	428	832	446	1200
31	282	---	2050	980	---	1640	---	459	---	883	317	---
TOTAL	8718	15557	30263	36190	34903	56770	29047	16454	14392	14411	14500	26830
MEAN	281	519	976	1167	1247	1831	968	531	480	465	468	894
MAX	715	1370	3000	1940	3010	5730	2370	1780	1370	931	995	6040
MIN	186	210	246	520	250	1020	457	270	199	182	195	185

CAL YR 1984 TOTAL 597485 MEAN 1632 MAX 26800 MIN 186
WTR YR 1985 TOTAL 298035 MEAN 817 MAX 6040 MIN 182

01170100 GREEN RIVER NEAR COLRAIN, MASS.

LOCATION.--Lat 42°42'12", long 72°40'16", Franklin County, Hydrologic Unit 01080203, on right bank 0.5 mi upstream from bridge on West Leyden Road and 2.5 mi northeast of Colrain.

DRAINAGE AREA.--41.4 mi^2.

PERIOD OF RECORD.--Discharge: October 1967 to current year.
Water-quality records: Water years 1968-69.

REVISED RECORDS.--WDR MA-NH-RI-VT-71-1: 1968(M), 1969.

GAGE.--Water-stage recorder. Elevation of gage is 435 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 5-9, 23-31, Jan. 5-24, Feb. 12-18, Feb. 23 to Mar. 10, June 13 to July 24. Records good except those for estimated daily discharges, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--18 years, 91.9 ft^3/s, 30.15 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,560 ft^3/s Dec. 21, 1973, gage height, 8.2 ft, from floodmarks, from rating curve extended above 1,500 ft^3/s on basis of slope area measurement of peak flow and conveyance-slope study; maximum gage height, 8.87 ft Jan. 27, 1976 (ice jam); minimum discharge, 1.9 ft^3/s Aug. 1, 1968, caused by unusual regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 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	1530	1,050	4.95	Sept. 27	1645	*2,760	*6.83

Minimum discharge, 5.7 ft^3/s July 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	6.9	12	32	86	22	82	112	43	24	28	25	20
2	40	12	25	187	24	70	97	41	22	21	15	14
3	26	11	22	114	24	60	89	49	24	18	11	12
4	20	11	23	65	23	50	97	53	19	16	8.7	11
5	14	26	21	60	21	56	127	46	17	14	7.8	9.5
6	13	31	18	56	23	60	219	47	21	13	6.8	10
7	11	19	18	52	23	58	217	66	18	13	6.8	21
8	11	16	20	45	23	62	163	50	16	12	18	18
9	10	14	21	39	23	74	134	44	19	11	13	22
10	9.9	17	22	36	21	70	110	41	20	9.6	9.2	44
11	9.9	20	25	36	21	67	100	38	16	9.6	7.8	25
12	9.4	75	28	35	23	562	92	35	17	6.6	6.8	17
13	9.1	45	30	34	120	354	85	34	25	9.4	6.2	14
14	8.7	28	55	34	100	217	85	31	23	12	5.7	13
15	8.7	22	40	33	70	165	90	27	21	24	6.9	12
16	8.3	20	31	33	58	132	92	26	20	30	15	11
17	8.3	19	34	32	50	125	83	27	64	20	10	9.1
18	8.3	17	48	32	40	113	73	149	46	14	7.6	8.8
19	8.3	17	46	31	36	97	74	87	40	11	7.3	8.3
20	8.3	15	40	30	33	104	71	58	26	9.6	8.1	8.1
21	8.3	15	32	29	31	106	66	44	22	8.4	7.3	7.5
22	9.0	15	51	28	37	88	69	38	19	7.8	6.5	7.2
23	17	18	63	27	66	88	90	32	18	7.4	6.0	6.9
24	14	17	50	27	150	91	71	29	17	6.8	5.8	9.9
25	13	16	42	27	220	87	63	27	17	6.0	24	19
26	21	18	31	27	140	76	57	24	15	11	35	14
27	20	16	25	25	115	76	54	25	14	27	23	571
28	16	14	34	24	90	135	51	29	19	13	15	234
29	15	54	110	24	---	194	50	39	64	9.7	12	85
30	14	52	200	23	---	156	47	27	43	8.1	11	53
31	12	---	110	22	---	121	---	24	---	8.8	24	---
TOTAL	408.4	682	1347	1353	1627	3796	2828	1330	746	415.8	372.3	1315.3
MEAN	13.2	22.7	43.5	43.6	58.1	122	94.3	42.9	24.9	13.4	12.0	43.8
MAX	40	75	200	187	220	562	219	149	64	30	35	571
MIN	6.9	11	18	22	21	50	47	24	14	6.0	5.7	6.9
CFSM	.32	.55	1.05	1.05	1.40	2.95	2.28	1.04	.60	.32	.29	1.06
IN.	.37	.61	1.21	1.22	1.46	3.41	2.54	1.20	.67	.37	.33	1.18

CAL YR 1984 TOTAL 40665.4 MEAN 111 MAX 1570 MIN 6.7 CFSM 2.68 IN. 36.54
WTR YR 1985 TOTAL 16220.8 MEAN 44.4 MAX 571 MIN 5.7 CFSM 1.07 IN. 14.58

01170500 CONNECTICUT RIVER AT MONTAGUE CITY, MASS.

LOCATION.--Lat 42°34'48", long 72°34'30", Franklin County, Hydrologic Unit 01080201, on left bank 75 ft downstream from railroad bridge at Montague City, 1,000 ft downstream from Deerfield River, and at mile 119.0.

DRAINAGE AREA.--7,860 mi^2.

PERIOD OF RECORD.--March 1904 to current year. Prior to October 1929, published as "at Sunderland." Records published for both sites October 1929 to September 1932.

REVISED RECORDS.--WSP 471: 1904-17. WSP 741: 1930-32. WSP 781: 1928(M). WSP 1051: 1905, 1909-10, 1912-14, 1920, 1922-23, 1925-26, 1928, drainage area at Sunderland. WSP 1301: 1905(M), 1914-19(M), 1930-31(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 99.87 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1917, nonrecording gage; Oct. 1, 1917, to Oct. 8, 1921, water-stage recorder used for low stages, nonrecording gage otherwise; and Oct. 9, 1921, to Sept. 30, 1932, water-stage recorder; all at site 9 mi downstream at datum 1.00 ft lower. Since Oct. 1, 1929, water-stage recorder at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 10-25. Records excellent except those for winter period, which are good. 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 43,400,000,000 ft^3. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE --81 years, 13,790 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 236,000 ft^3/s Mar. 19, 1936, gage height, 49.2 ft, from floodmarks; minimum daily, 215 ft^3/s Aug. 31, Sept. 1, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, **47,700** ft^3/s Mar. 13, gage height, 21.22 ft; minimum daily, 1,720 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	5540	3850	9270	28300	4900	18400	24100	15600	6600	7190	10400	2840
2	7280	3600	9900	26700	3480	18400	20800	13900	3930	9910	10900	2160
3	7310	3410	10500	29100	3220	18300	20200	13700	7330	6420	7650	4680
4	7560	2130	9530	18900	5610	16500	15200	12200	6850	3740	4580	5680
5	6310	6220	9420	14600	4280	13800	17400	10000	6480	4490	4040	7480
6	2340	8350	7770	11800	4750	9340	21200	11500	5050	4740	5030	9250
7	1880	8830	6050	10700	6440	13700	24800	16500	7100	4320	5170	20600
8	5030	10200	3490	10300	9840	13900	28700	16800	6400	5060	4650	9260
9	6180	7670	1980	9330	4570	15000	25400	18000	4750	5610	3730	8570
10	4980	3880	7010	7200	3070	15800	21500	17100	4250	6170	2720	11100
11	4980	4620	7850	8000	6980	15800	17900	15000	4010	6170	1970	7020
12	3750	7130	8130	6400	8640	29000	16600	12700	8280	7030	2440	6760
13	1830	13100	8270	5800	11500	43700	17600	12700	8040	6120	2930	5010
14	1760	13600	10400	7400	11800	41600	17600	12400	6870	5030	4720	2460
15	2350	12900	11700	8400	12600	34300	15400	11800	8330	5770	5980	1800
16	3320	13000	10500	8400	8840	25000	14900	12900	6460	6330	3050	3890
17	4280	8140	8760	7200	6990	21300	22700	10900	8340	6390	1930	4480
18	4770	5000	8800	7400	7920	16800	27900	12100	11100	6560	1740	4350
19	2180	7000	10600	4500	8130	17800	26300	19500	10600	5790	3080	4380
20	1720	7110	14500	3900	7940	16800	23500	22300	9350	2720	2680	5970
21	1720	7050	11100	9200	8510	16500	22900	19700	9060	2510	1920	2410
22	5780	3820	9830	8000	9030	17000	21100	17700	5730	5200	3250	2100
23	5050	6220	7140	7400	9280	16300	23300	16200	4450	4230	1870	4390
24	4400	6490	7380	7400	8710	11600	24900	12500	6250	3920	1800	6160
25	3270	5210	7280	7800	18500	11200	23500	10900	6320	4610	2230	5280
26	4330	5730	8250	5450	32500	14800	25500	3570	4290	5800	6050	10200
27	2300	5790	10200	4460	28600	15200	23600	4260	4480	5300	6930	16800
28	2610	4780	5580	6270	23800	15100	24100	7800	4550	1940	5360	19200
29	5550	5550	7730	6680	---	19200	22900	12300	5720	4160	3680	14300
30	3390	7540	25700	6110	---	29500	15800	12600	6700	5890	2980	14600
31	3860	---	29100	6720	---	26900	---	11200	---	6620	2640	---
TOTAL	127610	207920	303720	309820	280430	608540	647300	416330	197670	165740	128100	223180
MEAN	4116	6931	9797	9994	10020	19630	21580	13430	6589	5346	4132	7439
MAX	7560	13600	29100	29100	32500	43700	28700	22300	11100	9910	10900	20600
MIN	1720	2130	1980	3900	3070	9340	14900	3570	3930	1940	1740	1800

CAL YR 1984 TOTAL 6200280 MEAN 16940 MAX 138000 MIN 1720
WTR YR 1985 TOTAL 3616360 MEAN 9908 MAX 43700 MIN 1720

01171300 FORT RIVER NEAR AMHERST, MASS.

LOCATION.--Lat 42°21'30", long 72°30'23", Hampshire County, Hydrologic Unit 01080201, on left bank 400 ft downstream from Southeast Street Bridge, 600 ft downstream from Hop Brook, and 1.3 mi southeast of Amherst.
DRAINAGE AREA.--36.3 mi^2, excludes 5.16 mi^2, drained by Nurse and Dean Brooks, flow of which is diverted from basin.
PERIOD OF RECORD.--Discharge: June 1966 to current year.
Water-quality records: Water years 1971, 1973.
REVISED RECORDS.--WDR MA-RI-84-1: 1968-69(M), 1970(P), 1974-77(M), 1979(M), 1980(P), 1983(M), drainage area.
GAGE.--Water-stage recorder. Elevation of gage is 147 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 10, 1974, at site 400 ft upstream at same datum.
REMARKS.--Estimated daily discharges: Nov. 5, Jan. 8 to Feb. 17. Records good except those for winter period, which are poor. Doubtful gage-height record Jan. 29 to Mar. 21. Diversions upstream for municipal supply of Amherst. Several observations of water temperature and specific conductance were made during the year.
AVERAGE DISCHARGE.--19 years, 58.1 ft^3/s.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft^3/s, Mar. 6, 1979, gage height, 9.94 ft; minimum, 1.9 ft^3/s Sept. 3, 1966, Sept. 6, 7, 1981.
EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in March 1936 and September 1938 reached discharges of 2,360 ft^3/s and 1,640 ft^3/s, respectively, by computation of flow over dam 1.2 mi downstream.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 12	2330	*410	*3.92				

Minimum discharge, 5.1 ft^3/s July 26, 30, 31; minimum daily, 5.5 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	9.5	15	25	47	14	49	53	19	75	25	118	53
2	40	15	22	68	14	49	54	18	57	20	84	30
3	30	15	23	59	14	46	49	38	37	14	29	23
4	18	14	38	45	14	41	46	51	29	12	15	19
5	14	60	30	42	13	46	43	36	25	11	11	15
6	12	62	30	40	14	52	39	34	36	11	9.2	21
7	12	38	31	36	14	49	36	38	30	13	8.1	22
8	12	26	24	29	14	57	53	31	26	12	19	20
9	12	23	23	26	14	68	58	25	29	9.1	18	19
10	11	27	22	21	13	69	45	24	26	10	12	26
11	11	36	25	21	13	65	42	21	19	15	13	23
12	10	95	34	20	19	232	38	19	20	13	40	17
13	12	61	43	19	200	272	36	18	25	18	16	14
14	11	40	47	19	140	141	34	17	23	16	11	13
15	11	32	39	18	88	88	34	15	20	13	8.8	11
16	10	30	34	17	67	65	34	14	19	16	22	10
17	10	27	35	16	55	60	30	14	22	40	17	9.0
18	10	24	38	17	46	58	27	40	29	39	11	8.9
19	10	24	38	17	40	54	28	49	28	17	12	8.7
20	10	21	52	16	39	61	28	40	20	11	13	9.4
21	10	19	40	16	37	57	25	76	17	7.9	11	7.4
22	12	19	66	16	38	49	24	255	14	7.9	8.7	6.9
23	34	18	70	16	58	47	28	106	14	8.1	7.1	6.9
24	24	18	50	16	88	47	25	59	28	6.6	6.4	7.6
25	17	18	58	14	111	44	24	44	43	5.5	36	13
26	22	18	48	13	77	40	23	35	34	6.9	59	11
27	24	18	40	13	66	39	21	32	24	15	42	28
28	21	18	38	13	55	39	20	36	26	11	24	56
29	19	30	43	13	---	40	22	50	42	7.7	16	28
30	19	32	64	13	---	39	20	35	34	6.2	33	18
31	17	---	50	13	---	37	---	27	---	11	85	---
TOTAL	494.5	893	1220	749	1375	2100	1039	1316	871	428.9	815.3	554.8
MEAN	16.0	29.8	39.4	24.2	49.1	67.7	34.6	42.5	29.0	13.8	26.3	18.5
MAX	40	95	70	68	200	272	58	255	75	40	118	56
MIN	9.5	14	22	13	13	37	20	14	14	5.5	6.4	6.9

CAL YR 1984 TOTAL 28406.6 MEAN 77.6 MAX 1580 MIN 7.8
WTR YR 1985 TOTAL 11856.5 MEAN 32.5 MAX 272 MIN 5.5

01171500 MILL RIVER AT NORTHAMPTON, MASS.

LOCATION.--Lat 42°19'05", long 72°39'21", Hampshire County, Hydrologic Unit 01080201, on right bank at Northampton 3.5 mi upstream from mouth.

DRAINAGE AREA.--54.0 mi^2.

PERIOD OF RECORD.--Discharge: October 1938 to current year. October 1938 monthly discharge only, published in WSP 1301.
Water-quality records: Water years 1957-59, 1971, 1973.

REVISED RECORDS.--WSP 921: 1940. WSP 1231: 1940-42(M), 1944-45(M), 1948(M), 1949.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 6, 9-15, 18-26, Feb. 4, 13, 15-17. Records good except those for winter period, which are fair. Prior to 1956, flow regulated by mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 96.8 ft^3/s, 24.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,300 ft^3/s Aug. 19, 1955, gage height, 11.78 ft, from rating curve extended above 3,700 ft^3/s on basis of computation of peak flow over dam; minimum, 2.2 ft^3/s Oct. 1, 1950; minimum daily, 4.2 ft^3/s Aug. 21, 23, 24, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 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	1900	*1,830	*5.86	No other peak greater than base discharge.			

Minimum discharge, 7.0 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	9.8	16	35	53	21	58	78	31	42	32	98	26
2	33	15	28	88	22	58	83	30	34	25	33	19
3	23	14	31	67	21	55	83	54	28	21	20	16
4	17	13	42	47	21	46	77	65	25	20	16	15
5	15	51	33	48	23	48	73	43	26	17	14	14
6	13	40	32	41	23	55	70	48	31	16	13	16
7	12	28	33	43	23	48	66	60	28	19	13	23
8	13	23	30	37	24	54	69	46	26	18	17	18
9	12	21	27	33	27	73	65	38	31	15	21	19
10	11	23	27	33	29	73	57	35	28	14	14	24
11	11	31	29	32	27	77	57	32	23	13	12	22
12	10	121	34	31	38	478	56	31	28	14	12	17
13	9.6	58	39	31	260	287	49	32	42	16	11	14
14	9.4	37	49	30	123	187	48	30	33	15	9.8	18
15	10	30	41	29	58	146	50	26	26	16	9.6	17
16	10	28	34	26	47	116	52	25	25	26	12	15
17	10	26	35	25	43	108	48	26	34	32	12	14
18	10	23	47	25	38	102	44	158	36	23	9.5	14
19	11	23	49	29	37	88	46	101	34	18	9.1	28
20	9.9	22	63	28	35	88	44	64	25	13	11	30
21	9.5	21	48	27	34	83	41	49	21	9.6	11	18
22	13	19	70	27	37	74	43	58	19	11	9.9	12
23	29	19	75	27	49	72	46	41	18	9.9	9.5	12
24	21	19	50	26	84	71	41	35	28	9.1	8.4	17
25	17	18	51	26	139	68	39	30	51	8.9	37	27
26	23	18	39	25	90	63	38	27	29	14	41	19
27	25	18	41	25	80	62	35	27	22	33	26	365
28	22	18	39	24	65	66	35	40	27	18	18	242
29	23	50	42	24	---	69	38	69	53	13	15	70
30	21	52	75	23	---	64	34	40	48	11	23	46
31	18	---	61	21	---	60	---	32	---	25	40	---
TOTAL	481.2	895	1329	1051	1518	2997	1605	1423	921	545.5	605.8	1207
MEAN	15.5	29.8	42.9	33.9	54.2	96.7	53.5	45.9	30.7	17.6	19.5	40.2
MAX	33	121	75	88	260	478	83	158	53	33	98	365
MIN	9.4	13	27	21	21	46	34	25	18	8.9	8.4	12
CFSM	.29	.55	.79	.63	1.00	1.79	.99	.85	.57	.33	.36	.74
IN.	.33	.62	.92	.72	1.05	2.06	1.11	.98	.63	.38	.42	.83

CAL YR 1984 TOTAL 48626.1 MEAN 133 MAX 2500 MIN 7.1 CFSM 2.46 IN. 33.50
WTR YR 1985 TOTAL 14578.5 MEAN 39.9 MAX 478 MIN 8.4 CFSM .74 IN. 10.04

01172003 CONNECTICUT RIVER BELOW HOLYOKE DAM AT HOLYOKE, MASS.

LOCATION.--Lat 42°12'36", long 72°35'44", Hampden County, Hydrologic Unit 01080201, on right bank 2,200 ft downstream from dam of Holyoke Water Power Co. in Holyoke, and at mile 86.

DRAINAGE AREA.--8,309 mi^2.

PERIOD OF RECORD.--December 1983 to September 1985.

GAGE.--Water-stage recorder. Datum of gage is 43.28 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 8 to Feb. 12, 1985. Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants, by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs (Reservoirs in Connecticut River basin), and other reservoirs, combined usable capacity, about 44 billion ft^3. Records do not include water diverted around gage by Holyoke Water Power Co. for industrial use. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 244,000 ft^3/s Mar. 20, 1936, gage height, 35.0 ft, from floodmarks.

EXTREMES FOR CURRENT PERIOD.--December 1983 to September 1984: Maximum discharge during period, 153,000 ft^3/s June 1, gage height, 25.62 ft; minimum daily, 519 ft^3/s Sept. 30.
Water year 1985: Maximum discharge, 42,600 ft^3/s Mar. 14, gage height, 11.71 ft; minimum daily, 582 ft^3/s Oct. 17.

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			---	13100	4300	20700	15700	18900	145000	5150	3970	2850
2			---	12200	4200	18800	14000	19000	125000	4060	3890	1710
3			---	11700	4700	15000	18100	19000	95000	4950	3920	1680
4			---	11500	5000	14200	24200	20700	80000	5000	3040	2060
5			---	10500	6350	14000	27900	31700	60000	4670	1960	1980
6			---	10000	8670	14600	74800	31400	45000	6760	2500	1930
7			---	9500	8520	10400	90100	24700	40000	12100	5700	1790
8			---	8790	7800	9140	88900	21200	37000	26700	3700	1700
9			---	8500	7850	8990	79700	23000	45000	20500	3980	1700
10			---	8000	6930	6710	67700	23100	37000	19800	3900	1980
11			---	7600	8300	6470	52900	23100	32000	14500	2110	2380
12			---	7300	8600	6180	39000	21700	26000	15200	2020	3080
13			21400	6900	7230	7180	36700	22300	23000	14100	3320	2230
14			55800	6600	9020	6630	41000	29900	19700	10400	3170	2020
15			92000	6270	10700	9970	47200	40500	14600	8710	3970	1190
16			93800	6000	32600	9710	53500	38400	11700	5010	3490	843
17			87400	5700	50700	7820	64100	28200	10200	6760	2080	752
18			71600	5300	50000	10700	70200	23500	6460	8260	1800	714
19			52400	5000	47800	10500	69200	21900	6760	9870	1690	661
20			36800	4600	44100	10700	61700	15900	10200	11100	2070	699
21			22900	4300	40900	11700	56800	13300	10400	8190	2220	752
22			15400	4200	35200	23900	42100	17800	6420	7260	2240	714
23			14500	3830	30900	35700	29500	15600	4230	5450	2570	661
24			12900	3700	27300	32100	28400	17300	4780	8020	2920	745
25			11100	4570	31700	27600	30000	13100	7800	5550	2360	1160
26			14300	6060	39200	22000	32300	14800	5880	3970	1740	1050
27			13400	6270	35900	21100	30600	15700	6410	3160	1920	555
28			11400	5030	31300	20700	27900	12900	5210	2960	2530	592
29			12300	4800	29000	19800	26300	26700	6960	2540	2530	632
30			11500	4600	---	17400	21700	99100	5400	2530	2090	519
31			12700	4400	---	15400	---	136000	---	3210	2710	---
TOTAL			---	216820	634770	465800	1362200	880400	933110	266440	88110	41329
MEAN			---	6994	21890	15030	45410	28400	31100	8595	2842	1378
MAX			---	13100	50700	35700	90100	136000	145000	26700	5700	3080
MIN			---	3700	4200	6180	14000	12900	4230	2530	1690	519

01172003 CONNECTICUT RIVER BELOW HOLYOKE DAM AT HOLYOKE, MASS.--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	1830	914	6030	23500	3010	15900	18800	9850	15500	3570	5100	2100
2	2980	976	5880	21400	1390	10700	17100	8840	14600	6660	5020	1810
3	3490	812	7090	23600	1050	13200	13700	7760	14800	5270	4830	2580
4	3880	1250	5630	16800	1180	10700	12100	8430	12300	3580	3910	2940
5	2770	1520	5170	9730	1920	10500	9450	8420	10000	2830	3000	4340
6	1700	3810	3530	7340	1710	4260	13900	5360	8740	3510	3100	4860
7	669	4300	3290	6450	1940	7620	16200	8340	9100	3240	3420	9710
8	613	4340	1930	5300	3430	8260	21500	9880	8970	3340	3700	7840
9	3040	4220	1450	4700	4150	10000	21600	12000	8890	4060	2680	4640
10	1580	2220	1900	4090	1440	9190	16900	10700	11100	4160	2380	4950
11	1730	1890	3690	3680	1350	9810	13400	10500	9680	4540	2270	4510
12	1580	3230	4160	3500	2960	14100	10800	8540	8280	3310	1690	3700
13	692	5380	5110	3360	6300	38300	10700	7540	5750	3700	1910	3230
14	602	7990	5040	3280	7630	39600	11500	7040	4340	3690	1910	2250
15	584	8990	7590	4430	7660	33400	10800	8080	4420	3520	2470	1820
16	592	8130	6390	4520	6370	23400	8930	8100	5010	4470	3120	2470
17	582	6360	4740	4180	3560	17500	11600	8120	5700	4410	2080	3230
18	1650	2670	4340	3640	3270	13000	20200	5770	6260	4260	1930	3350
19	909	4220	6050	3360	3810	11400	20900	10600	5410	4220	1800	2980
20	623	3610	7970	1850	4010	10900	17600	15500	3900	2740	1940	2480
21	613	3550	6940	2570	3670	12100	17400	13700	2610	2130	1860	3180
22	1710	2730	7160	4780	4260	13200	15400	12300	2440	2490	1820	1760
23	2620	3130	5150	4280	5640	12200	15200	11000	2530	3270	1860	2570
24	1730	2920	4610	3640	5650	8620	18600	7930	2340	2970	1550	2800
25	1980	3040	4190	4180	8390	5710	17900	6690	1360	2950	1700	2810
26	802	3170	5180	3610	20600	9350	18600	5180	1440	3280	2420	5090
27	1500	2730	6610	2250	25500	9980	17500	4810	1310	3710	4280	5890
28	970	2960	4520	2680	19600	9560	20500	5040	1070	2640	2800	15000
29	1080	1940	2870	2990	---	9840	19000	7630	1390	2250	3030	9640
30	829	3200	11900	2750	---	19500	11700	10900	3070	3030	2600	8430
31	941	---	23300	2420	---	22500	---	13200	---	4120	2080	---
TOTAL	46871	106202	179410	194860	161450	444300	469480	277750	192310	111920	84260	132960
MEAN	1512	3540	5787	6286	5766	14330	15650	8960	6410	3610	2718	4432
MAX	3880	8990	23300	23600	25500	39600	21600	15500	15500	6660	5100	15000
MIN	582	812	1450	1850	1050	4260	8930	4810	1070	2130	1550	1760

CAL YR 1984 TOTAL 5221462 MEAN 14270 MAX 145000 MIN 519
WTR YR 1985 TOTAL 2401773 MEAN 6580 MAX 39600 MIN 582

01172500 WARE RIVER NEAR BARRE, MASS.

LOCATION.--Lat 42°25'35", long 72°01'30", Worcester County, Hydrologic Unit 01080204, on left bank 700 ft downstream from Barre Falls Reservoir, 1.6 mi upstream from Burnshirt River, 4 mi east of Barre, and at mile 33.3.

DRAINAGE AREA.--55.1 mi^2.

PERIOD OF RECORD.--Discharge: July 1946 to current year.
Water-quality records: Water year 1957.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 745 ft above Naitional Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Prior to August 1955, slight regulation at low flow at times by Long Pond. Flow regulated by Barre Falls Reservoir (Reservoirs in Connecticut River basin) since 1958. Diversion at times since 1955 from 6.5 mi^2 upstream of station for municipal supply of Fitchburg. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--39 years, 93.2 ft^3/s, 22.97 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft^3/s Oct. 16, 1955, gage height, 6.31 ft; minimum, 0.21 ft^3/s Aug. 18, 1980, Oct. 22, 1984; minimum daily, 0.5 ft^3/s Sept. 11, 1963. Maximum discharge since construction of Barre Falls Reservoir in 1958, 1,230 ft^3/s Mar. 14, 1979, gage height, 5.62 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 331 ft^3/s Mar. 14, gage height, 4.16 ft; minimum, 0.21 ft^3/s Oct. 22; minimum daily, 2.2 ft^3/s Oct. 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	2.5	20	24	66	17	103	80	41	68	50	41	157
2	19	15	28	66	17	89	90	38	81	38	101	116
3	33	12	27	79	17	89	94	53	62	30	62	82
4	28	11	27	84	17	87	95	99	47	28	35	60
5	20	11	27	83	17	86	100	92	40	23	25	52
6	15	12	27	59	17	86	99	83	43	19	19	48
7	12	12	28	48	17	70	92	86	42	18	16	54
8	10	12	28	48	17	64	103	79	35	16	20	53
9	9.4	12	28	38	18	66	132	65	34	14	23	44
10	8.7	12	28	33	18	67	133	54	31	12	19	51
11	7.7	12	28	28	18	85	112	48	28	12	16	61
12	7.1	19	27	25	18	107	97	43	30	9.8	13	52
13	6.6	62	33	25	18	225	87	40	34	13	12	40
14	6.4	71	67	25	62	314	80	38	33	14	12	33
15	6.2	63	84	25	117	266	77	35	27	14	13	27
16	5.7	52	83	25	135	194	75	32	25	15	67	25
17	5.3	46	68	25	133	148	73	30	39	16	90	22
18	5.3	45	52	25	129	134	64	36	50	13	58	18
19	5.3	33	49	25	101	134	60	48	48	11	37	19
20	5.3	27	49	25	79	131	57	48	38	5.9	25	19
21	5.2	27	49	25	59	131	55	51	30	4.8	19	16
22	3.1	26	50	25	51	129	55	121	24	4.8	15	13
23	3.0	16	50	25	52	125	68	121	22	4.3	12	12
24	2.6	12	51	25	74	121	64	89	22	3.5	9.9	13
25	2.2	12	76	25	104	99	57	67	23	2.9	16	28
26	7.1	12	86	25	123	87	52	55	23	4.2	48	33
27	21	13	84	25	126	80	41	50	27	9.8	64	19
28	25	13	64	19	125	77	40	53	43	9.6	49	146
29	25	13	51	16	---	78	44	78	67	8.0	35	215
30	111	13	62	17	---	77	45	69	64	6.4	49	147
31	28	---	67	17	---	73	---	52	---	7.0	144	---
TOTAL	451.7	716	1502	1101	1696	3622	2321	1894	1180	437.0	1164.9	1675
MEAN	14.6	23.9	48.5	35.5	60.6	117	77.4	61.1	39.3	14.1	37.6	55.8
MAX	111	71	86	84	135	314	133	121	81	50	144	215
MIN	2.2	11	24	16	17	64	40	30	22	2.9	9.9	12
MEAN†	14.9	33.2	48.5	34.1	62.2	108	77.2	61.2	39.3	13.9	38.2	55.6
CFSM†	.27	.60	.88	.62	1.13	1.96	1.40	1.11	.71	.25	.69	1.01
IN†	.31	.67	1.01	.71	1.18	2.26	1.56	1.28	.80	.29	.80	1.13

CAL YR 1984 TOTAL 43811.6 MEAN 120 MAX 799 MIN 2.1 MEAN† 119 CFSM† 2.16 IN† 29.46
WTR YR 1985 TOTAL 17760.6 MEAN 48.7 MAX 314 MIN 2.2 MEAN† 48.7 CFSM† .88 IN† 12.01

† Adjusted for change in contents in Barre Falls Reservoir.

01172680 NATTY POND BROOK TEMPLETON ROAD (DS) NEAR HUBBARDSTON, MASS.

LOCATION.--Lat 42°29'44", long 72°01'24", Worcester County, Hydrologic Unit 01080204, on right bank at upstream side of culvert on New Templeton Road, 1.7 mi northwest of Hubbardston.

DRAINAGE AREA.--1.63 mi^2.

PERIOD OF RECORD.--Water year 1984 (discharge measurements only), October 1984 to September 1985.

GAGE.--Water-stage recorder. Datum of gage is 922.13 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October to September, 15 ft^3/s Mar. 12, gage height, 1.47 ft; minimum, 0.29 ft^3/s Oct. 25, 26, Nov. 1, 4.

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	.67	1.0	.35	1.4	2.1	1.6	6.2	1.5	5.6	1.8
2	---	.32	.61	1.7	.35	1.4	2.3	1.6	3.2	1.2	1.3	1.3
3	---	.32	.52	1.5	.38	1.3	2.6	2.9	2.3	1.0	.85	1.2
4	---	.30	.56	.97	.38	1.1	2.8	2.9	2.0	1.0	.70	.97
5	---	.94	.56	.92	.38	1.2	3.2	2.3	1.8	.96	.62	.88
6	---	.95	.63	.83	.38	1.3	3.0	2.4	2.0	.79	.55	1.5
7	---	.56	.72	.83	.38	1.3	2.5	2.7	1.9	.78	.52	2.3
8	---	.45	.64	.82	.39	1.3	3.1	2.6	1.7	.77	1.3	1.4
9	---	.43	.61	.71	.41	1.6	3.7	2.3	1.7	.72	.89	1.1
10	---	.43	.56	.61	.41	1.6	2.8	2.3	1.6	.69	.57	2.6
11	---	.92	.58	.60	.41	1.7	2.6	2.1	1.4	.68	.63	1.8
12	---	3.7	.66	.57	.56	9.6	2.5	1.9	1.9	.61	.95	1.1
13	---	1.2	.93	.53	4.7	7.5	2.4	1.9	2.3	.95	.57	.97
14	---	.78	1.3	.52	3.3	4.4	2.3	1.9	2.0	.78	.51	.86
15	---	.61	.91	.52	1.8	3.6	2.2	1.8	1.7	.87	.76	.72
16	---	.60	.74	.48	1.4	3.1	2.2	1.7	1.7	.88	8.9	.69
17	---	.50	.93	.41	1.2	3.0	2.1	1.7	3.1	.76	1.9	.69
18	---	.47	1.0	.41	1.1	2.8	2.0	2.9	2.4	.60	1.1	.68
19	---	.43	.97	.41	1.0	2.6	2.0	2.7	2.1	.60	.85	.60
20	---	.41	1.4	.41	1.0	3.0	2.0	2.1	1.7	.59	.82	.60
21	---	.41	.91	.38	.99	3.4	2.0	2.7	1.4	.55	.75	.59
22	---	.41	1.7	.38	.99	2.7	2.1	7.3	1.3	.56	.64	.48
23	1.7	.41	1.6	.38	1.2	2.6	2.3	3.1	1.1	.51	.61	.48
24	.83	.41	1.1	.38	2.7	2.5	2.0	2.4	1.3	.46	.56	.62
25	.42	.41	1.1	.38	3.5	2.5	2.0	2.0	1.5	.41	2.4	.98
26	.57	.41	.91	.38	2.0	2.2	1.9	1.9	1.4	1.2	3.3	.69
27	.61	.41	.79	.38	1.9	2.2	1.7	1.9	1.5	2.5	1.8	4.1
28	.46	.41	.78	.40	1.6	2.2	1.7	2.7	2.9	.84	1.1	4.8
29	.48	1.0	1.2	.41	---	2.2	1.7	3.4	2.8	.65	.79	1.6
30	.43	.95	1.8	.39	---	2.2	1.7	2.1	1.9	.54	2.6	1.2
31	.35	---	1.1	.36	---	2.2	---	1.9	---	1.1	4.5	---
TOTAL	---	19.88	28.49	18.97	35.16	81.7	69.5	75.7	61.8	26.05	48.94	39.30
MEAN	---	.66	.92	.61	1.26	2.64	2.32	2.44	2.06	.84	1.58	1.31
MAX	---	3.7	1.8	1.7	4.7	9.6	3.7	7.3	6.2	2.5	8.9	4.8
MIN	---	.30	.52	.36	.35	1.1	1.7	1.6	1.1	.41	.51	.48
CFSM	---	.40	.56	.37	.77	1.62	1.42	1.50	1.26	.52	.97	.80
IN.	---	.45	.65	.43	.80	1.86	1.59	1.73	1.41	.59	1.12	.90

01172800 NATTY POND BROOK NEAR HUBBARDSTON, MASS.

LOCATION.--Lat 42°27'06", long 72°01'48", Worcester County, Hydrologic Unit 01080204, on left bank at upstream side of bridge on Hale Road, 0.2 mi southwest of Hubbardston.

DRAINAGE AREA.--5.48 mi^2

PERIOD OF RECORD.--Water year 1984 (discharge measurements only), November 1984 to September 1985.

GAGE.--Water-stage recorder. Datum of gage is 865.37 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period November to September, 33 ft^3/s Mar. 13, gage height, 2.25 ft; minimum, 0.76 ft^3/s Sept. 22, 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		1.5	3.0	5.1	2.0	6.2	7.5	2.5	12	4.8	10	16
2		1.5	2.5	7.7	2.1	5.8	8.3	2.0	11	3.7	8.1	11
3		1.4	2.2	7.2	2.1	5.4	8.8	4.8	8.5	3.5	6.1	8.3
4		1.4	2.6	5.4	2.1	4.6	8.8	7.0	6.5	3.3	4.2	5.0
5		2.0	2.3	4.5	2.0	5.7	9.5	6.0	5.6	2.6	2.9	3.6
6		2.6	2.9	3.8	2.1	6.2	9.3	6.4	6.3	2.3	2.3	5.0
7		2.6	3.2	3.6	2.1	5.1	7.3	6.7	5.2	2.2	1.9	6.8
8		2.1	2.7	3.6	2.0	5.4	9.7	5.8	4.7	1.9	3.3	6.2
9		1.8	2.3	3.2	2.2	6.9	11	4.5	4.5	1.7	3.8	5.8
10		1.7	2.1	3.0	2.1	7.5	10	3.8	3.8	1.7	2.7	7.5
11		2.9	2.3	3.0	2.0	7.6	8.2	3.2	3.3	1.4	2.2	8.0
12		9.9	2.7	2.7	2.6	21	7.0	3.1	3.2	1.3	2.1	6.2
13		8.6	3.5	2.6	11	31	6.5	3.0	3.7	2.0	2.1	4.9
14		6.3	4.2	2.6	10	29	6.2	2.8	4.0	1.8	1.8	3.5
15		4.2	4.0	2.6	8.8	19	6.3	2.7	3.3	1.7	1.9	2.5
16		3.5	3.4	2.5	6.6	13	6.6	2.5	3.5	2.0	18	1.8
17		2.8	4.0	2.2	5.1	11	5.9	2.6	6.0	2.0	14	1.5
18		2.3	4.3	2.2	4.6	10	4.8	4.6	6.4	1.8	9.1	1.1
19		2.0	4.5	2.2	4.4	9.6	4.9	5.9	5.6	1.6	5.6	.91
20		1.8	5.5	2.4	4.1	10	5.1	5.4	4.2	1.4	4.3	.84
21		1.6	4.5	2.5	3.7	11	4.8	6.1	3.4	1.5	3.6	.87
22		1.4	6.8	2.4	4.0	9.7	4.8	15	2.8	1.1	3.3	.80
23		1.4	7.4	2.3	5.1	8.2	5.2	13	2.6	1.1	2.4	.78
24		1.4	5.9	2.3	8.0	7.8	5.4	9.2	2.7	.92	2.2	.97
25		1.3	5.4	2.2	13	7.6	5.5	6.4	2.9	1.3	7.8	1.9
26		1.5	4.5	2.2	11	6.8	4.9	5.0	3.0	1.6	14	1.7
27		1.5	3.7	2.2	9.5	6.2	4.0	4.4	3.5	3.0	12	7.7
28		1.4	3.3	2.2	7.6	6.3	3.6	5.7	5.8	3.0	12	15
29		2.8	4.6	2.1	---	7.3	3.7	7.7	7.3	2.5	6.0	12
30		3.3	7.3	2.0	---	7.4	3.3	6.5	6.2	1.9	14	8.9
31		---	6.0	2.0	---	6.8	---	5.5	---	2.3	21	---
TOTAL		80.5	123.6	96.5	141.9	305.1	196.9	169.8	151.5	64.92	204.7	157.07
MEAN		2.68	3.99	3.11	5.07	9.84	6.56	5.48	5.05	2.09	6.60	5.24
MAX		9.9	7.4	7.7	13	31	11	15	12	4.8	21	16
MIN		1.3	2.1	2.0	2.0	4.6	3.3	2.0	2.6	.92	1.8	.78
CFSM		.49	.73	.57	.93	1.80	1.20	1.00	.92	.38	1.20	.96
IN.		.55	.84	.66	.96	2.07	1.34	1.15	1.03	.44	1.39	1.07

01173000 WARE RIVER AT INTAKE WORKS, NEAR BARRE, MASS.

LOCATION.--Lat 42°23'26", long 72°03'39", Worcester County, Hydrologic Unit 01080204, on right bank above diversion dam at Ware River intake works, 2.7 mi downstream from Burnshirt River, 3 mi southeast of Barre, and at mile 29.1.

DRAINAGE AREA.--96.3 mi^2.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1977, published as Ware River at Coldbrook.

REVISED RECORDS.--WSP 1031: 1944. WDR MA-RI-84-1: Drainage area.

GAGE.--Venturi meters and water-stage recorder. Datum of gage is 5.65 ft below National Geodetic Vertical Datum of 1929. Prior to Feb. 1, 1936, water-stage recorder at site 0.2 mi downstream at datum 631.91 ft above NGVD.

REMARKS.--No estimated daily discharges. Records good. Figures of discharge include diversion as needed for Boston metropolitan district during period Oct. 15 to June 14 of each year and at other times for emergency flood-control purposes as authorized by U. S. Army Corps of Engineers; diversion began in March 1931. Flow regulated by Barre Falls Reservoir 4.3 mi upstream (Reservoirs in Connecticut River basin) since 1958. Diversion at times since 1955 from 6.5 mi^2 upstream for municipal supply of Fitchburg.

COOPERATION.--Computations of daily discharge made in cooperation with Water Division, Metropolitan District Commission, which collected gage-height and venturi-meter records.

AVERAGE DISCHARGE.--57 years, 167 ft^3/s, 23.55 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft^3/s Sept. 21, 1938, gage height, 664.28 ft, by computation of flow over dam; minimum daily, 1.1 ft^3/s Sept. 19, 1965, caused by unusual regulation. Maximum daily discharge since construction of Barre Falls Reservoir in 1958, 1,570 ft^3/s Mar. 6, 14, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 536 ft^3/s Mar. 14; minimum daily, 14 ft^3/s Oct. 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	15	38	46	110	50	158	129	53	138	78	116	228
2	57	33	50	124	50	130	136	47	200	60	132	155
3	64	29	50	133	49	129	184	92	134	57	86	114
4	49	28	54	129	49	128	165	131	110	53	58	88
5	37	34	50	127	48	128	178	131	82	43	44	78
6	29	40	60	124	48	129	183	129	89	39	35	83
7	25	37	54	114	48	124	167	128	79	37	30	96
8	23	34	57	94	48	112	205	123	67	32	43	86
9	22	32	52	82	48	119	232	95	64	28	43	77
10	20	32	51	80	46	123	213	79	52	27	36	96
11	19	45	53	77	46	127	179	71	39	25	30	100
12	18	97	57	76	53	369	132	59	46	25	27	82
13	17	115	69	75	108	525	141	53	56	30	25	78
14	16	111	110	75	128	536	142	48	52	29	24	56
15	16	95	123	75	156	419	128	41	38	30	39	49
16	16	82	120	71	206	289	128	33	42	34	84	43
17	15	73	109	71	161	244	124	32	85	31	123	40
18	15	71	95	74	146	241	99	56	93	27	84	35
19	15	58	95	71	141	220	99	77	84	23	59	34
20	15	47	103	74	128	244	95	70	60	17	45	33
21	14	45	97	72	88	234	89	91	41	16	36	29
22	17	45	124	71	83	226	92	274	23	25	31	26
23	34	43	109	72	97	207	104	178	47	24	26	25
24	25	38	128	72	125	207	96	160	47	22	23	31
25	19	36	120	71	225	175	87	125	49	31	67	46
26	26	35	133	69	206	130	81	96	42	56	117	46
27	38	33	113	63	203	131	62	83	43	41	109	91
28	43	30	102	56	177	130	58	88	69	35	84	232
29	43	40	98	52	---	134	65	127	112	28	60	242
30	107	43	120	50	---	130	63	115	96	24	156	155
31	60	---	113	49	---	128	---	88	---	41	263	---
TOTAL	929	1519	2715	2553	2961	6326	3856	2973	2179	1068	2135	2574
MEAN	30.0	50.6	87.6	82.4	106	204	129	95.9	72.6	34.5	68.9	85.8
MAX	107	115	133	133	225	536	232	274	200	78	263	242
MIN	14	28	46	49	46	112	58	32	23	16	23	25
MEAN†	30.3	60.0	87.6	80.9	107	195	128	96.0	72.6	34.3	69.5	85.6
CFSM†	.31	.62	.91	.84	1.11	2.02	1.33	1.00	.75	.36	.72	.89
IN†	.36	.69	1.05	.97	1.16	2.34	1.49	1.15	.84	.41	.83	.99

CAL YR 1984 TOTAL 78899 MEAN 216 MAX 1400 MIN 11 MEAN† 215 CFSM† 2.23 IN† 30.41
WTR YR 1985 TOTAL 31788 MEAN 87.1 MAX 536 MIN 14 MEAN† 87.2 CFSM† .91 IN† 12.29

† Adjusted for change in contents in Barre Falls Reservoir.

01173500 WARE RIVER AT GIBBS CROSSING, MASS.

LOCATION.--Lat 42°14'10", long 72°16'23", Hampshire County, Hydrologic Unit 01080204, on right bank 0.5 mi upstream from Gibbs Crossing, 1.8 mi upstream from Beaver Brook, 2.5 mi southwest of Ware, and 8.8 mi upstream from mouth.

DRAINAGE AREA.--197 mi^2.

PERIOD OF RECORD.--Discharge: August 1912 to current year.
Water-quality records: Water years 1953-54.

REVISED RECORDS.--WSP 1031: 1944. WSP 1301: 1914(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 379.79 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 1, 1930, at site 0.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 7, 8, Jan. 5 to Feb. 2, Feb. 4-12, 16, 20, 21. Records good except those for winter period, which are poor. Diversion at times: Since March 1931 from 96.3 mi^2 for supply of Boston metropolitan district and since 1955 from 6.5 mi^2 for municipal supply of Fitchburg. Regulation by Barre Falls Reservoir (Reservoirs in Connecticut River basin) since 1958. Flow regulated by mills upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--18 years, (water years 1913-30), 313 ft^3/s, 21.36 in/yr; 55 years (water years 1931-85), affected by diversion and storage, 282 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,700 ft^3/s Sept. 21, 1938, gage height, 18.2 ft, from floodmarks, from rating curve extended above 4,600 ft^3/s on basis of contracted-opening measurement at gage height 12.83 ft and slope-area measurement at gage height 18.2 ft; minimum, 5.0 ft^3/s Oct. 26, 1914; minimum daily, 6.0 ft^3/s Oct. 4, 1914. Maximum discharge since construction of Barre Falls Reservoir in 1958, 5,050 ft^3/s Mar. 6, 1979, gage height, 7.94 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 999 ft^3/s Mar. 13, gage height, 3.76 ft; minimum, 19 ft^3/s Oct. 20, 22; minimum daily, 20 ft^3/s Oct. 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	58	79	87	208	90	253	222	170	348	186	673	672
2	96	75	56	217	80	239	296	106	531	154	336	461
3	37	52	144	236	67	223	286	189	405	97	238	291
4	121	62	112	211	58	206	303	232	247	138	156	245
5	103	68	109	170	100	234	266	260	244	82	131	205
6	95	98	85	160	100	270	254	265	205	87	80	136
7	28	92	150	145	90	207	257	299	165	83	73	202
8	78	71	115	135	92	254	301	174	191	71	84	232
9	27	69	110	125	95	266	420	240	175	62	112	217
10	27	62	138	120	90	266	321	185	138	75	83	303
11	33	97	72	100	90	242	295	144	133	97	124	238
12	41	191	121	110	110	514	257	164	108	68	178	195
13	46	303	104	130	281	805	259	102	121	76	113	131
14	35	193	181	135	406	508	231	156	124	76	76	144
15	29	194	148	130	361	388	254	100	137	73	82	141
16	46	170	175	130	300	330	239	103	124	109	107	115
17	22	100	184	120	288	329	230	103	216	168	197	83
18	29	133	167	125	255	328	205	137	256	98	202	61
19	34	110	142	130	214	226	175	152	179	100	140	64
20	20	118	166	130	265	293	188	132	204	60	116	66
21	23	97	198	130	190	346	188	214	143	59	80	68
22	23	42	162	130	186	321	175	607	148	58	67	71
23	56	104	279	130	236	329	201	492	109	49	74	69
24	102	96	223	130	300	274	199	324	95	56	62	69
25	74	33	168	130	454	250	166	235	156	44	110	69
26	108	91	199	125	382	222	165	220	112	57	265	161
27	78	54	229	115	346	279	180	203	122	122	294	192
28	36	71	274	105	296	196	106	161	142	55	213	297
29	123	72	218	100	---	255	149	217	188	72	152	337
30	81	124	104	95	---	253	153	245	247	60	180	360
31	149	---	209	90	---	240	---	221	---	85	812	---
TOTAL	1858	3121	4829	4247	5822	9346	6941	6552	5713	2677	5610	5895
MEAN	59.9	104	156	137	208	301	231	211	190	86.4	181	197
MAX	149	303	279	236	454	805	420	607	531	186	812	672
MIN	20	33	56	90	58	196	106	100	95	44	62	61

CAL YR 1984 TOTAL 145208 MEAN 397 MAX 4310 MIN 17
WTR YR 1985 TOTAL 62611 MEAN 172 MAX 812 MIN 20

01174050 EAST BRANCH FEVER BROOK NEAR PETERSHAM, MASS.

LOCATION.--Lat 42°28'49", long 72°13'27", Worcester County, Hydrologic Unit 01080204, on left bank at upstream side of culvert on Camels Hump Road and 2.0 mi west of Petersham.

DRAINAGE AREA.--4.85 mi .

PERIOD OF RECORD.-- November 1983 to September 1985 (discontinued).

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

REMARKS.--Estimated daily discharges: Jan. 3, 4, May 30 to June 1, June 27 to July 5, 1984, July 2-16, 1985. Records fair except those for estimated daily discharges, which are poor. Flow regulated by pond upstream.

EXTREMES FOR CURRENT PERIOD.--November 1983 to September 1984: Maximum discharge during period, 230 ft^3/s May 30; maximum gage height, 4.87 ft May 31 (backwater from debris in culvert); minimum discharge, 0.06 ft^3/s Sept. 8, 13, 22; minimum daily, 0.12 ft^3/s Sept. 12.

Water year 1985: Maximum discharge, 54 ft^3/s Mar. 12, gage height, 2.21 ft; minimum, 0.02 ft^3/s Oct. 15; minimum daily, 0.08 ft^3/s Oct. 15.

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		---	16	8.3	4.0	12	13	7.0	130	1.4	2.1	.44
2		---	12	8.2	3.7	9.0	17	6.2	93	1.2	1.9	.19
3		---	11	7.8	4.0	7.9	19	6.2	61	1.1	1.8	.27
4		---	9.1	7.3	14	7.3	19	17	42	1.1	1.2	.29
5		---	9.9	7.1	17	6.5	43	23	28	1.1	1.1	.19
6		---	11	7.2	18	11	102	18	21	1.1	1.1	.21
7		---	26	7.3	12	11	62	15	22	11	.97	.19
8		---	17	7.2	11	7.7	36	13	17	17	.77	.18
9		---	14	6.5	11	6.8	28	21	12	8.3	.68	.21
10		---	13	6.9	8.2	6.1	25	16	10	8.7	.61	.24
11		---	7.5	7.1	10	5.3	23	14	8.7	7.6	.60	.22
12		---	6.6	6.8	13	3.9	17	12	5.1	4.9	.48	.12
13		---	21	5.0	14	3.2	15	17	5.1	2.2	.45	.21
14		---	49	6.4	13	6.8	13	22	4.0	1.8	.54	.36
15		---	39	5.1	25	5.7	17	19	2.0	1.6	.70	.33
16		---	22	5.0	97	5.8	29	14	2.7	3.0	.28	.35
17		---	13	4.1	60	5.9	35	14	2.7	4.5	.32	.39
18		---	10	3.6	46	5.1	22	14	2.7	23	.55	.44
19		---	10	5.4	39	9.3	16	13	3.4	30	.42	.44
20		---	8.3	3.3	38	14	17	12	2.2	14	1.1	.47
21		---	6.0	3.3	29	16	17	12	1.6	12	.82	.22
22		---	9.3	3.7	21	26	15	9.1	1.3	8.9	.94	.31
23		---	12	3.3	17	28	14	8.7	1.1	6.8	1.1	.26
24		---	11	5.0	19	20	14	9.2	.87	5.8	.41	.22
25		---	9.0	12	21	16	14	8.5	1.4	2.0	.31	.21
26		---	9.0	11	15	16	14	7.7	1.9	1.8	.23	.27
27		---	7.7	9.7	14	14	12	7.8	1.6	2.2	.21	.23
28		---	9.2	7.5	16	16	10	5.1	1.5	2.1	.17	.28
29		30	20	5.2	20	18	8.6	45	1.3	1.6	.20	.43
30		25	14	6.1	---	17	9.0	200	1.2	2.1	.25	.47
31		---	9.7	6.1	---	15	---	185	---	2.5	.33	---
TOTAL		---	442.3	198.5	629.9	352.3	695.6	791.5	488.37	192.4	22.64	8.64
MEAN		---	14.3	6.40	21.7	11.4	23.2	25.5	16.3	6.21	.73	.29
MAX		---	49	12	97	28	102	200	130	30	2.1	.47
MIN		---	6.0	3.3	3.7	3.2	8.6	5.1	.87	1.1	.17	.12
CFSM		---	2.95	1.32	4.47	2.35	4.78	5.26	3.36	1.28	.15	.06
IN.		---	3.39	1.52	4.83	2.70	5.34	6.07	3.75	1.48	.17	.07

01174050 EAST BRANCH FEVER BROOK NEAR PETERSHAM, MASS.--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	.34	.57	1.9	6.3	2.1	6.7	5.0	2.1	27	3.4	4.1	4.4
2	.73	.54	1.4	9.3	2.5	4.6	7.3	2.0	17	2.3	3.8	4.0
3	1.1	.67	.88	7.9	1.8	4.6	7.3	2.0	12	1.5	3.5	4.2
4	1.1	.13	1.1	6.3	1.5	3.5	9.7	5.3	7.2	.85	2.8	6.4
5	.42	1.1	1.7	7.6	1.4	7.3	11	6.0	4.0	.70	2.3	4.7
6	.50	1.6	4.0	5.1	1.9	6.3	11	4.8	6.0	.80	2.5	4.3
7	.37	.54	4.1	5.0	2.3	5.2	7.8	6.0	6.2	1.0	2.1	3.3
8	.38	1.3	2.9	4.7	1.8	5.9	8.1	4.3	4.6	1.0	3.9	4.4
9	.38	1.7	2.7	2.2	2.0	7.4	10	4.4	5.9	.73	3.1	3.2
10	.16	1.8	2.3	3.3	2.1	6.0	12	4.6	5.9	.84	2.7	2.2
11	.23	2.6	2.6	4.6	1.7	6.0	11	3.6	2.6	.90	3.4	2.6
12	.21	11	3.2	5.3	2.1	30	8.7	1.9	2.0	.84	2.0	3.8
13	.11	8.7	4.4	3.2	8.8	49	7.5	3.0	1.7	1.3	1.9	2.8
14	.38	7.2	4.5	2.5	11	29	7.0	1.9	1.1	1.2	2.5	2.4
15	.08	4.9	3.9	3.0	7.6	14	7.9	1.7	1.5	1.2	2.5	2.2
16	.16	6.9	3.7	2.8	7.2	12	7.7	1.3	1.8	.95	13	2.0
17	.11	5.6	6.1	3.3	7.7	12	6.2	2.0	4.8	.89	11	1.7
18	.18	2.4	6.1	3.8	6.3	7.9	5.7	1.8	5.8	1.1	8.0	1.5
19	.23	2.1	5.5	3.4	5.7	7.5	7.9	1.5	3.3	1.3	6.7	1.5
20	.22	2.4	6.3	1.8	4.1	9.9	6.6	3.0	1.5	1.6	6.2	1.3
21	.30	2.5	4.5	2.4	3.0	6.5	5.3	16	1.0	1.1	3.8	1.0
22	.50	2.1	9.3	3.0	4.3	8.4	5.5	28	1.4	1.5	2.1	.47
23	.63	2.3	9.4	3.6	4.9	8.2	4.0	11	1.4	1.0	1.4	.36
24	.44	1.7	6.8	3.6	8.0	8.3	2.9	9.2	1.9	.86	1.1	.93
25	.47	1.4	8.3	3.6	11	5.7	4.1	7.7	1.1	1.1	2.0	.56
26	.59	1.2	7.2	2.4	7.7	7.4	4.7	5.5	.96	2.4	5.7	.66
27	.62	1.3	5.9	1.8	8.6	7.5	3.0	5.5	.90	2.4	7.8	3.6
28	1.8	1.8	6.7	2.0	7.5	7.6	4.3	4.6	1.6	1.3	5.5	5.6
29	.59	1.8	6.2	1.6	---	5.7	4.0	8.1	4.3	1.4	3.5	5.9
30	.61	1.3	4.8	1.3	---	3.1	2.3	6.9	3.6	1.4	2.8	4.8
31	.62	---	5.0	1.4	---	4.0	---	6.8	---	.91	4.2	---
TOTAL	14.56	81.15	143.38	118.1	136.6	307.2	205.5	172.5	140.06	39.77	127.9	86.78
MEAN	.47	2.70	4.63	3.81	4.88	9.91	6.85	5.56	4.67	1.28	4.13	2.89
MAX	1.8	11	9.4	9.3	11	49	12	28	27	3.4	13	6.4
MIN	.08	.13	.88	1.3	1.4	3.1	2.3	1.3	.90	.70	1.1	.36
CFSM	.10	.56	.95	.79	1.01	2.04	1.41	1.15	.96	.26	.85	.60
IN.	.11	.62	1.10	.91	1.05	2.36	1.58	1.32	1.07	.31	.98	.67

CAL YR 1984 TOTAL 3618.94 MEAN 9.89 MAX 200 MIN .08 CFSM 2.04 IN. 27.76
WTR YR 1985 TOTAL 1573.50 MEAN 4.31 MAX 49 MIN .08 CFSM .89 IN. 12.07

01174500 EAST BRANCH SWIFT RIVER NEAR HARDWICK, MASS.

LOCATION.--Lat 42°23'36", long 72°14'21", Worcester County, Hydrologic Unit 01080204, on left bank 100 ft above spillway of regulating dam and 4.6 mi northwest of Hardwick.

DRAINAGE AREA.--43.7 mi^2.

PERIOD OF RECORD.--Discharge: January 1937 to current year. Published as "near Dana" January 1937 to September 1939.
Water-quality records: Water year 1957.

GAGE.--Water-stage recorder. Concrete spillway since Mar. 12, 1940. Datum of gage is 504.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: June 25, Aug. 15, 16. Records fair October to February, poor thereafter. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--48 years, 69.6 ft^3/s, 21.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,780 ft^3/s Sept. 21, 1938, average of slope-area and contracted-opening measurements; maximum gage height since construction of concrete spillway in 1940, 22.49 ft June 25, 1944; no flow at times during several years.

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)
Mar. 13	0700	*328	*20.18				

Minimum discharge, 3.7 ft^3/s Oct. 1, July 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	4.3	18	30	52	17	50	45	15	146	50	28	83
2	14	16	28	65	18	43	43	15	185	39	36	64
3	17	15	29	71	20	40	44	22	115	33	32	51
4	17	14	34	60	18	37	45	31	68	34	25	40
5	17	24	32	52	18	41	47	31	45	30	20	34
6	15	37	42	42	19	40	47	32	42	26	15	35
7	13	36	39	39	18	33	48	32	36	24	13	46
8	11	30	32	40	17	35	57	29	33	21	13	48
9	12	28	30	32	17	36	74	25	31	20	18	43
10	11	28	28	28	15	40	64	20	28	21	16	46
11	11	34	28	28	14	42	53	19	24	21	14	50
12	11	99	29	26	16	127	44	19	23	17	18	43
13	11	112	33	26	49	308	38	16	23	16	15	36
14	9.8	84	40	26	81	215	33	15	22	13	12	31
15	9.2	63	42	26	76	144	29	13	19	12	12	27
16	8.5	51	39	24	58	104	29	11	19	14	75	25
17	8.4	41	37	22	45	83	29	11	42	18	86	22
18	8.5	35	38	22	38	76	27	14	51	14	57	22
19	8.8	32	41	23	33	64	24	17	46	12	39	21
20	9.2	28	48	24	30	60	23	17	34	9.9	31	20
21	8.8	26	48	22	27	63	22	26	25	8.8	25	19
22	10	23	67	22	27	59	23	137	20	8.2	20	19
23	24	22	75	22	30	53	22	109	17	7.8	17	17
24	27	21	67	21	45	48	22	65	17	6.5	14	18
25	23	21	61	21	84	45	21	41	26	4.7	25	18
26	25	19	54	21	92	42	19	29	29	4.9	56	19
27	24	19	45	19	79	38	19	22	30	9.3	70	45
28	22	19	41	19	63	36	18	24	35	11	57	103
29	23	25	41	18	---	36	18	34	59	11	42	84
30	22	29	51	18	---	36	16	31	62	9.9	49	61
31	19	---	54	17	---	34	---	25	---	9.2	91	---
TOTAL	454.5	1049	1303	948	1064	2108	1043	947	1352	536.2	1041	1190
MEAN	14.7	35.0	42.0	30.6	38.0	68.0	34.8	30.5	45.1	17.3	33.6	39.7
MAX	27	112	75	71	92	308	74	137	185	50	91	103
MIN	4.3	14	28	17	14	33	16	11	17	4.7	12	17
CFSM	.34	.80	.96	.70	.87	1.56	.80	.70	1.03	.40	.77	.91
IN.	.39	.89	1.11	.81	.91	1.79	.89	.81	1.15	.46	.89	1.01

CAL YR 1984 TOTAL 34428.6 MEAN 94.1 MAX 1530 MIN 3.7 CFSM 2.15 IN. 29.31
WTR YR 1985 TOTAL 13035.7 MEAN 35.7 MAX 308 MIN 4.3 CFSM .82 IN. 11.10

01174565 WEST BRANCH SWIFT RIVER NEAR SHUTESBURY, MASS.

LOCATION.--Lat 42°27'18", long 72°22'56", Franklin County, Hydrologic Unit 01080204, on left bank 800 ft downstream from State Highway 202 and 1.4 mi east of Shutesbury.

DRAINAGE AREA.--12.6 mi.

PERIOD OF RECORD.--November 1983 to September 1985 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 12-18, 22-29, Dec. 21, 25-29, 31, 1983, Jan. 1, 12-26, 29, Feb. 1-3, 8-10, Mar. 8, 10-15, May 4-16, Dec. 8, 26-28, 1984, Jan. 4, Jan. 6 to Feb. 13, Feb. 16, 17, 21, 28, Mar. 7, 1985. Records fair except those for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT PERIOD.--November 1983 to September 1984: Maximum discharge during period, 801 ft^3/s May 30, gage height, 4.64 ft, from rating curve extended above 310 ft^3/s on basis of slope-area measurement at gage height 4.28 ft; minimum, 0.90 ft^3/s, Sept. 21-30.

Water year 1985: Maximum discharge, 318 ft^3/s Mar. 12, gage height, 3.28 ft; minimum, 0.90 ft^3/s Oct. 1.

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		---	35	34	15	51	40	26	205	7.4	4.3	2.1
2		---	29	29	15	43	48	24	159	7.6	3.9	1.7
3		---	25	27	19	37	57	24	114	7.2	3.8	1.9
4		---	24	26	39	35	65	100	78	6.5	3.5	2.6
5		---	24	24	44	32	238	60	61	5.6	3.2	2.8
6		---	26	24	38	36	353	40	50	18	2.8	1.9
7		---	118	24	28	35	172	35	44	164	3.6	1.4
8		3.6	59	22	22	30	121	45	38	67	5.6	1.4
9		3.8	39	21	21	29	92	70	32	29	3.6	1.4
10		4.2	34	20	20	27	77	45	27	20	3.3	1.3
11		23	31	21	20	25	65	35	23	15	2.9	1.2
12		19	29	20	25	23	65	40	20	14	2.3	1.0
13		12	175	20	27	21	63	60	18	11	2.2	1.0
14		9.4	299	19	29	21	68	90	18	8.2	2.2	1.0
15		8.5	126	18	81	24	92	60	17	6.9	2.2	1.2
16		68	83	17	405	24	131	43	15	12	1.7	1.4
17		55	63	15	143	29	110	37	14	18	1.6	1.4
18		26	52	14	184	29	73	32	15	25	1.6	1.4
19		19	46	14	121	31	70	29	17	24	1.5	1.1
20		15	38	13	112	36	65	26	14	14	10	1.0
21		40	35	14	85	42	62	25	13	10	4.0	1.0
22		37	37	14	64	69	51	22	11	9.2	3.2	.90
23		26	40	14	54	70	45	24	11	7.4	2.4	.90
24		25	35	17	87	54	51	36	10	6.7	2.4	.90
25		144	30	46	86	47	50	26	12	5.9	2.1	.90
26		130	27	36	83	44	43	22	11	4.5	1.7	.90
27		73	25	24	61	43	36	20	9.2	5.5	1.4	.90
28		54	34	20	57	41	32	19	7.7	8.8	1.4	.90
29		62	62	19	63	42	29	173	7.6	6.8	1.4	.90
30		49	45	17	---	44	27	612	6.8	6.3	1.4	.90
31		---	37	17	---	38	---	521	---	4.9	1.8	---
TOTAL		---	1762	660	2048	1152	2491	2421	1078.3	556.4	89.0	39.30
MEAN		---	56.8	21.3	70.6	37.2	83.0	78.1	35.9	17.9	2.87	1.31
MAX		---	299	46	405	70	353	612	205	164	10	2.8
MIN		---	24	13	15	21	27	19	6.8	4.5	1.4	.90
CFSM		---	4.47	1.68	5.56	2.93	6.54	6.15	2.83	1.41	.23	.10
IN.		---	5.16	1.93	6.00	3.37	7.30	7.09	3.16	1.63	.26	.12

01174565 WEST BRANCH SWIFT RIVER NEAR SHUTESBURY, MASS.--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	.94	2.5	7.9	20	6.3	18	22	6.9	9.9	6.9	22	13
2	7.6	2.3	7.2	31	6.2	17	22	6.6	8.1	4.4	12	9.2
3	4.6	2.1	6.8	27	6.1	14	22	13	6.9	3.3	7.9	7.3
4	3.1	2.0	8.8	21	6.0	13	23	15	6.0	2.9	5.5	5.9
5	2.7	32	7.5	17	6.0	17	26	11	6.0	2.6	3.8	5.1
6	1.9	27	40	15	6.0	14	26	12	7.1	2.8	2.9	7.6
7	1.9	12	17	13	6.0	13	22	12	5.8	3.4	2.5	20
8	1.6	7.7	8.4	12	6.0	14	24	10	5.7	2.9	6.0	14
9	1.6	5.8	6.7	11	6.0	17	23	9.3	6.6	2.8	4.2	11
10	1.6	6.3	5.9	11	6.0	17	20	8.8	5.1	2.4	3.0	22
11	1.5	9.9	6.2	10	6.0	18	18	8.2	4.1	2.4	2.9	17
12	1.5	41	7.4	9.8	6.2	162	17	7.5	6.2	2.4	2.8	12
13	1.5	25	8.8	9.4	23	106	16	7.2	6.1	4.3	1.5	8.9
14	1.4	16	12	9.0	25	59	14	6.5	5.4	2.7	1.3	8.2
15	1.4	12	12	8.8	21	45	14	5.8	5.1	2.6	2.7	5.6
16	1.4	12	11	8.6	17	37	14	5.9	5.5	3.1	28	5.1
17	1.3	9.7	11	8.4	15	38	13	5.4	8.9	4.0	12	4.7
18	1.4	8.1	15	8.2	13	33	13	18	8.5	2.5	6.4	4.2
19	1.4	6.6	16	8.0	10	30	12	21	7.2	1.6	5.4	3.7
20	1.4	6.0	22	8.0	9.6	29	11	15	5.7	1.3	5.4	3.4
21	1.4	5.7	17	8.0	9.3	29	11	16	4.7	1.2	4.1	3.1
22	1.6	5.6	26	7.8	9.4	26	10	21	4.4	1.3	3.3	2.9
23	6.0	5.7	28	7.6	13	23	9.6	13	4.6	1.1	2.9	2.8
24	3.9	5.5	20	7.4	22	22	8.6	9.8	5.6	1.1	2.4	3.5
25	3.3	5.1	20	7.2	40	21	8.9	7.6	5.7	1.4	12	5.0
26	4.2	5.1	19	7.1	32	19	8.2	6.8	5.0	3.5	21	4.1
27	4.2	4.8	17	7.0	27	19	7.7	6.2	4.8	6.6	14	21
28	3.6	4.7	15	6.8	21	19	7.9	9.9	6.4	3.5	9.0	33
29	3.6	8.7	15	6.7	---	20	7.7	13	9.7	2.8	6.4	15
30	3.3	11	25	6.5	---	19	7.4	9.2	9.4	2.5	7.8	9.3
31	3.0	---	22	6.4	---	19	---	7.4	---	4.2	18	---
TOTAL	79.84	307.9	461.6	344.7	380.1	947	459.0	325.0	190.2	90.5	239.1	287.6
MEAN	2.58	10.3	14.9	11.1	13.6	30.5	15.3	10.5	6.34	2.92	7.71	9.59
MAX	7.6	41	40	31	40	162	26	21	9.9	6.9	28	33
MIN	.94	2.0	5.9	6.4	6.0	13	7.4	5.4	4.1	1.1	1.3	2.8
CFSM	.20	.81	1.17	.87	1.07	2.40	1.20	.83	.50	.23	.61	.76
IN.	.23	.90	1.35	1.01	1.11	2.77	1.34	.95	.56	.27	.70	.84

CAL YR 1984 TOTAL 11384.34 MEAN 31.1 MAX 612 MIN .90 CFSM 2.45 IN. 33.35
WTR YR 1985 TOTAL 4112.54 MEAN 11.3 MAX 162 MIN .94 CFSM .89 IN. 12.05

01174600 CADWELL CREEK NEAR PELHAM, MASS.

LOCATION.--Lat 42°21'16", long 72°23'18", Hampshire County, Hydrologic Unit 01080204, on left bank 0.8 mi east of Knights Corner, 2 mi upstream from mouth, 2.7 mi south of Pelham, and 5 mi north of Belchertown.

DRAINAGE AREA.--0.60 mi².

PERIOD OF RECORD.--July 1961 to current year.

REVISED RECORDS.--WDR MA-RI-84-1: 1962(M), 1964(M), 1968-69(M), 1970(P), 1972-73(P), 1974(M), 1975-77(P), 1979-80(P), 1982-83(P), Drainage area.

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir. Elevation of gage is 860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 9-11, 13-16, Feb. 13, Mar. 5-8, 12, Aug. 27 to Sept. 16, Sept. 20-24. 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.--24 years, 1.15 ft³/s, 26.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62 ft³/s, Mar. 6, 1979, gage height, 5.26 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 19 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 21	1930	*20	*4.57	No other peak greater than base discharge.			

Minimum discharge, 0.01 ft³/s Oct. 1, 10, 12, 16-19.

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	.02	.09	.33	.98	.22	.81	1.2	.34	5.1	.80	3.2	.70
2	.47	.09	.28	1.8	.24	.72	1.4	.29	1.8	.53	.49	.56
3	.23	.08	.37	1.3	.24	.65	1.2	1.3	1.0	.36	.25	.45
4	.11	.08	.69	.92	.22	.61	1.1	1.1	.73	.35	.15	.37
5	.06	1.5	.44	.77	.22	.70	.91	.74	.84	.26	.10	.33
6	.03	.67	.54	.62	.22	.66	.83	.90	1.2	.29	.08	.48
7	.03	.33	.46	.58	.22	.60	.70	.92	.70	.44	.07	.41
8	.03	.23	.35	.55	.22	1.0	1.5	.65	.67	.27	.37	.39
9	.03	.20	.33	.48	.21	1.3	1.5	.52	.68	.18	.22	.52
10	.04	.29	.35	.37	.21	1.2	1.0	.46	.47	.29	.10	.58
11	.03	1.0	.58	.39	.21	1.0	.86	.38	.32	.31	.71	.40
12	.02	2.5	.76	.36	.40	5.5	.74	.33	.52	.22	.84	.25
13	.02	.87	1.2	.33	4.0	4.3	.65	.37	1.2	.48	.25	.19
14	.02	.53	1.3	.30	1.9	2.6	.63	.31	.87	.26	.15	.15
15	.02	.39	.81	.27	1.2	1.8	.62	.26	.53	.25	.13	.12
16	.02	.38	.63	.27	1.0	1.5	.61	.24	.86	.66	.49	.10
17	.01	.32	.85	.28	.82	1.4	.53	.26	3.0	.90	.22	.09
18	.01	.28	.77	.30	.69	1.2	.50	1.9	1.9	.32	.12	.08
19	.01	.26	.89	.31	.64	1.1	.50	1.5	1.2	.17	.24	.08
20	.02	.23	1.2	.32	.63	1.3	.46	.95	.73	.13	.24	.07
21	.02	.21	.80	.29	.57	1.2	.43	6.3	.54	.08	.16	.07
22	.08	.20	1.9	.26	.70	.93	.65	7.1	.40	.14	.11	.06
23	.40	.19	1.5	.27	1.6	.84	.75	2.1	.52	.08	.08	.06
24	.17	.20	.98	.27	2.7	.81	.57	1.3	2.3	.06	.06	.10
25	.09	.18	1.3	.28	2.4	.74	.52	.87	2.4	.05	1.2	.16
26	.25	.18	.87	.27	1.4	.69	.48	.67	1.2	.14	1.4	.09
27	.21	.19	.65	.25	1.2	.63	.37	.62	.94	.27	.49	1.3
28	.15	.18	.60	.24	.95	.62	.42	1.1	1.4	.10	.32	.87
29	.20	.51	1.2	.23	---	.63	.44	1.1	1.7	.07	.25	.42
30	.19	.42	1.4	.21	---	.60	.36	.67	1.2	.05	1.2	.28
31	.12	---	.92	.21	---	.58	---	.51	---	.60	2.0	---
TOTAL	3.11	12.78	25.25	14.28	25.23	38.22	22.43	36.06	36.92	9.11	15.69	9.73
MEAN	.10	.43	.81	.46	.90	1.23	.75	1.16	1.23	.29	.51	.32
MAX	.47	2.5	1.9	1.8	4.0	5.5	1.5	7.1	5.1	.90	3.2	1.3
MIN	.01	.08	.28	.21	.21	.58	.36	.24	.32	.05	.06	.06
CFSM	.17	.72	1.35	.77	1.50	2.05	1.25	1.93	2.05	.48	.85	.53
IN.	.19	.79	1.57	.89	1.56	2.37	1.39	2.24	2.29	.56	.97	.60

CAL YR 1984 TOTAL 520.94 MEAN 1.42 MAX 37 MIN .01 CFSM 2.37 IN. 32.30
WTR YR 1985 TOTAL 248.81 MEAN .68 MAX 7.1 MIN .01 CFSM 1.13 IN. 15.43

01174900 CADWELL CREEK NEAR BELCHERTOWN, MASS.

LOCATION.--Lat 42°20'08", long 72°22'12", Hampshire County, Hydrologic Unit 01080204, on left bank 200 ft upstream from mouth, 2 mi southeast of Knights Corner, and 4.5 mi north of Belchertown.

DRAINAGE AREA.--2.55 mi^2.

PERIOD OF RECORD.--July 1961 to current year.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir. Elevation of gage is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 11 to Dec. 20, May 22, June 30, July 1. Records good except those for estimated daily discharges and those for period of doubtful gage-height record, Jan. 29 to Mar. 22, which are fair. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--24 years, 4.89 ft^3/s, 26.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 271 ft^3/s Mar. 6, 1979, gage height, 7.42 ft, from rating curve extended above 92 ft^3/s; minimum, 0.07 ft^3/s several times in water years 1964-66.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 1	0030	*63	*6.35				

Minimum discharge, 0.15 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	.21	.76	2.0	4.6	1.4	4.8	4.6	2.1	19	4.0	18	5.5
2	3.3	.76	1.6	7.1	1.5	4.6	5.8	1.9	9.0	2.6	4.1	4.0
3	1.4	.67	2.4	5.7	1.5	4.4	5.3	5.7	5.8	2.0	2.4	3.2
4	.75	.63	3.6	4.5	1.5	3.9	4.8	5.4	4.3	1.7	1.6	2.4
5	.53	6.2	2.7	3.8	1.4	4.6	4.3	4.0	4.6	1.4	1.1	2.1
6	.41	3.7	3.1	3.5	1.5	4.2	4.1	4.2	6.6	1.4	.90	3.4
7	.37	1.9	2.6	3.2	1.5	3.8	3.7	4.1	4.2	2.0	.78	2.9
8	.37	1.3	2.1	2.9	1.5	4.9	6.4	3.4	3.9	1.3	2.6	2.4
9	.36	1.2	2.0	2.5	1.5	6.2	6.4	3.0	4.1	1.0	1.7	3.0
10	.36	1.7	2.1	2.4	1.4	5.9	4.9	2.7	3.0	2.1	1.0	4.1
11	.38	5.5	3.4	2.3	1.4	5.1	4.2	2.3	2.0	1.8	5.1	3.0
12	.36	12	4.5	2.0	2.1	27	3.9	2.1	3.1	1.6	5.3	2.0
13	.33	5.4	5.5	1.9	19	18	3.6	1.9	4.7	2.7	2.2	1.7
14	.33	3.5	6.0	2.0	9.0	11	3.5	1.7	4.2	1.6	1.5	1.4
15	.32	2.1	4.2	2.1	6.4	8.3	3.5	1.5	2.7	1.6	1.2	1.2
16	.31	2.1	3.5	1.6	5.3	7.3	3.4	1.4	3.8	4.3	3.4	1.1
17	.31	1.8	3.9	1.4	4.5	7.0	3.0	1.5	13	6.9	1.8	.99
18	.31	1.6	3.4	1.8	4.0	6.5	2.8	8.9	8.0	2.7	1.2	.94
19	.33	1.4	3.7	1.9	3.8	5.8	2.8	6.6	5.5	1.6	1.8	.89
20	.33	1.3	5.3	1.9	3.9	6.3	2.8	4.7	3.6	1.2	1.7	.82
21	.31	1.2	3.8	1.7	3.6	5.8	2.6	15	2.7	.85	1.2	.75
22	.57	1.1	7.8	1.6	4.0	4.9	3.5	26	2.0	1.3	.96	.71
23	3.2	1.1	6.4	1.7	7.3	4.7	4.0	10	2.3	.83	.83	.69
24	1.3	1.1	4.6	1.7	12	4.5	3.2	6.9	7.8	.64	.69	.98
25	.84	1.0	5.5	1.7	9.5	4.1	3.0	5.0	9.6	.53	5.9	1.3
26	1.9	1.0	4.3	1.7	6.8	3.8	2.7	4.0	5.2	1.1	6.6	.93
27	1.4	1.0	3.4	1.6	6.6	3.7	2.5	3.7	4.5	1.8	4.2	5.1
28	1.1	1.0	3.5	1.5	5.3	3.7	2.4	5.9	6.0	.85	2.5	4.4
29	1.4	2.9	5.5	1.5	---	3.7	2.3	6.5	7.1	.60	1.7	2.3
30	1.2	2.4	6.0	1.5	---	3.5	2.2	4.1	5.2	.49	7.8	1.7
31	.92	---	4.4	1.4	---	3.3	---	3.2	---	2.8	13	---
TOTAL	25.51	69.32	122.8	76.7	129.2	195.3	112.2	159.4	167.5	57.29	104.76	65.90
MEAN	.82	2.31	3.96	2.47	4.61	6.30	3.74	5.14	5.58	1.85	3.38	2.20
MAX	3.3	12	7.8	7.1	19	27	6.4	26	19	6.9	18	5.5
MIN	.21	.63	1.6	1.4	1.4	3.3	2.2	1.4	2.0	.49	.69	.69
CFSM	.32	.91	1.55	.97	1.81	2.47	1.47	2.02	2.19	.73	1.33	.86
IN.	.37	1.01	1.79	1.12	1.88	2.85	1.64	2.33	2.44	.84	1.53	.96

CAL YR 1984 TOTAL 2245.51 MEAN 6.14 MAX 139 MIN .15 CFSM 2.41 IN. 32.76
WTR YR 1985 TOTAL 1285.88 MEAN 3.52 MAX 27 MIN .21 CFSM 1.38 IN. 18.76

01175500 SWIFT RIVER AT WEST WARE, MASS.

LOCATION.--Lat 42°16'04", long 72°19'59", Hampshire County, Hydrologic Unit 01080204, on left bank at West Ware, 1.4 mi downstream from Quabbin Reservoir, 3.5 mi east of Belchertown, and 8.0 mi upstream from mouth.

DRAINAGE AREA.--189 mi^2, includes 1.6 mi^2 drained by Beaver Brook, flow of which is diverted from Ware River basin. Prior to January 1937, 186 mi^2.

PERIOD OF RECORD.--Discharge: July 1910 to September 1912 (twice-daily gage heights and corresponding discharge), October 1912 to current year.
Water-quality records: Water years 1952-54.

REVISED RECORDS.--WSP 451: 1916. WSP 871: 1919. WSP 1031: 1944 (changes in reservoir contents and adjusted figures only). WSP 1301: 1925(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 365.18 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 25, 1912, nonrecording gage at site 400 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 16, 21, 22, 27, Feb. 4, 5, 8-10. Records good. Flow regulated since August 1939 by Quabbin Reservoir (Reservoirs in Connecticut River basin). Diversion from Ware River to Quabbin Reservoir since 1940, from Quabbin Reservoir to Wachusett Reservoir since 1941, from Quabbin Reservoir to Chicopee Valley aqueduct since 1950, and at times since 1966 from Quabbin Reservoir to city of Worcester. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--27 years (water years 1913-39) prior to completion of Quabbin Reservoir, 314 ft^3/s, 22.56 in/yr; 46 years (water years 1940-85), affected by storage and diversions, 98.3 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,590 ft^3/s Mar. 19, 1936, gage height, 15.00 ft; minimum daily, 9.1 ft^3/s Dec. 15, 1968. Maximum discharge since construction of Quabbin Reservoir in 1939, 3,070 ft^3/s June 1, 1984, gage height, 11.58 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 190 ft^3/s Aug. 1, gage height, 3.01 ft; maximum gage height, 3.06 ft, Feb. 9 (ice jam); minimum daily discharge, 31 ft^3/s Oct. 9.

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	106	116	112	43	41	42	44	41	45	43	126	115
2	127	113	112	44	41	41	44	40	43	42	116	115
3	77	113	113	43	41	41	43	42	42	42	116	114
4	48	113	113	43	41	41	43	40	42	42	115	113
5	48	115	112	43	41	42	43	40	43	42	115	113
6	48	113	113	42	41	42	43	41	43	43	114	113
7	48	113	113	43	41	41	42	41	42	42	114	113
8	48	112	112	43	41	42	45	40	42	78	116	113
9	31	112	113	43	41	42	44	40	43	113	113	114
10	40	112	113	43	41	41	43	41	42	83	113	114
11	40	115	113	43	41	42	43	41	42	82	112	112
12	40	115	113	43	42	49	43	41	43	113	114	111
13	40	113	113	43	45	45	43	40	43	113	113	113
14	40	112	113	43	42	44	43	40	43	113	110	116
15	40	112	112	43	42	44	43	40	43	113	111	117
16	47	112	112	43	42	44	42	40	43	112	112	117
17	86	111	112	43	41	44	43	41	44	91	111	117
18	115	112	112	42	41	44	43	41	43	113	110	117
19	115	112	112	42	41	44	39	41	43	113	111	117
20	115	112	68	42	41	44	40	41	43	113	111	117
21	115	112	50	42	41	44	40	44	43	113	112	117
22	116	112	41	42	41	44	40	43	43	115	112	117
23	116	112	41	42	42	43	40	42	44	115	112	117
24	113	112	40	41	43	44	41	42	44	115	112	117
25	113	112	40	41	42	43	41	41	44	115	117	118
26	114	112	40	41	42	44	41	42	43	116	116	118
27	112	113	43	41	42	44	40	42	43	116	113	99
28	112	102	43	41	41	44	41	42	44	115	113	118
29	112	110	44	41	---	44	41	42	44	115	113	120
30	114	112	43	41	---	44	40	42	43	115	118	120
31	114	---	43	41	---	43	---	42	---	119	118	---
TOTAL	2550	3367	2674	1311	1162	1340	1261	1276	1292	2915	3529	3452
MEAN	82.3	112	86.3	42.3	41.5	43.2	42.0	41.2	43.1	94.0	114	115
MAX	127	116	113	44	45	49	45	44	45	119	126	120
MIN	31	102	40	41	41	41	39	40	42	42	110	99

CAL YR 1984 TOTAL 120542 MEAN 329 MAX 3040 MIN 31
WTR YR 1985 TOTAL 26129 MEAN 71.6 MAX 127 MIN 31

01175670 SEVENMILE RIVER NEAR SPENCER, MASS.

LOCATION.--Lat 42°15'54", long 72°00'19", Worcester County, Hydrologic Unit 01080204, on right bank 40 ft upstream from bridge on Cooney Road and 1.5 mi north of Spencer.

DRAINAGE AREA.--8.68 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water year 1960. October 1960 to current year. October and November 1960 monthly discharge only, published in WSP 1901.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 630 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 25, 1984, at datum 8.83 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-3, Dec. 6, 8, 16, 26-28, Jan. 5, 6, Jan. 8 to Feb. 21, Mar. 19. Records good except those for estimated daily discharges, which are poor. Occasional regulation by ponds upstream since 1971. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--25 years, 14.6 ft^3/s, 22.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 412 ft^3/s Mar. 18, 1968, gage height, 5.19 ft, datum then in use; maximum gage height, 10.96 ft Feb. 13, Aug. 1, 1985; minimum discharge, 0.04 ft^3/s Sept. 10, 11, 1980 (regulated); minimum daily, 0.13 ft^3/s July 21, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 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	0945	ice jam	*10.96	Aug. 1	0730	*85	*10.96
Mar. 12	1815	70	10.80	Sept. 27	2145	76	10.88
May 22	0230	84	10.95				

Minimum discharge, 0.55 ft^3/s, Oct. 16-18; minimum daily, 0.55 ft^3/s Oct. 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	1.4	3.2	4.9	8.4	3.3	14	15	5.6	18	11	58	12
2	2.4	2.2	4.8	10	3.3	13	17	4.9	15	8.8	30	8.2
3	2.7	2.4	4.2	11	3.4	11	17	12	10	7.4	17	6.8
4	2.7	3.0	5.2	9.7	3.4	9.7	16	27	8.7	6.8	9.7	5.3
5	2.6	4.1	5.2	8.8	3.4	14	15	17	7.8	6.1	6.4	4.5
6	2.2	2.2	6.4	8.0	3.3	15	14	15	8.9	5.2	5.0	3.9
7	2.1	2.7	7.5	7.2	3.3	12	12	15	7.5	4.9	3.9	4.2
8	1.9	2.8	6.4	6.6	3.2	14	18	12	6.7	4.4	4.4	4.0
9	1.6	3.8	5.5	6.2	3.1	18	22	8.9	7.6	3.8	4.6	5.1
10	1.4	3.4	5.0	5.9	3.1	24	18	7.4	6.5	3.6	4.2	13
11	1.3	3.4	5.2	5.5	3.1	15	16	6.1	5.2	3.6	3.6	11
12	1.1	15	5.9	5.2	8.5	41	13	6.0	8.6	3.2	3.5	7.7
13	1.1	11	6.4	4.8	40	54	11	6.2	11	4.4	2.7	6.1
14	1.4	8.0	6.6	4.7	35	41	9.8	5.6	8.4	4.2	2.3	5.2
15	1.5	6.1	6.2	4.6	30	33	9.6	5.1	7.7	6.0	2.3	4.4
16	.65	5.8	6.2	4.5	24	27	9.6	4.9	8.2	5.8	2.5	3.6
17	.55	5.2	6.0	4.4	19	24	8.9	4.5	29	5.5	2.4	3.2
18	1.5	4.6	5.7	4.3	14	24	7.9	6.0	18	4.4	2.2	2.6
19	2.6	4.5	5.8	4.2	12	22	7.8	8.3	15	3.9	1.8	2.3
20	1.7	3.2	6.6	4.2	10	22	7.7	7.8	9.8	3.3	1.6	2.2
21	.66	3.5	6.6	4.1	9.0	24	7.7	19	8.1	2.8	1.5	2.1
22	1.1	3.1	11	4.0	9.0	21	7.4	65	6.9	2.9	1.4	2.0
23	3.2	3.1	13	4.0	12	19	8.1	33	6.9	2.6	1.3	1.8
24	3.2	2.9	10	3.9	17	18	7.5	22	8.3	2.1	1.2	3.6
25	3.4	3.0	11	3.8	24	16	7.2	17	13	2.0	2.8	26
26	1.5	2.3	8.8	3.7	20	15	7.2	11	10	2.3	6.5	24
27	7.3	2.3	8.0	3.6	20	13	6.9	8.0	12	4.7	5.7	38
28	3.2	2.5	7.1	3.5	16	12	6.4	8.4	18	3.2	5.0	57
29	2.5	4.5	8.5	3.3	---	12	6.2	15	19	2.5	4.1	34
30	3.1	5.3	9.9	3.2	---	11	5.9	12	15	2.0	4.1	21
31	2.9	---	8.6	3.2	---	11	---	9.5	---	2.5	16	---
TOTAL	66.46	129.1	218.2	168.5	355.4	619.7	335.8	405.2	334.8	135.9	217.7	324.8
MEAN	2.14	4.30	7.04	5.44	12.7	20.0	11.2	13.1	11.2	4.38	7.02	10.8
MAX	7.3	15	13	11	40	54	22	65	29	11	58	57
MIN	.55	2.2	4.2	3.2	3.1	9.7	5.9	4.5	5.2	2.0	1.2	1.8
CFSM	.25	.50	.81	.63	1.46	2.30	1.29	1.51	1.29	.50	.81	1.24
IN.	.28	.55	.94	.72	1.52	2.66	1.44	1.74	1.43	.58	.93	1.39

CAL YR 1984 TOTAL 6531.54 MEAN 17.8 MAX 265 MIN .29 CFSM 2.05 IN. 27.99
WTR YR 1985 TOTAL 3311.56 MEAN 9.07 MAX 65 MIN .55 CFSM 1.04 IN. 14.19

01176000 QUABOAG RIVER AT WEST BRIMFIELD, MASS.

LOCATION.--Lat 42°10'56", long 72°15'51", Hampden County, Hydrologic Unit 01080204, on right bank 10 ft upstream from abandoned highway bridge site at West Brimfield, 0.9 mi upstream from Blodgett Mill Brook, 3.5 mi northeast of Palmer, and 9.9 mi upstream from mouth.

DRAINAGE AREA.--150 mi^2.

PERIOD OF RECORD.--Discharge: August 1909 to July 1912 (twice-daily gage heights and corresponding discharges), August 1912 to current year.
Water-quality records: Water years 1953, 1967, 1969-70, 1972-74.

REVISED RECORDS.--WSP 451: 1916. WSP 1301: 1918(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 19, 1912, nonrecording gage, and Aug. 19, 1912, to Oct. 31, 1955, water-stage recorder, at several sites 0.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 6, 8-10, 26, 27, Jan. 6 to Feb. 22. Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation at low flow caused by mill upstream prior to 1956; regulation much greater prior to 1938. High flow slightly affected by retarding reservoirs since 1965. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--73 years (water years 1913-85), 245 ft^3/s, 22.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 ft^3/s Aug. 19, 1955, gage height, 15.36 ft, from floodmarks, present site and datum, from rating curve extended above 2,700 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 6.6 ft^3/s Sept. 28, 29, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 840 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 21	2000	*1,540	*6.41	Aug. 1	0230	870	5.24

Minimum discharge, 34 ft^3/s Oct. 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	44	98	85	133	74	200	203	95	230	181	508	176
2	79	89	81	138	74	180	207	95	210	160	361	168
3	85	82	88	136	73	162	208	137	189	148	342	162
4	93	78	95	137	72	165	197	157	171	135	325	152
5	107	80	94	127	71	174	208	167	163	126	297	142
6	119	79	97	100	70	165	206	190	161	118	264	139
7	111	72	104	110	69	168	189	199	141	110	237	134
8	107	72	110	95	68	177	227	186	127	98	228	141
9	107	70	115	85	67	185	245	184	125	90	210	191
10	106	70	110	84	66	182	242	169	109	94	189	246
11	100	76	109	82	66	178	240	156	96	89	215	198
12	96	120	111	80	80	278	225	146	113	82	220	179
13	93	124	114	80	220	338	219	136	128	91	166	170
14	88	118	114	76	260	354	210	123	117	82	143	159
15	84	129	113	73	290	337	197	113	115	82	127	150
16	84	122	108	72	280	329	186	102	128	84	116	141
17	83	106	107	78	250	325	160	96	213	85	106	132
18	81	112	104	80	220	306	168	97	210	80	98	124
19	81	106	105	76	210	297	160	101	197	74	89	114
20	78	94	110	78	190	292	155	108	178	67	78	108
21	74	88	109	80	170	277	147	385	165	62	70	106
22	77	86	134	80	165	284	148	606	150	66	65	110
23	101	91	137	79	171	273	149	449	142	62	59	116
24	104	79	143	77	196	260	130	395	142	56	55	135
25	105	77	136	75	209	234	121	357	151	54	77	220
26	118	74	130	75	223	216	108	318	152	56	136	216
27	119	71	140	79	209	221	104	278	154	63	139	353
28	116	69	182	77	198	206	107	258	169	59	113	385
29	115	83	138	76	---	201	101	261	201	58	90	348
30	111	80	135	75	---	194	99	228	196	56	101	329
31	104	---	135	74	---	188	---	203	---	81	209	---
TOTAL	2970	2695	3593	2767	4311	7346	5266	6495	4743	2749	5433	5444
MEAN	95.8	89.8	116	89.3	154	237	176	210	158	88.7	175	181
MAX	119	129	182	138	290	354	245	606	230	181	508	385
MIN	44	69	81	72	66	162	99	95	96	54	55	106
CFSM	.64	.60	.77	.60	1.03	1.58	1.17	1.40	1.05	.59	1.17	1.21
IN.	.74	.67	.89	.69	1.07	1.82	1.31	1.61	1.18	.68	1.35	1.35

CAL YR 1984 TOTAL 121057 MEAN 331 MAX 2420 MIN 30 CFSM 2.21 IN. 30.02
WTR YR 1985 TOTAL 53812 MEAN 147 MAX 606 MIN 44 CFSM .98 IN. 13.35

01177000 CHICOPEE RIVER AT INDIAN ORCHARD, MASS.

LOCATION.--Lat 42°09'38", long 72°30'52", Hampden County, Hydrologic Unit 01080204, on left bank 1,000 ft downstream from West Street Bridge at Indian Orchard, 1.1 mi upstream from Fuller Brook, and 7.2 mi upstream from mouth.

DRAINAGE AREA.--689 mi^2.

PERIOD OF RECORD.--Discharge: August 1928 to current year. Published as "at Bircham Bend" prior to November 1938.
Water-quality records: Water years 1953, 1957.

REVISED RECORDS.--WSP 1231: 1934. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 125 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 1, 1938, water-stage recorder at site 1.8 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Feb. 8. Records excellent. Diversion since 1941 from 186 mi^2 in Swift River basin and at times since 1931 from 97 mi^2 in Ware River basin for Boston metropolitan district; since 1950, for Chicopee; since 1952, for South Hadley; at times since 1966 for Worcester; at times since 1955 from 6.5 mi^2 in Ware River basin for Fitchburg. Diversion from Ludlow Reservoir for Springfield and, prior to 1952, for Chicopee. Flow regulated by powerplants upstream, by Quabbin Reservoir 21 mi upstream on Swift River since 1939, by Barre Falls Reservoir on Ware River since 1958, by Conant Brook Reservoir since 1966 (Reservoirs in Connecticut River basin), and by smaller reservoirs. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--57 years, 908 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,200 ft^3/s Sept. 21, 1938, by computation of flow over dam; minimum daily, 16 ft^3/s several times in 1929-31.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,880 ft^3/s Aug. 1, gage height, 7.39 ft; minimum daily, 182 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	182	446	455	576	240	713	703	402	754	666	2130	1300
2	496	403	399	641	241	627	701	329	905	531	1540	1010
3	461	388	403	655	266	596	685	564	882	419	1050	904
4	381	377	490	596	324	653	755	738	778	415	876	738
5	388	412	463	584	191	615	749	657	751	450	749	694
6	391	381	522	454	316	701	719	720	568	377	716	628
7	342	393	501	593	262	642	727	717	555	349	619	575
8	311	376	480	303	250	644	757	726	521	357	604	624
9	271	371	441	336	244	758	971	597	529	336	618	839
10	294	388	454	361	245	736	947	579	475	408	549	1130
11	232	335	506	360	268	717	838	552	418	330	531	1000
12	253	689	444	389	199	888	772	416	439	443	809	745
13	212	670	513	339	779	1750	745	476	331	414	727	675
14	206	662	511	338	1010	1430	713	488	483	436	538	586
15	311	536	533	304	919	1130	672	415	595	471	446	597
16	207	640	538	239	752	968	684	383	480	471	465	548
17	279	524	510	232	709	922	621	302	670	760	543	506
18	305	472	589	246	679	920	529	404	702	689	554	469
19	257	445	502	375	550	887	665	436	721	493	502	437
20	294	428	539	284	611	774	607	465	584	414	437	440
21	288	455	535	335	639	909	385	661	569	366	361	437
22	370	355	569	328	536	867	638	2220	505	417	515	425
23	421	374	647	316	612	858	563	1530	392	352	296	407
24	455	331	644	318	707	808	526	945	411	358	321	444
25	440	354	613	270	925	755	559	1060	731	298	441	591
26	473	351	538	271	938	746	475	783	522	282	661	642
27	468	377	541	290	884	660	443	740	534	432	858	764
28	438	378	562	295	831	715	382	707	541	408	721	1290
29	413	353	627	297	---	631	390	759	679	323	593	1080
30	492	392	514	277	---	673	468	782	673	360	506	954
31	380	---	404	282	---	673	---	751	---	418	1150	---
TOTAL	10711	13056	15987	11484	15127	25366	19389	21304	17698	13243	21426	21479
MEAN	346	435	516	370	540	818	646	687	590	427	691	716
MAX	496	689	647	655	1010	1750	971	2220	905	760	2130	1300
MIN	182	331	399	232	191	596	382	302	331	282	296	407

CAL YR 1984 TOTAL 503071 MEAN 1375 MAX 13100 MIN 124
WTR YR 1985 TOTAL 206270 MEAN 565 MAX 2220 MIN 182

01179500 WESTFIELD RIVER AT KNIGHTVILLE, MASS.

LOCATION.--Lat 42°17'16", long 72°51'53", Hampshire County, Hydrologic Unit 01080206, on left bank at Knightville, 0.2 mi downstream from Knightville Dam, 0.2 mi upstream from Sykes Brook, 2.4 mi upstream from Middle Branch, 3.5 mi north of Huntington, and at mile 29.7.

DRAINAGE AREA.--161 mi^2.

PERIOD OF RECORD.--Discharge: August 1909 to current year.
Water-quality records: Water year 1953.

REVISED RECORDS.--WSP 415: 1909-12. WSP 1001: 1941-43. WSP 1231: 1910, 1912, 1913(M), 1914-15, 1916-19(M), 1921-23(M), 1925-27(M), 1929-33(M), 1935(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Dec. 20, 1940. Datum of gage is 461.25 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Jan. 11, 1936, nonrecording gage at site 0.5 mi upstream at different datum. Jan. 11, 1935, to May 20, 1940, water-stage recorder at site 700 ft upstream at datum 10.57 ft higher. May 21 to Dec. 19, 1940, nonrecording gage at site 700 ft upstream at datum 18.75 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated by Knightville Reservoir since 1941 (Reservoirs in Connecticut River basin). Several observations of water temperatures and specific conductance were made during the year.

AVERAGE DISCHARGE.--76 years, 328 ft^3/s, 27.67 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,900 ft^3/s Sept. 21, 1938, gage height, 29.58 ft, from floodmarks, site and datum then in use, from rating curve extended above 3,800 ft^3/s on basis of slope-area measurements at gage heights 24.07 ft and 29.58 ft; minimum, 0.1 ft^3/s Apr. 3, 1965; minimum daily, 1.1 ft^3/s Apr. 2, 1965. Maximum discharge since construction of Knightville Reservoir in 1941, 6,660 ft^3/s Mar. 21, 1945, gage height, 7.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,700 ft^3/s Sept. 30, gage height, 5.63 ft; minimum, 1.3 ft^3/s May 17; minimum daily, 21 ft^3/s July 25, 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	32	49	245	540	55	364	291	117	122	138	266	95
2	98	46	166	541	55	360	199	110	117	92	260	78
3	129	44	151	507	56	321	192	147	92	72	161	55
4	78	43	109	235	97	280	192	275	84	65	84	47
5	61	84	95	183	111	245	195	181	73	58	57	42
6	49	207	88	184	96	245	447	171	83	54	44	37
7	42	118	85	186	84	212	456	230	82	59	37	60
8	37	80	80	171	84	173	460	189	72	55	33	94
9	35	66	82	129	89	229	528	147	80	46	71	64
10	33	69	85	86	88	257	339	130	77	42	117	88
11	31	120	87	68	84	261	271	119	62	38	67	120
12	31	459	106	69	81	556	248	111	66	35	48	80
13	29	312	111	96	302	1080	476	105	112	50	39	57
14	27	183	138	138	597	1500	566	98	107	62	32	47
15	26	130	199	149	477	1740	552	88	87	46	28	42
16	26	114	196	118	294	778	567	81	75	68	27	38
17	26	103	157	103	195	404	321	80	97	62	34	35
18	25	90	151	108	177	400	202	649	97	45	47	32
19	26	82	156	102	186	301	206	726	107	36	34	30
20	25	65	294	102	184	244	201	324	78	31	30	29
21	24	69	343	107	156	320	183	217	63	27	30	27
22	27	67	320	110	139	346	178	183	56	28	29	25
23	99	68	325	106	143	321	202	146	52	27	25	23
24	89	69	267	104	297	281	172	125	52	23	22	31
25	61	62	213	102	742	217	158	108	71	21	21	64
26	72	63	134	102	956	133	153	94	62	26	67	62
27	102	64	104	102	870	118	143	88	54	271	154	72
28	77	65	106	101	506	150	137	101	71	121	96	650
29	68	131	110	100	---	158	137	276	320	64	69	1590
30	64	390	319	99	---	273	128	164	232	45	49	2280
31	55	---	609	71	---	382	---	117	---	44	62	---
TOTAL	1604	3512	5631	4919	7201	12649	8500	5697	2803	1851	2140	5994
MEAN	51.7	117	182	159	257	408	283	184	93.4	59.7	69.0	200
MAX	129	459	609	541	956	1740	567	726	320	271	266	2280
MIN	24	43	80	68	55	118	128	80	52	21	21	23
MEAN†	51.7	120	197	148	258	432	250	184	93.5	59.7	69.2	227
CFSM†	.32	.75	1.22	.92	1.60	2.68	1.55	1.14	.58	.37	.43	1.41
IN†	.37	.83	1.41	1.06	1.67	3.09	1.73	1.32	.65	.43	.50	1.58

CAL YR 1984 TOTAL 164677 MEAN 450 MAX 3330 MIN 20 MEAN† 451 CFSM† 2.80 IN† 38.12
WTR YR 1985 TOTAL 62501 MEAN 171 MAX 2280 MIN 21 MEAN† 174 CFSM† 1.08 IN† 14.63

† Adjusted for change in contents in Knightville Reservoir.

01180500 MIDDLE BRANCH WESTFIELD RIVER AT GOSS HEIGHTS, MASS.

LOCATION.--Lat 42°15'31", long 72°52'23", Hampshire County, Hydrologic Unit 01080206, on right bank at upstream side of highway bridge at Goss Heights, 0.3 mi upstream from mouth, 0.7 mi downstream from Littleville Dam, and 1.7 mi north of Huntington.

DRAINAGE AREA.--52.7 mi^2.

PERIOD OF RECORD.--July 1910 to current year.

REVISED RECORDS.--WSP 415: 1910-13. WSP 781: 1933(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 399.30 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1930, datum was 2.00 ft higher, and June 25, 1930, to Sept. 30, 1964, datum was 1.00 ft higher. Prior to Sept. 8, 1912, nonrecording gage at same site.

REMARKS.--Estimated daily discharges: Feb. 3-5, 7-10. Records good. Some diurnal fluctuation at low flow prior to 1952 caused by mill upstream. Flow regulated by Littleville Lake (Reservoirs in Connecticut River basin) since 1965. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--75 years, 105 ft^3/s 27.06, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,900 ft^3/s Sept. 12, 1938, gage height, 11.61 ft, present datum, from rating curve extended above 3,200 ft^3/s on basis of mean of two contracted-opening measurements of peak flow; maximum gage height, 14.87 ft, present datum, Mar. 12, 1936, (ice jam); practically no flow Sept. 3, 22, Oct. 20, 1910, July 30, 1912, Oct. 26, 27, 1914. Maximum discharge since construction of Littleville Dam in 1965, 1,670 ft^3/s Mar. 26, 1980, gage height, 5.93 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 675 ft^3/s Mar. 12, gage height, 4.37 ft; minimum, 2.8 ft^3/s Oct. 1; minimum daily, 3.1 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	3.1	13	68	107	20	119	44	34	38	62	52	20
2	6.0	11	52	116	20	104	44	30	38	44	51	18
3	9.0	9.2	43	120	21	91	44	35	32	32	33	15
4	11	8.6	42	88	20	81	44	53	27	27	22	13
5	10	13	35	76	20	69	44	51	24	25	16	11
6	8.6	22	35	60	21	71	144	49	24	22	13	12
7	7.3	25	31	57	20	62	168	57	23	20	10	17
8	6.7	23	25	51	19	66	44	55	22	18	13	19
9	6.3	20	25	37	19	76	44	47	23	15	20	20
10	6.1	18	24	31	19	79	44	43	22	13	19	26
11	6.1	20	24	31	18	82	44	38	20	12	15	27
12	5.8	55	26	32	21	382	44	35	20	11	12	23
13	5.6	75	30	31	107	654	170	33	25	14	9.1	18
14	5.2	55	50	31	160	436	300	32	25	13	7.9	14
15	4.9	39	61	31	117	239	165	27	23	14	7.1	12
16	4.6	31	54	28	90	158	87	25	22	16	8.1	10
17	4.5	26	48	25	76	131	66	24	25	17	7.7	9.2
18	4.6	22	59	24	70	115	55	86	26	15	6.8	8.3
19	4.7	20	64	25	59	93	52	147	27	12	6.1	7.7
20	5.2	17	72	26	50	90	49	106	24	10	5.9	7.6
21	5.1	14	70	25	44	87	46	80	21	8.2	5.6	7.2
22	5.8	14	71	24	44	84	44	65	18	7.8	5.3	6.6
23	13	13	94	23	53	84	47	51	16	6.6	4.8	6.2
24	17	13	82	23	128	84	47	41	17	5.1	4.3	8.4
25	15	12	73	23	395	84	45	35	20	4.2	7.2	13
26	17	12	55	23	308	63	44	30	19	6.1	13	14
27	20	12	45	22	204	39	41	26	15	17	19	39
28	19	12	41	21	153	40	38	28	18	22	19	149
29	19	32	58	21	---	41	38	47	52	17	15	406
30	17	79	149	20	---	42	39	47	79	13	16	552
31	14	---	144	20	---	42	---	38	---	12	20	---
TOTAL	287.2	735.8	1750	1272	2296	3888	2125	1495	785	531.0	463.9	1509.2
MEAN	9.26	24.5	56.5	41.0	82.0	125	70.8	48.2	26.2	17.1	15.0	50.3
MAX	20	79	149	120	395	654	300	147	79	62	52	552
MIN	3.1	8.6	24	20	18	39	38	24	15	4.2	4.3	6.2
MEAN†	10.2	27.0	57.4	38.1	86.8	131	60.8	49.2	27.2	15.7	14.5	81.4
CFSM†	.19	.51	1.09	.72	1.65	2.49	1.15	.93	.52	.30	.28	1.54
IN†	.22	.57	1.26	.83	1.72	2.86	1.29	1.08	.58	.34	.32	1.72

CAL YR 1984 TOTAL 50591.3 MEAN 138 MAX 1340 MIN 3.0 MEAN† 138 CFSM† 2.62 IN† 35.70
WTR YR 1985 TOTAL 17138.1 MEAN 47.0 MAX 654 MIN 3.1 MEAN† 49.6 CFSM† .94 IN† 12.79

† Adjusted for change in contents in Littleville Lake.

01181000 WEST BRANCH WESTFIELD RIVER AT HUNTINGTON, MASS.

LOCATION.--Lat 42°14'14", long 72°53'46", Hampshire County, Hydrologic Unit 01080206, on left bank at Huntington, 0.4 mi downstream from Roaring Brook, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--94.0 mi^2.

PERIOD OF RECORD.--Discharge: September 1935 to current year.
Water-quality records: Water years 1957, 1967-74.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 388.60 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 29, Feb. 8, 9, 13. Records good. Prior to 1950, some diurnal fluctuation at low flow caused by small mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--50 years, 190 ft^3/s, 27.45 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft^3/s Aug. 19, 1955, gage height, 15.27 ft, from rating curve extended above 9,500 ft^3/s on basis of slope-area measurement of peak flow; minimum, 3.3 ft^3/s Aug. 9, 1955, Nov. 27, 1957.

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	1715	*8,470	*8.61	No other peak greater than base discharge.			

Minimum discharge, 8.2 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	8.6	25	75	135	39	181	133	59	81	69	279	46
2	15	29	56	216	41	166	134	56	74	49	90	33
3	25	27	50	161	41	145	143	89	55	42	54	28
4	19	25	66	102	40	101	145	128	47	52	40	26
5	16	48	50	104	38	125	189	89	44	44	33	24
6	13	74	44	95	39	131	193	91	53	36	29	28
7	12	44	52	89	41	110	175	120	48	43	26	49
8	12	35	44	73	41	126	168	94	45	42	41	39
9	12	31	45	55	43	163	187	78	55	34	50	38
10	12	32	39	66	40	153	149	72	48	31	35	93
11	12	50	40	70	39	166	130	67	41	28	30	62
12	16	235	49	61	48	1130	122	62	48	28	26	43
13	15	123	63	58	330	630	112	62	63	43	23	35
14	15	68	156	58	242	389	108	69	53	35	21	30
15	15	51	104	56	162	314	108	58	47	33	21	27
16	14	45	73	48	134	249	108	51	46	64	25	25
17	12	43	80	46	115	235	102	50	58	52	24	24
18	12	37	106	50	97	215	91	251	54	38	22	23
19	12	34	85	53	88	169	93	221	54	30	21	22
20	12	31	125	51	82	171	94	147	44	26	20	21
21	12	28	90	50	77	167	86	103	39	23	20	21
22	14	28	133	49	72	141	84	100	34	23	19	20
23	52	25	193	46	126	136	95	81	32	22	18	19
24	40	27	115	45	387	131	85	70	38	20	18	23
25	29	25	109	45	582	126	79	60	52	19	22	30
26	32	23	73	45	341	113	77	54	39	23	46	27
27	44	23	64	43	290	110	74	50	34	86	41	1830
28	34	23	62	42	217	121	72	66	46	46	30	877
29	31	145	165	41	---	148	70	122	168	31	24	329
30	30	145	282	40	---	134	64	76	115	25	29	195
31	27	---	170	39	---	119	---	59	---	29	60	---
TOTAL	624.6	1579	2858	2132	3832	6515	3470	2755	1655	1166	1237	4087
MEAN	20.1	52.6	92.2	68.8	137	210	116	88.9	55.2	37.6	39.9	136
MAX	52	235	282	216	582	1130	193	251	168	86	279	1830
MIN	8.6	23	39	39	38	101	64	50	32	19	18	19
CFSM	.21	.56	.98	.73	1.46	2.23	1.23	.95	.59	.40	.42	1.45
IN.	.25	.62	1.13	.84	1.52	2.58	1.37	1.09	.65	.46	.49	1.62

CAL YR 1984 TOTAL 90526.7 MEAN 247 MAX 6140 MIN 8.3 CFSM 2.63 IN. 35.83
WTR YR 1985 TOTAL 31910.6 MEAN 87.4 MAX 1830 MIN 8.6 CFSM .93 IN. 12.63

01183000 LITTLE RIVER AT OUTLET OF COBBLE MOUNTAIN RESERVOIR, NEAR WESTFIELD, MASS.

LOCATION.--Lat 42°07'34", long 72°53'37", Hampden County, Hydrologic Unit 01080206, at Cobble Mountain Dam, 7.5 mi west of Westfield, and at mile 13.0.

DRAINAGE AREA.--45.8 mi^2.

PERIOD OF RECORD.--Discharge: July 1905 to current year. Published as Westfield Little River near Blandford 1905-11, as Westfield Little River near Westfield 1912-35, and as Westfield Little River at outlet of Cobble Mountain Reservoir, near Westfield 1936-76.
Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 501: Drainage area. WDR MA-RI-80-1: 1979.

GAGE.--Venturi meters at outlet tunnel at powerhouse 2.4 mi downstream. Prior to Mar. 1, 1910, nonrecording gage at site 0.2 mi upstream, and Mar. 1, 1910, to Sept. 30, 1935, water-stage recorder at diversion dam 2.8 mi downstream.

REMARKS.--Discharge computed on basis of flow through venturi meters and flow over reservoir spillway or through bypass tunnel. Flow regulated by Borden Brook Reservoir since 1910 and Cobble Mountain Reservoir since August 1931 (Reservoirs in Connecticut River basin).

COOPERATION.--Records provided by Springfield Board of Water Commissioners.

AVERAGE DISCHARGE.--75 years (water years 1911-85), 89.9 ft^3/s, 26.66 in/yr, adjusted for storage.

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

Month	Mean†	Per square mile†	Runoff in inches†
October	-30.7	-0.67	0.77
November	14.8	.32	.36
December	37.0	.81	.93
Calendar year 1984	100	2.18	29.81
January	7.19	.16	.18
February	50.8	1.11	1.15
March	86.5	1.89	2.18
April	63.7	1.39	1.55
May	51.9	1.13	1.31
June	23.2	.51	.57
July	14.6	.32	.37
August	28.9	.63	.73
September	145	3.17	3.54
Water year 1985	40.8	.89	12.09

† Adjusted for change in contents in Borden Brook and Cobble Mountain Reservoirs.
Note.--Negative figures indicate that evaporation and seepage from reservoirs exceeded inflow.

01183500 WESTFIELD RIVER NEAR WESTFIELD, MASS.

LOCATION.--Lat 42°06'24", long 72°41'58", Hampden County, Hydrologic Unit 01080206, on left bank 0.7 mi downstream from Great Brook, 3 mi east of Westfield, and 8.1 mi upstream from mouth.

DRAINAGE AREA.--497 mi^2.

PERIOD OF RECORD.--Discharge: June 1914 to current year.
Water-quality records: Water years 1952-53, 1957 1967-74.

REVISED RECORDS.--WSP 601: 1924(M). WSP 756: Drainage area. WSP 1051: 1919-21(M), 1925(M). WSP 1231: 1915-16(M), 1920.

GAGE.--Water-stage recorder. Datum of gage is 98.25 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 3, 1933, on right bank at same datum.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated by Borden Brook Reservoir, Cobble Mountain Reservoir since 1931, Knightville Reservoir since 1941, and Littleville Lake since 1965 (Reservoirs in Connecticut River basin). High flow slightly affected by retarding reservoirs since 1963. Diversion from Little River for municipal supply of Springfield. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--71 years, 923 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,300 ft^3/s Aug. 19, 1955, gage height, 34.2 ft, from floodmarks, from rating curve extended above 18,000 ft^3/s on basis of computations of flow over dam at gage heights 27.20 ft, 29.40 ft, and 34.2 ft; minimum, 9 ft^3/s Oct. 2, 1921; minimum daily, 40 ft^3/s Dec. 28, 29, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,600 ft^3/s Sept. 27, gage height, 11.41 ft; minimum, 80 ft^3/s Oct. 1; minimum daily, 90 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	90	169	627	978	175	816	720	271	307	446	184	416
2	168	164	385	924	196	761	536	265	315	311	1750	372
3	185	142	371	997	182	716	532	352	271	249	3280	369
4	234	172	394	646	163	594	521	602	217	208	2460	370
5	169	368	343	488	202	572	536	457	210	201	2980	343
6	159	438	277	423	261	588	849	432	224	192	2890	349
7	132	377	286	456	224	518	884	534	212	203	1290	339
8	122	309	239	394	216	517	748	497	211	165	976	341
9	138	260	252	448	240	624	1020	393	215	175	1270	626
10	203	195	239	372	199	653	748	355	212	155	1580	2080
11	134	252	253	234	210	659	588	294	185	141	1610	1830
12	119	660	254	230	234	2110	549	280	174	120	1280	1330
13	116	785	309	255	736	2950	811	285	221	185	979	951
14	133	477	383	270	1170	2550	945	294	244	170	796	787
15	117	362	464	328	1060	2490	903	258	216	277	702	736
16	114	291	434	410	664	1750	946	228	201	213	627	1090
17	114	284	400	246	566	975	706	216	227	265	566	1680
18	113	257	402	247	430	913	463	615	267	178	609	1640
19	113	225	418	271	451	790	441	1300	244	158	672	1890
20	112	256	486	253	414	664	443	737	217	141	672	1660
21	112	266	611	285	384	673	423	526	197	119	733	2260
22	149	171	661	277	369	697	407	542	150	153	630	2550
23	184	143	752	248	400	654	430	398	149	138	565	2370
24	279	167	639	242	714	627	413	330	218	112	551	903
25	214	176	526	241	1800	584	377	276	254	127	605	242
26	223	164	447	236	1890	496	361	251	219	117	550	223
27	218	157	396	234	1550	364	343	223	153	184	512	2080
28	256	162	444	213	1180	405	320	251	190	352	470	3130
29	219	318	360	236	---	449	326	465	468	191	457	2470
30	201	615	695	214	---	494	295	419	602	174	475	2980
31	188	---	915	211	---	569	---	287	---	197	454	---
TOTAL	5028	8782	13662	11507	16280	28222	17584	12633	7190	6017	33175	38407
MEAN	162	293	441	371	581	910	586	408	240	194	1070	1280
MAX	279	785	915	997	1890	2950	1020	1300	602	446	3280	3130
MIN	90	142	239	211	163	364	295	216	149	112	184	223

CAL YR 1984 TOTAL 452241 MEAN 1236 MAX 12100 MIN 77
WTR YR 1985 TOTAL 198487 MEAN 544 MAX 3280 MIN 90

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.
(National stream-quality accounting network and radiochemical station)

LOCATION.--Lat 41°59'14", long 72°36'21", Hartford County, Hydrologic Unit 01080205, on right bank just upstream from Enfield Dam, 1 mi downstream from Thompsonville, 3 mi downstream from Massachusetts-Connecticut State line, and at mile 68.2.

DRAINAGE AREA.--9,660 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 741: 1932. WDR MA-RI-77-1: 1976. WDR MA-RI-83-1: Drainage area, 1982.

GAGE.--Water-stage recorders on river and on canal of The Dexter Corp. Datum of gage is 38.48 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 9-12. Records good except those for estimated daily discharges, which are fair. Discharge includes water diverted around station by canal of The Dexter Corp. Flow regulated by powerplants, by diversion from Chicopee River basin, and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, Quabbin Reservoir, (Reservoirs in Connecticut River basin), and other reservoirs, combined usable capacity, about 107 billion cu ft.

AVERAGE DISCHARGE.--56 years, 16,460 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 282,000 ft³/s Mar. 20, 1936, gage height, 16.6 ft, from floodmarks; minimum daily, 968 ft³/s Oct. 20, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50,800 ft³/s Mar. 14, gage height, 4.29 ft; minimum daily, 2,230 ft³/s Oct. 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	2880	3840	11100	30700	7140	24100	26800	16600	10200	7590	13100	4710
2	7360	3930	10300	29100	5840	18400	24500	15600	7090	8930	13000	3700
3	7770	3120	12400	30700	4130	19900	20900	15100	6340	8720	10000	3910
4	9050	3650	12400	25900	4220	18200	20200	13900	8280	5560	7290	5280
5	7380	4210	11200	18300	5800	18100	16900	13300	7520	3840	4900	6200
6	5500	8760	9360	15000	5350	12500	20200	11000	6640	4960	4480	8210
7	3080	10900	9240	13500	5480	12600	22800	14400	6120	5050	4870	14200
8	2380	11400	5850	12000	7200	14400	28400	16600	7130	4430	5550	15400
9	5100	10900	4530	10700	10900	17000	29900	17900	6750	5550	4710	9710
10	6420	7160	4220	9710	5920	16700	25300	17300	5580	5940	3460	11300
11	5450	5350	7720	8700	4690	17200	21500	17500	4690	6470	3270	10300
12	5250	8250	9530	8220	7050	20500	18600	15200	5330	6170	3140	6830
13	2910	12300	10300	7930	12100	45300	18000	13100	9610	6720	3110	6450
14	2290	14000	10200	7470	14900	48600	18700	12600	7330	6140	3240	4550
15	2240	15700	12800	8790	15600	43800	18600	12500	7510	5520	4450	3280
16	2230	14800	12400	10200	14200	33700	16700	12700	7800	6720	5230	3370
17	2240	12800	11200	9280	9840	25600	17800	13000	8520	7600	3200	5430
18	4350	7210	10100	8490	8610	21700	25800	10400	9290	7070	3090	4490
19	3970	8120	11800	7950	9310	19200	27900	16800	11700	6650	3080	4070
20	2480	8050	14000	5940	9430	18800	25100	21300	10300	4940	3100	4130
21	2330	8090	14400	6110	9060	18200	24100	21000	9430	3220	3110	4630
22	3130	7070	13200	9740	9580	18000	22400	22100	8320	3320	3120	3140
23	6860	6060	10500	9200	10800	18600	21700	19100	5740	4390	3120	3340
24	5640	6920	10200	8530	10200	16900	25000	16000	5500	4200	3060	5570
25	4890	6790	9130	8540	14300	12700	24500	13100	7870	3900	3080	5840
26	3810	6620	9790	8310	26000	14400	24600	9330	6780	4420	3540	8320
27	3950	6660	10900	6410	33900	16400	24300	5140	5100	5810	7520	12700
28	2690	7210	10700	5760	28300	16400	24200	5680	3960	5300	6330	24600
29	4920	5530	6600	7060	---	16700	24100	11400	5040	3170	5060	18600
30	6080	6790	15200	7150	---	24300	19500	12800	7690	3690	4530	17200
31	3900	---	29100	6950	---	29800	---	12400	---	5510	4440	---
TOTAL	138530	242190	340370	362340	309850	668700	679000	444850	219160	171500	153180	239460
MEAN	4469	8073	10980	11690	11070	21570	22630	14350	7305	5532	4941	7982
MAX	9050	15700	29100	30700	33900	48600	29900	22100	11700	8930	13100	24600
MIN	2230	3120	4220	5760	4130	12500	16700	5140	3960	3170	3060	3140

CAL YR 1984 TOTAL 7644970 MEAN 20890 MAX 176000 MIN 2230
WTR YR 1985 TOTAL 3969130 MEAN 10870 MAX 48600 MIN 2230

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1966 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to current year.
WATER TEMPERATURES: October 1955 to September 1956, October 1973 to current year.
INSTRUMENTATION.--Water-quality monitor since October 1973.
REMARKS.--Interruptions in the record are due to malfunctions of the instrument. Instantaneous records are representative of the cross section while continuous records are based on point samples. The instantaneous record values will not necessarily fall within the corresponding daily range of the continuous records.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 246 microsiemens Jan. 26, 1984; minimum, 46 microsiemens Apr. 2, 1977.
WATER TEMPERATURES: Maximum, 36.5°C Aug. 30, 1977; minimum, 0.0°C on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 177 microsiemens Oct. 2; minimum, 70 microsiemens July 5.
WATER TEMPERATURES: Maximum, 28.5°C Aug. 15,16; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
23...	1000	6990	165	7.5	18.5	16.0	1.2	9.0	91	4000	720
NOV											
15...	1520	15000	135	7.5	9.5	8.0	1.1	11.2	95	2100	160
DEC											
18...	0930	9880	122	7.4	6.0	3.5	1.5	13.2	100	780	160
JAN											
14...	1040	7400	112	6.9	2.0	0.0	2.0	13.8	96	1200	500
MAR											
13...	0945	47400	89	7.1	8.5	2.0	2.0	13.4	99	440	2800
APR											
16...	1015	16800	105	7.2	22.0	9.0	0.8	12.2	107	200	35
MAY											
14...	0830	12000	104	7.1	21.0	16.5	0.9	8.9	92	280	300
JUN											
19...	0845	12000	122	7.0	24.0	21.0	0.7	8.0	91	230	260
JUL											
08...	0915	4880	121	7.4	25.0	24.0	0.6	8.1	97	480	150
AUG											
14...	0915	3110	124	7.4	28.0	26.0	1.0	8.2	101	170	21
SEP											
05...	0830	5270	123	6.8	24.0	22.0	1.8	7.7	89	200	130

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT											
23...	49	--	16	2.2	--	--	--	15	15	--	--
NOV											
15...	43	9	14	1.9	7.8	1.5	34	14	12	0.1	4.4
DEC											
18...	38	--	12	1.9	--	--	--	12	11	--	--
JAN											
14...	32	11	9.8	1.7	7.5	1.4	21	11	11	<0.1	6.1
MAR											
13...	26	--	8.2	1.4	--	--	--	9.7	9.2	--	--
APR											
16...	31	--	9.8	1.5	--	--	--	9.7	8.4	--	--
MAY											
14...	33	10	11	1.4	5.0	1.2	23	12	9.6	0.2	4.8
JUN											
19...	--	--	--	--	--	--	--	11	10	--	--
JUL											
08...	40	12	13	1.7	7.7	1.5	28	12	12	<0.1	3.4
AUG											
14...	35	--	11	1.8	--	--	--	11	11	--	--
SEP											
05...	35	--	11	1.8	--	--	--	11	11	--	--

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
OCT 23...	97	0.13	1830	102	0.38	0.02	0.40	--	0.25	--	0.15
NOV 15...	78	0.11	3160	104	0.39	0.01	0.40	0.31	0.12	0.07	0.48
DEC 18...	70	0.09	1870	86	--	<0.01	0.40	--	0.46	--	0.04
JAN 14...	62	0.08	1240	83	0.44	0.06	0.50	0.39	0.24	0.23	0.06
MAR 13...	62	0.08	7940	--	--	<0.01	0.40	--	0.08	--	0.92
APR 16...	54	0.07	2450	65	0.28	0.02	0.30	--	0.12	--	0.08
MAY 14...	64	0.09	2070	75	--	<0.01	0.30	0.30	0.28	0.29	0.32
JUN 19...	85	0.12	2750	102	0.28	0.02	0.30	--	0.26	--	0.14
JUL 08...	77	0.1	1010	99	0.39	0.01	0.40	0.01	--	0.39	0.51
AUG 14...	77	0.1	650	85	--	<0.01	0.20	--	0.04	--	0.46
SEP 05...	77	0.1	1100	96	--	<0.01	0.30	--	0.20	--	0.5

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
OCT 23...	0.4	0.8	0.17	0.12	--	--	--	--	--	<1	<1
NOV 15...	0.6	1.0	0.04	0.04	0.01	20	<1	18	<0.5	1	<1
DEC 18...	0.5	0.9	0.14	0.10	--	--	--	--	--	<1	<1
JAN 14...	0.3	0.8	0.03	0.03	0.01	30	<1	19	<0.5	--	<1
MAR 13...	1.0	1.4	0.02	<0.01	--	--	--	--	--	1	<1
APR 16...	0.2	0.5	0.04	0.02	--	--	--	--	--	1	<1
MAY 14...	0.6	0.9	0.06	0.04	0.03	50	<1	15	<0.5	8	<1
JUN 19...	0.4	0.7	0.07	0.01	--	--	--	--	--	<1	1
JUL 08...	0.6	1.0	0.02	<0.01	0.01	20	<1	19	<0.5	<1	<1
AUG 14...	0.5	0.7	0.05	0.02	--	--	--	--	--	<1	1
SEP 05...	0.7	1.0	0.11	0.10	--	--	--	--	--	1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT 23...	8	<1	--	6	3	580	--	<5	<5	--	--
NOV 15...	<1	<1	<3	3	1	310	56	<5	<5	<4	11
DEC 18...	<1	<1	--	3	2	310	--	<5	<5	--	--
JAN 14...	2	<1	<3	--	9	290	82	--	<5	<4	32
MAR 13...	6	<1	--	9	2	1900	--	180	<5	--	--
APR 16...	<1	1	--	4	2	460	--	<5	<5	--	--
MAY 14...	11	<1	<3	4	2	340	57	<5	<5	6	22
JUN 19...	4	<1	--	10	4	490	--	<5	<5	--	--
JUL 08...	4	3	<3	8	6	220	23	10	<5	<4	6
AUG 14...	<1	1	--	11	7	800	--	6	<5	--	--
SEP 05...	1	2	--	10	6	280	--	8	<5	--	--

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 23...	--	--	6	3	--	--	--	--	10	--	3.7
NOV 15...	<0.1	<10	6	4	<1	<1	68	<6	10	4	3.7
DEC 18...	--	--	5	4	--	--	--	--	20	11	3.2
JAN 14...	0.4	<10	--	3	<1	<1	48	<6	20	13	3.4
MAR 13...	--	--	7	3	--	--	--	--	<10	8	3.3
APR 16...	--	--	2	1	--	--	--	--	20	14	3.2
MAY 14...	0.2	<10	4	<1	<1	<1	54	<6	<10	7	3.6
JUN 19...	--	--	--	3	--	--	--	--	20	20	4.5
JUL 08...	0.3	<10	7	9	<1	2	65	<6	<10	7	3.9
AUG 14...	--	--	1	4	--	--	--	--	20	10	11
SEP 05...	--	--	5	6	--	--	--	--	20	13	5.0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
NOV 15...	1520	<1.4	<0.4	2.4	<0.4	2.0	<0.4	0.06	0.07
APR 16...	1015	<0.9	<0.4	1.8	<0.4	1.6	<0.4	0.05	0.06

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 15...	1520	15000	13	527	--
JAN 14...	1040	7400	17	340	--
MAY 14...	0830	12000	6	194	94
JUL 08...	0915	4880	5	66	100

< ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN.

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	161	156	158	142	126	134	113	107	110
2	177	160	168	161	154	157	125	117	120	110	104	108
3	160	150	153	---	---	---	119	116	118	104	100	102
4	161	154	158	162	157	159	121	118	119	101	100	100
5	161	159	160	---	---	---	123	120	121	104	101	102
6	161	158	159	164	152	157	129	123	125	107	104	105
7	---	---	---	153	149	151	143	131	139	111	107	109
8	---	---	---	152	149	150	138	134	136	110	109	109
9	167	163	165	152	148	150	138	134	136	116	110	113
10	165	160	162	150	147	149	138	136	137	117	110	113
11	164	160	162	151	147	149	138	135	136	116	110	113
12	167	159	164	157	148	153	136	129	133	119	113	117
13	---	---	---	152	139	145	131	129	130	122	118	120
14	---	---	---	138	132	135	131	130	131	124	121	122
15	---	---	---	137	131	134	131	125	128	124	121	122
16	---	---	---	137	131	135	126	118	121	124	121	123
17	---	---	---	131	128	129	120	117	118	124	120	122
18	172	160	169	133	130	132	122	120	121	126	123	124
19	---	---	---	140	133	137	125	121	123	135	126	131
20	---	---	---	138	135	137	121	117	119	140	133	136
21	---	---	---	138	136	137	117	114	115	141	133	137
22	---	---	---	138	135	137	149	116	128	135	129	132
23	171	163	169	137	134	136	150	130	139	129	127	128
24	169	165	167	139	132	136	130	119	123	133	129	132
25	168	163	166	136	131	134	123	120	121	132	130	131
26	169	161	166	136	134	134	124	120	122	136	132	134
27	172	163	168	137	133	135	121	119	120	137	135	136
28	---	---	---	137	133	136	121	120	121	142	136	139
29	168	159	165	137	134	136	128	121	124	138	134	135
30	166	158	162	145	138	143	134	121	129	134	132	133
31	159	156	157	---	---	---	120	112	115	134	132	133
MONTH	177	150	163	164	128	142	150	112	126	142	100	122

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	135	133	134	99	93	96	107	105	105	100	94	98
2	150	136	142	97	93	95	106	100	104	100	93	96
3	155	147	151	96	94	95	103	100	102	109	96	103
4	158	155	156	95	94	94	105	102	103	106	98	101
5	156	143	150	119	95	104	110	105	107	104	99	102
6	144	137	141	119	111	115	110	106	108	108	96	100
7	143	139	141	117	106	112	108	102	104	110	99	107
8	143	141	142	108	103	104	105	101	102	104	96	100
9	143	132	136	110	105	107	103	102	103	97	90	94
10	139	132	136	107	105	106	105	101	103	99	92	96
11	141	135	137	106	103	104	105	102	104	104	99	102
12	158	141	147	112	102	106	107	103	104	102	97	99
13	170	148	163	106	81	89	109	107	107	102	97	99
14	170	133	152	81	78	80	108	103	106	106	100	103
15	131	121	124	82	79	81	105	102	104	108	100	105
16	123	116	120	84	79	81	110	105	107	103	97	101
17	125	121	123	86	81	84	110	106	108	104	96	100
18	127	124	126	89	86	87	108	102	104	116	96	106
19	128	126	127	94	89	91	106	103	104	116	92	104
20	128	124	126	96	93	94	106	103	105	97	90	93
21	127	124	125	99	95	96	107	99	104	96	90	93
22	128	125	126	102	97	98	101	97	99	97	93	95
23	128	123	125	98	97	98	99	94	97	101	98	100
24	126	123	125	101	98	100	99	91	94	103	100	101
25	126	108	119	106	101	103	93	91	92	109	103	105
26	106	101	104	107	102	105	96	92	94	112	110	111
27	103	100	101	106	104	105	95	92	93	117	93	112
28	102	98	101	107	104	106	98	91	95	123	116	120
29	---	---	---	111	107	110	93	89	91	125	113	117
30	---	---	---	110	104	107	98	90	94	113	105	110
31	---	---	---	106	104	105	---	---	---	105	99	101
MONTH	170	98	132	119	78	99	110	89	102	125	90	102

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	105	101	103	121	118	119	130	110	120	121	115	118
2	110	105	108	122	120	120	112	110	111	115	113	114
3	115	107	111	121	120	121	113	111	112	118	113	115
4	115	112	114	123	120	121	114	111	113	124	117	121
5	123	113	117	123	70	99	115	111	114	127	122	124
6	127	119	123	120	114	117	120	115	118	130	124	128
7	122	118	120	122	115	118	121	118	120	130	127	129
8	125	119	121	121	114	119	125	121	123	128	124	126
9	123	117	119	118	112	114	126	123	125	133	126	129
10	124	117	120	121	112	116	127	124	126	132	127	131
11	125	118	121	123	115	118	---	---	---	133	130	131
12	127	117	122	117	113	115	---	---	---	131	129	131
13	130	122	125	123	116	120	---	---	---	133	129	132
14	128	124	126	125	117	120	---	---	---	131	128	129
15	130	125	128	126	108	121	117	112	114	---	---	---
16	128	122	126	125	120	123	119	113	116	---	---	---
17	128	118	125	124	120	122	---	---	---	129	121	126
18	121	115	118	122	119	120	---	---	---	123	120	121
19	123	120	121	123	119	121	---	---	---	128	122	125
20	125	121	123	124	118	121	---	---	---	133	101	126
21	127	122	125	---	---	---	---	---	---	138	131	135
22	125	122	123	---	---	---	---	---	---	---	---	---
23	125	122	123	127	119	124	---	---	---	---	---	---
24	128	120	124	121	118	120	---	---	---	138	131	135
25	129	120	125	121	117	119	127	107	114	139	131	135
26	122	119	120	120	117	119	122	112	118	138	134	136
27	123	119	121	127	119	124	119	114	117	142	135	137
28	123	119	121	124	121	123	117	113	115	143	125	129
29	124	119	122	---	---	---	116	113	114	127	116	120
30	125	119	121	124	119	122	119	113	116	126	117	121
31	---	---	---	123	117	120	122	114	118	---	---	---
MONTH	130	101	121	127	70	119	130	107	117	143	101	127
YEAR	177	70	121									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985--Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	.5	.5	.5	2.0	1.0	1.5	7.0	6.5	7.0	14.5	13.0	13.5
2	.5	.5	.5	3.0	2.0	2.5	6.5	6.0	6.0	13.5	13.0	13.0
3	.5	.0	.5	3.0	2.0	2.5	6.0	5.5	6.0	13.0	12.0	12.5
4	.5	.0	.5	2.5	1.5	1.5	7.0	5.5	6.0	13.5	11.5	12.5
5	.5	.0	.5	1.5	1.0	1.0	8.0	6.5	7.5	13.0	12.5	12.5
6	.5	.0	.0	1.0	.5	1.0	8.0	7.5	8.0	13.0	12.5	12.5
7	.5	.0	.5	1.0	.5	1.0	8.0	7.0	7.5	13.5	12.5	13.0
8	.5	.0	.0	2.0	1.0	1.5	8.5	7.0	8.0	13.5	12.0	13.0
9	.5	.0	.0	3.0	1.5	2.5	8.0	7.0	7.5	13.5	12.5	13.0
10	.5	.0	.5	3.5	2.0	3.0	8.0	6.5	7.0	15.0	12.5	14.0
11	.5	.0	.5	3.5	2.5	3.0	8.0	7.0	7.5	15.5	14.0	15.0
12	.5	.5	.5	4.0	3.5	3.5	9.0	7.0	8.0	15.5	15.0	15.0
13	.5	.5	.5	3.5	2.0	2.5	8.5	7.5	8.0	17.0	15.5	16.0
14	.5	.0	.5	2.0	1.5	2.0	8.0	7.5	8.0	17.5	16.5	17.0
15	.5	.0	.5	2.0	1.5	1.5	9.0	7.5	8.5	17.0	16.5	16.5
16	1.0	.0	.5	2.0	1.0	1.5	10.5	9.0	9.5	17.0	16.5	16.5
17	1.5	.5	1.0	3.0	1.5	2.0	10.5	9.5	10.0	17.0	16.5	16.5
18	2.0	1.0	1.5	3.0	2.0	2.5	10.0	9.0	9.0	16.5	16.0	16.5
19	2.5	1.5	2.0	3.0	2.0	2.5	9.5	8.5	9.0	16.5	15.5	16.0
20	2.5	2.0	2.0	4.0	2.5	3.5	10.0	9.0	9.5	17.0	15.0	16.0
21	2.5	2.0	2.5	4.5	3.0	4.0	10.5	9.0	10.0	17.5	16.0	16.5
22	3.0	2.5	3.0	4.5	3.5	4.0	11.0	9.5	10.5	17.5	16.5	17.0
23	3.5	3.0	3.0	4.5	4.0	4.0	11.0	10.0	10.5	18.0	16.5	17.5
24	4.5	3.0	4.0	5.0	4.0	4.5	10.0	9.5	10.0	18.0	16.5	17.5
25	4.5	3.5	4.0	5.0	4.0	4.5	11.5	9.5	10.5	19.0	17.5	18.0
26	3.5	2.5	3.0	5.5	4.5	5.0	12.5	10.5	11.5	19.5	18.0	19.0
27	2.5	2.0	2.5	6.0	5.0	5.5	12.5	12.0	12.0	20.5	18.5	19.5
28	2.0	1.5	1.5	7.5	6.0	6.5	12.5	11.5	12.0	20.5	19.0	20.0
29	---	---	---	9.0	7.0	8.0	13.0	11.5	12.0	19.5	18.0	19.0
30	---	---	---	8.5	8.0	8.0	14.0	12.0	13.0	19.5	18.5	19.0
31	---	---	---	7.5	7.0	7.5	---	---	---	19.0	18.5	19.0
MONTH	4.5	.0	1.5	9.0	.5	3.5	14.0	5.5	9.0	20.5	11.5	16.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.0	18.5	19.5	22.0	20.0	21.0	24.5	23.0	23.5	21.5	20.0	20.5
2	21.0	19.0	20.0	22.5	21.0	22.0	23.5	23.0	23.5	21.5	21.0	21.0
3	21.5	20.0	21.0	23.5	22.0	22.5	24.5	23.0	24.0	22.0	20.5	21.5
4	21.5	20.0	21.0	23.5	22.0	23.0	25.5	23.5	24.5	23.0	21.5	22.5
5	20.5	19.0	20.0	23.5	23.0	23.5	25.5	24.0	25.0	23.0	22.0	23.0
6	20.0	19.0	19.5	24.0	23.5	23.5	25.5	25.0	25.0	24.0	22.5	23.5
7	20.5	18.5	20.0	24.5	23.5	24.0	25.5	25.0	25.0	23.5	23.0	23.0
8	20.0	19.0	19.0	24.5	23.5	24.0	25.5	24.5	25.0	23.0	22.0	22.5
9	19.5	18.5	19.0	25.0	24.0	24.5	26.5	25.0	26.0	22.5	21.0	22.0
10	21.0	19.0	20.0	25.5	24.0	25.0	27.0	26.0	26.5	21.5	21.0	21.0
11	21.5	20.0	21.0	26.0	25.0	25.5	---	---	---	21.0	19.5	20.5
12	21.5	20.0	20.5	25.5	24.5	25.0	---	---	---	20.0	19.0	19.5
13	20.0	19.5	20.0	26.0	24.0	25.0	---	---	---	19.0	18.5	18.5
14	20.0	19.0	19.5	25.5	24.5	25.0	---	---	---	19.0	18.0	18.5
15	20.0	18.5	19.5	25.0	24.5	25.0	28.5	27.0	28.0	---	---	---
16	20.0	19.0	19.5	25.5	24.5	25.0	28.5	27.5	28.0	---	---	---
17	21.0	19.0	20.0	26.5	25.0	25.5	---	---	---	19.5	18.5	19.0
18	21.0	20.0	20.5	26.5	25.0	26.0	---	---	---	19.5	19.0	19.5
19	22.0	20.5	21.0	27.0	25.5	26.0	---	---	---	20.5	19.0	20.0
20	22.0	20.5	21.5	27.0	25.5	26.5	---	---	---	21.0	20.0	20.5
21	22.5	21.0	21.5	---	---	---	---	---	---	22.0	21.0	21.5
22	22.5	21.0	22.0	---	---	---	---	---	---	---	---	---
23	22.5	21.5	22.0	26.5	26.0	26.5	---	---	---	---	---	---
24	22.5	22.0	22.5	26.0	25.5	25.5	---	---	---	20.0	20.0	20.0
25	22.0	21.0	21.5	25.5	25.0	25.5	24.0	23.5	24.0	21.0	20.0	20.5
26	21.5	20.5	21.0	25.5	25.0	25.5	23.5	22.5	23.5	20.0	19.0	19.5
27	20.5	19.0	19.5	26.5	25.0	25.5	24.5	23.5	24.0	19.5	19.0	19.5
28	19.5	19.0	19.0	26.5	25.5	26.0	24.5	23.5	24.5	19.0	18.0	18.5
29	19.0	19.0	19.0	---	---	---	24.5	23.5	24.0	18.0	17.0	17.5
30	20.5	18.5	19.5	27.0	25.0	26.0	24.0	22.0	23.0	18.0	17.0	17.5
31	---	---	---	26.0	24.5	25.0	22.0	20.0	21.0	---	---	---
MONTH	22.5	18.5	20.5	27.0	20.0	25.0	28.5	20.0	24.5	24.0	17.0	20.5
YEAR	28.5	.0	11.5									

01185500 WEST BRANCH FARMINGTON RIVER NEAR NEW BOSTON, MASS.

LOCATION.--Lat 42°04'45", long 73°04'24", Berkshire County, Hydrologic Unit 01080207, on left bank 5 ft downstream from highway bridge, 0.3 mi downstream from Clam River, 1 mi south of New Boston, and at mile 65.0.

DRAINAGE AREA.--91.7 mi^2.

PERIOD OF RECORD.--May 1913 to current year. Prior to October 1948, published as Farmington River near New Boston.

REVISED RECORDS.--WSP 641: 1924(M). WSP 781: 1928(M). WSP 1231: 1914. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 758.21 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 6 to Feb. 25. Records good except those for winter period, which are poor. Flow regulated by Otis Reservoir 7.0 mi upstream on Fall River (Reservoirs in Connecticut River basin). High flow slightly affected by retarding reservoirs since 1966. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--72 years, 182 ft^3/s, 26.95 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,300 ft^3/s Aug. 19, 1955, gage height, 14.06 ft, from rating curve extended above 9,600 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 2.4 ft^3/s Aug. 20, 21, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,430 ft^3/s Sept. 27, gage height, 8.42 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	8.6	28	69	105	32	138	105	47	95	97	512	67
2	34	29	60	112	34	115	118	45	78	75	217	49
3	30	30	57	96	35	98	113	105	61	60	129	42
4	21	22	76	85	34	82	115	110	48	61	83	40
5	13	53	59	78	32	102	134	80	46	55	61	40
6	11	58	61	75	33	99	133	90	54	50	47	60
7	11	46	157	72	35	94	122	140	46	60	41	90
8	10	39	287	70	34	99	147	112	51	51	155	66
9	12	34	270	80	33	110	159	89	63	44	103	104
10	15	36	267	70	31	105	129	76	52	40	70	150
11	16	48	270	68	30	109	113	68	41	38	54	136
12	15	201	260	65	45	558	106	63	51	36	48	89
13	139	120	297	62	250	511	93	61	65	60	40	71
14	130	87	301	62	220	367	92	54	55	43	39	59
15	19	67	285	60	150	290	89	44	44	47	37	48
16	18	59	275	52	120	207	88	42	50	56	39	42
17	20	50	273	50	100	190	88	42	89	54	38	39
18	18	43	263	55	86	145	79	134	81	44	33	36
19	17	86	267	56	78	118	75	157	70	38	31	31
20	115	51	270	54	70	110	75	127	57	35	30	29
21	176	43	202	53	64	102	72	103	54	31	28	29
22	246	31	86	51	60	92	78	141	45	41	27	28
23	270	30	100	50	62	88	93	95	41	35	25	27
24	251	29	87	49	140	85	85	73	40	29	24	28
25	243	28	68	48	310	81	76	59	45	25	34	46
26	249	28	75	48	264	74	72	48	41	47	41	262
27	127	26	74	47	221	72	68	45	39	93	39	1600
28	35	25	100	46	167	77	60	79	61	58	38	1310
29	35	76	112	44	---	87	56	110	158	43	32	755
30	34	80	125	32	---	87	50	82	141	38	47	424
31	31	---	107	31	---	84	---	63	---	101	93	---
TOTAL	2369.6	1583	5260	1926	2770	4576	2883	2584	1862	1585	2235	5797
MEAN	76.4	52.8	170	62.1	98.9	148	96.1	83.4	62.1	51.1	72.1	193
MAX	270	201	301	112	310	558	159	157	158	101	512	1600
MIN	8.6	22	57	31	30	72	50	42	39	25	24	27
MEAN†	26.0	65.5	84.6	59.8	114	180	115	98.2	72.0	59.5	81.9	201
CFSM†	.28	.71	.92	.65	1.24	1.96	1.25	1.07	.79	.65	.89	2.19
IN†	.33	.80	1.06	.75	1.30	2.26	1.40	1.23	.88	.75	1.03	2.44

CAL YR 1984 TOTAL 86908.1 MEAN 237 MAX 5760 MIN 7.4 MEAN† 236 CFSM† 2.57 IN† 35.02
WTR YR 1985 TOTAL 35430.6 MEAN 97.1 MAX 1600 MIN 8.6 MEAN† 96.1 CFSM† 1.05 IN† 14.23

† Adjusted for change in contents in Otis Reservoir.

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 flood 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.

01163500. BIRCH HILL RESERVOIR on Millers River, 1 mi east of South Royalston, Mass., completed in 1941 for flood control, has usable capacity of 2,180,000,000 ft^3. Records provided by U.S. Army Corps of Engineers.

01164500. TULLY RESERVOIR on East Branch Tully River, 3.5 mi north of Athol, Mass., completed in 1948 for flood control, has usable capacity of 958,000,000 ft^3. Records provided by U.S. Army Corps of Engineers.

01167490; 01168000. SOMERSET AND HARRIMAN RESERVOIRS in Deerfield River basin 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: Somerset Reservoir on East Branch Deerfield River, 2.5 mi northeast of Somerset, Vt., completed in 1913, 2,500,000,000 ft^3; Harriman Reservoir on Deerfield River at Davis Bridge, Vt., completed in 1924, 5,060,000,000 ft^3. Records provided by New England Power Co.

01172400. BARRE FALLS RESERVOIR on Ware River, 4 mi east of Barre, Mass., completed in 1958 for flood control, has usable capacity of 1,050,000,000 ft^3. Records provided by U.S. Army Corps of Engineers.

01175000. QUABBIN RESERVOIR on Swift River, 3.2 mi east of Belchertown, Mass., completed in August 1939 for storage of water for municipal supply, has usable capacity of 53,800,000,000 ft^3. Records provided by Water Division, Metropolitan District Commission.

01176410. CONANT BROOK RESERVOIR in Chicopee River basin, 1.5 mi southeast of South Monson, Mass., completed in September 1966 for flood control, has usable capacity of 163,000,000 ft^3. Records provided by U.S. Army Corps of Engineers.

01176500. LUDLOW RESERVOIR in Chicopee River basin, 3.2 mi northwest of Three Rivers, Mass., completed in 1875 for storage of water for municipal supply, has usable capacity of 201,000,000 ft^3. Records provided by Board of Water Commissioners, Springfield, Mass.

01179000. KNIGHTVILLE RESERVOIR on Westfield River, 4 mi north of Huntington, Mass., completed in 1941 for flood control, has usable capacity of 2,130,000,000 ft^3. Records provided by U.S. Army Corps of Engineers.

01180450. LITTLEVILLE LAKE on Middle Branch Westfield River, 2 mi north of Huntington, Mass., completed in 1965, used for flood control, water supply, and recreation, has usable capacity of 1,410,000,000 ft^3. Records provided by U.S. Army Corps of Engineers.

01181900; 01182500. BORDEN BROOK AND COBBLE MOUNTAIN RESERVOIRS in Little River basin are operated as a unit for storage of water for municipal supply and for hydroelectric power development. The downstream order and usable capacity of each are as follows: Borden Brook Reservoir on Borden Brook, 3.5 mi south of Blandford, Mass., completed in 1909, 344,000,000 ft^3; Cobble Mountain Reservoir on Little River, 6.5 mi west of Westfield, Mass., completed in 1931, 3,050,000,000 ft^3. Records provided by Board of Water Commissioners, Springfield, Mass.

Reservoirs in Connecticut River basin--Continued

01185000. OTIS RESERVOIR in Farmington River basin, 3 mi southeast of Otis, Mass., completed in 1865, used for storage of water for power and for recreation, has usable capacity of 780,000,000 ft³. Records provided by Massachusetts Department of Natural Resources, Division of Forests and Parks.

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 Reservoir	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

Date	Birch Hill Reservoir	Tully Reservoir	Somerset and Harriman Reservoirs	Barre Falls Reservoir	Quabbin Reservoir†	Conant Brook Reservoir
Sept. 30, 1984	1.5	41.6	5247.7	1.8	51213	0
Oct. 31	2.8	43.2	5224.7	2.6	49839	0
Nov. 30	3.0	35.3	5562.5	26.8	48867	.1
Dec. 31	4.5	33.9	6010.0	26.8	48095	.1
Jan. 31, 1985	2.5	26.0	5079.7	22.9	47383	0
Feb. 28	5.7	33.2	4413.6	26.8	46912	.1
Mar. 31	45.7	64.0	4743.7	3.4	47162	.1
Apr. 30	2.8	64.0	6440.9	2.9	46420	.1
May 31	3.0	69.2	6698.3	3.1	46160	0
June 30	3.0	73.1	6623.4	3.1	45317	.1
July 31	2.5	60.7	6137.1	2.6	44220	.1
Aug. 31	3.6	67.9	5512.1	4.4	43058	.1
Sept. 30	7.5	27.8	5843.7	3.9	42020	.1

Date	Ludlow Reservoir	Knightville Reservoir	Littleville Lake	Borden Brook and Cobble Mountain Reservoirs	Otis Reservoir
Sept. 30, 1984	145.8	0.1	414.6	2345.0	688.0
Oct. 31	142.5	.1	417.2	2201.3	553.0
Nov. 30	165.1	8.2	423.7	2110.7	586.0
Dec. 31	181.1	49.8	426.3	2098.4	358.2
Jan. 31, 1985	177.5	20.7	418.5	2003.1	352.0
Feb. 28	181.1	23.3	430.2	2031.5	389.0
Mar. 31	179.4	87.4	444.5	2166.7	475.0
Apr. 30	175.8	.8	418.5	2208.7	524.3
May 31	179.4	.4	421.1	2191.5	564.0
June 30	179.4	.5	423.7	2106.4	589.7
July 31	175.8	.6	419.8	1972.4	612.0
Aug. 31	175.8	1.0	418.5	1872.2	638.2
Sept. 30	170.4	72.4	499.0	2105.6	657.3

† Affected by diversion from Ware River and diversion to Wachusett Reservoir and Chicopee Valley aqueduct.

01197000 EAST BRANCH HOUSATONIC RIVER AT COLTSVILLE, MASS.

LOCATION.--Lat 42°28'10", long 73°11'49", Berkshire County, Hydrologic Unit 01100005, on right bank 40 ft downstream from Hubbard Avenue Bridge at Coltsville, 1.2 mi upstream from Unkamet Brook, and 2 mi northeast of Pittsfield.

DRAINAGE AREA.--57.6 mi².

PERIOD OF RECORD.--Discharge: March 1936 to current year. Prior to October 1945, published as Housatonic River at Coltsville.
Water-quality records: Water years 1963-65.

REVISED RECORDS.--WSP 851: 1936(M). WDR MA-RI-82-1: 1976-77, 1979-80. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 993.49 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair October to January, good thereafter. Flow regulated by powerplants upstream and, since 1949, by Cleveland Brook Reservoir, usable capacity, 214,000,000 ft³, 5.4 mi upstream; regulation greater prior to 1955. Diversion upstream from Cleveland Brook Reservoir for municipal supply of Pittsfield since May 1950. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--49 years, 106 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,400 ft³/s Sept. 21, 1938, gage height, 10.80 ft, from rating curve extended above 2,300 ft³/s on basis of computation of peak flow over dam; minimum daily, 4.4 ft³/s Aug. 15, 1936.
Maximum discharge since at least 1755, that of Sept. 21, 1938.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	2100	*1,200	*4.71	No other peak greater than base discharge.			

Minimum daily discharge, 9.3 ft³/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	21	41	74	83	29	85	90	33	30	38	72	34
2	40	42	58	113	28	84	92	31	28	30	47	37
3	37	39	52	93	26	75	95	37	25	28	27	37
4	30	35	60	65	27	56	95	51	25	25	19	40
5	27	77	52	63	29	64	106	38	24	21	17	42
6	27	78	49	50	29	75	143	40	25	19	16	55
7	25	46	50	56	29	78	135	50	23	21	18	69
8	28	35	44	53	28	82	107	41	22	19	58	52
9	30	29	45	37	26	107	100	35	23	17	48	50
10	29	35	44	41	25	117	81	32	22	15	30	54
11	29	42	51	40	27	126	72	28	17	15	23	39
12	29	168	58	39	39	574	57	25	17	16	20	30
13	28	121	68	40	133	550	49	28	22	21	18	25
14	31	70	95	43	100	279	47	29	26	15	15	23
15	36	53	77	44	97	206	50	27	22	15	15	19
16	37	51	61	38	85	161	52	25	21	17	19	17
17	37	47	66	39	65	155	50	24	28	15	15	15
18	37	40	78	42	50	146	45	75	34	13	14	15
19	37	39	74	40	45	130	47	94	31	12	15	15
20	35	37	87	39	43	134	45	61	26	11	15	23
21	32	35	69	39	40	139	42	41	23	11	13	23
22	41	30	79	39	47	126	42	37	19	12	12	21
23	70	30	91	40	76	107	49	33	17	11	11	24
24	58	31	68	37	143	95	58	29	18	9.8	12	27
25	46	31	64	34	302	95	53	24	22	9.3	25	32
26	56	33	50	31	200	86	50	22	24	35	57	36
27	57	34	46	27	141	75	37	23	23	88	57	418
28	47	32	49	29	101	104	32	33	33	35	35	583
29	47	83	92	29	---	153	35	57	86	22	26	228
30	45	110	156	29	---	129	34	38	66	18	19	109
31	42	---	108	28	---	100	---	30	---	22	26	---
TOTAL	1171	1574	2115	1420	2010	4493	1990	1171	822	656.1	814	2192
MEAN	37.8	52.5	68.2	45.8	71.8	145	66.3	37.8	27.4	21.2	26.3	73.1
MAX	70	168	156	113	302	574	143	94	86	88	72	583
MIN	21	29	44	27	25	56	32	22	17	9.3	11	15

CAL YR 1984 TOTAL 48401 MEAN 132 MAX 2750 MIN 15
WTR YR 1985 TOTAL 20428.1 MEAN 56.0 MAX 583 MIN 9.3

01197500 HOUSATONIC RIVER NEAR GREAT BARRINGTON, MASS.

LOCATION.--Lat 42°13'55", long 73°21'19", Berkshire County, Hydrologic Unit 01100005, on left bank at upstream side of highway bridge at Van Deusenville, 0.5 mi upstream from Williams River, and 2 mi north of Great Barrington.

DRAINAGE AREA.--282 mi^2.

PERIOD OF RECORD.--Discharge: May 1913 to current year.
Water-quality records: Water years 1957-59, 1963-64, 1971, 1979-80.

REVISED RECORDS.--WSP 415: 1913-14. WSP 781: 1928(M). WSP 1051: 1928, 1933. WSP 1301: 1914-15(M), 1917-27(M), 1929-31(M). WDR MA-RI-83-1: 1980(P), 1982(P). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 683.04 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1931, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 8-12, 14-25, 27, 30, 31, Feb. 4, 5, 8-10, Feb. 21 to Mar. 4. Records good except those for estimated daily discharges, which are poor. Regulation at low flow by powerplants upstream. High flow slightly affected by retarding reservoir since 1973. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--72 years, 525 ft^3/s, 25.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft^3/s Jan. 1, 1949, gage height, 12.08 ft, from rating curve extended above 6,400 ft^3/s on basis of computations of flow over dams at gage heights 11.72 ft and 12.08 ft; minimum daily, 1.0 ft^3/s Oct. 18, 1914.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)'
Mar. 13	2030	*1,810	*4.99				

Minimum daily discharge, 72 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	201	194	311	436	207	600	461	204	224	268	427	182
2	254	189	271	445	194	480	481	196	223	210	417	160
3	284	183	245	457	187	440	466	216	192	174	261	150
4	267	173	261	392	265	410	460	280	174	235	190	148
5	249	217	253	360	205	417	454	274	160	210	159	147
6	233	320	250	320	180	461	472	289	156	178	152	149
7	225	277	235	313	186	443	529	302	152	197	126	245
8	215	220	170	310	175	461	496	285	152	177	135	235
9	203	200	189	280	195	502	468	240	149	158	255	213
10	172	203	196	260	180	485	422	217	150	154	208	294
11	168	217	203	260	151	477	365	206	146	147	170	283
12	206	456	224	250	183	984	341	194	121	132	152	222
13	164	644	246	247	551	1710	308	184	128	100	147	189
14	166	440	269	230	656	1690	289	191	157	158	124	179
15	156	307	320	240	477	1300	282	176	157	152	90	152
16	155	273	307	230	404	993	272	164	157	174	92	147
17	157	238	281	220	353	854	279	160	155	175	139	143
18	157	224	277	240	302	772	259	266	181	152	91	124
19	157	203	286	230	286	684	256	468	210	142	81	104
20	154	186	325	240	269	634	257	413	185	90	84	146
21	154	186	328	240	260	586	244	321	169	95	96	125
22	139	173	345	230	250	540	259	291	157	87	88	84
23	204	170	423	215	300	500	301	248	151	85	86	79
24	234	160	376	200	450	468	281	220	133	84	78	116
25	220	154	347	195	1000	440	270	194	122	77	72	91
26	215	154	296	193	920	417	260	174	156	77	198	121
27	241	151	275	190	800	402	243	160	152	234	260	360
28	225	151	266	186	680	316	228	170	153	291	224	1450
29	201	203	305	184	---	430	224	285	311	203	171	1370
30	205	358	470	175	---	478	208	270	367	161	144	843
31	202	---	506	180	---	450	---	227	---	163	168	---
TOTAL	6183	7224	9056	8148	10266	19824	10135	7485	5200	4940	5085	8251
MEAN	199	241	292	263	367	639	338	241	173	159	164	275
MAX	284	644	506	457	1000	1710	529	468	367	291	427	1450
MIN	139	151	170	175	151	316	208	160	121	77	72	79
CFSM	.71	.85	1.04	.93	1.30	2.27	1.20	.85	.61	.56	.58	.98
IN.	.82	.95	1.19	1.07	1.35	2.62	1.34	.99	.69	.65	.67	1.09

CAL YR 1984 TOTAL 244883 MEAN 669 MAX 9940 MIN 63 CFSM 2.37 IN. 32.30
WTR YR 1985 TOTAL 101797 MEAN 279 MAX 1710 MIN 72 CFSM .99 IN. 13.43

01331500 HOOSIC RIVER AT ADAMS, MASS.

LOCATION.--Lat 42°36'40", long 73°07'28", Berkshire County, Hydrologic Unit 02020003, on left bank at Adams, 500 ft downstream from Dry Brook, and 0.4 mi upstream from Pecks Brook.

DRAINAGE AREA.--46.7 mi².

PERIOD OF RECORD.--Discharge: October 1931 to current year.
Water-quality records: Water years 1967-69.

REVISED RECORDS.--WDR MA-NH-RI-VT-73-1: 1971-72. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 828.01 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1964, datum was 9.00 ft higher and Oct. 1, 1964, to May 29, 1974, 8.00 ft higher, at site 500 ft upstream.

REMARKS.--No estimated daily discharges. Records good. Diversion upstream for municipal supply of Adams. Some diurnal fluctuation by mill upstream prior to 1961. Flow regulated by Cheshire Reservoir 5.1 mi upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE--54 years, 89.5 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft³/s Sept. 21, 1938, gage height, 9.25 ft, site and datum then in use, from rating curve extended above 1,100 ft³/s on basis of computation of peak flow over dam; minimum daily, 8.0 ft³/s Aug. 31, Sept. 1, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 12	1315	*901	*7.87	No other peak greater than base discharge.			

Minimum discharge, 16 ft³/s July 23, 24-26; minimum daily, 16 ft³/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	18	24	56	108	35	109	115	46	37	45	86	28
2	35	25	48	160	35	102	106	43	36	37	48	24
3	32	24	43	104	35	92	96	49	32	33	38	22
4	30	22	46	75	34	70	101	55	29	37	34	21
5	26	57	41	75	33	82	117	50	27	33	30	20
6	23	54	42	63	34	79	190	53	27	30	27	28
7	22	39	43	66	34	67	171	63	27	30	26	42
8	23	33	36	62	31	70	131	53	26	27	68	31
9	23	31	38	46	32	75	115	47	26	26	42	27
10	22	46	37	46	33	74	97	46	26	25	32	34
11	22	49	40	46	31	83	94	42	25	23	30	30
12	21	213	45	45	40	598	88	39	30	22	27	25
13	21	113	68	46	146	324	82	39	32	27	25	22
14	21	76	88	44	90	221	79	37	31	24	25	21
15	21	60	63	44	69	178	79	35	28	24	23	21
16	21	59	55	39	60	146	79	34	29	29	24	20
17	20	51	62	38	54	140	75	34	37	25	22	19
18	20	46	70	41	51	124	70	97	41	22	20	18
19	20	42	66	41	46	108	70	78	38	20	19	18
20	20	36	78	41	44	112	68	62	33	19	21	18
21	20	35	60	39	42	109	67	52	31	18	21	18
22	21	32	78	40	47	98	65	52	27	18	20	17
23	37	31	84	39	86	95	67	39	27	17	20	17
24	30	31	64	38	177	94	62	38	29	17	19	19
25	27	31	61	38	280	92	58	35	29	16	33	24
26	33	31	48	38	173	82	56	32	27	83	47	35
27	33	30	45	38	150	80	53	32	26	162	40	279
28	30	30	47	36	117	133	50	47	51	51	30	252
29	30	86	151	35	---	180	50	57	98	36	24	102
30	27	73	201	34	---	140	48	41	63	33	21	41
31	26	---	118	33	---	113	---	38	---	34	34	---
TOTAL	775	1510	2022	1638	2039	4070	2599	1465	1025	1043	976	1293
MEAN	25.0	50.3	65.2	52.8	72.8	131	86.6	47.3	34.2	33.6	31.5	43.1
MAX	37	213	201	160	280	598	190	97	98	162	86	279
MIN	18	22	36	33	31	67	48	32	25	16	19	17

CAL YR 1984 TOTAL 39870 MEAN 109 MAX 1320 MIN 16
WTR YR 1985 TOTAL 20455 MEAN 56.0 MAX 598 MIN 16

01332000 NORTH BRANCH HOOSIC RIVER AT NORTH ADAMS, MASS.

LOCATION.--Lat 42°42'08", long 73°05'37", Berkshire County, Hydrologic Unit 02020003, on left bank at North Adams, 0.4 mi downstream from Hudson Brook, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--40.9 mi^2.

PERIOD OF RECORD.--Discharge: June 1931 to current year.
Water-quality records: Water years 1967-69.

REVISED RECORDS.--WSP 781: 1933(M). WSP 801: 1928(M). WDR MA-NH-RI-VT-73-1: 1971. WDR-MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control at present site. Datum of gage is 820.46 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 23, 1938, at site 100 ft upstream at same datum. July 9, 1959, to July 29, 1960, nonrecording gage at site 500 ft upstream at datum about 4.6 ft lower.

REMARKS.--Estimated daily discharges: Jan. 10-23, Feb. 8-13, and Aug. 2 to Sept. 11. Records good except those for estimated discharges, which are poor. Infrequent diurnal fluctuation at low flow by mill upstream; more frequent fluctuation prior to 1948. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--54 years, 96.2 ft^3/s, 31.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,950 ft^3/s Sept. 21, 1938, gage height, 12.05 ft, from flood-marks, by computation of peak flow over dam; maximum gage height, 12.24 ft Aug. 10, 1976; minimum discharge, 1.7 ft^3/s July 30, 1965; minimum daily, 3.1 ft^3/s July 30, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1927 reached a discharge of 9,980 ft^3/s, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 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	1745	*1,510	*8.43	No other peak greater than base discharge.			

Minimum discharge, 8.1 ft^3/s about Aug. 24, from minimum stage indicator; minimum daily, 8.5 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	8.8	25	95	171	24	113	142	44	29	48	61	29
2	44	25	80	278	24	106	115	41	33	34	35	22
3	45	24	71	154	23	94	100	47	26	27	24	20
4	45	22	65	111	22	65	102	48	21	24	20	19
5	52	65	56	95	22	84	164	47	18	20	17	18
6	37	74	56	77	23	75	375	59	17	19	15	25
7	19	52	51	77	21	69	291	105	20	25	14	37
8	19	42	49	64	21	68	194	72	18	21	38	27
9	19	37	48	48	21	69	149	59	24	17	24	25
10	18	46	46	47	21	64	118	53	21	18	17	50
11	19	50	51	45	21	70	106	49	15	16	15	32
12	20	240	55	44	24	544	99	49	28	14	14	23
13	14	133	72	42	160	334	93	49	38	20	13	20
14	18	90	114	41	102	179	95	43	32	46	12	18
15	21	72	80	40	65	130	99	37	23	89	11	16
16	21	72	68	39	51	105	116	35	22	92	20	15
17	21	68	86	38	45	98	108	38	132	47	15	13
18	15	59	108	37	40	88	88	101	112	30	13	12
19	13	53	94	36	36	77	91	103	77	22	12	11
20	13	45	81	35	35	80	85	76	53	18	11	11
21	13	41	73	34	32	83	77	60	45	16	11	10
22	19	39	89	33	38	73	74	54	33	15	10	9.9
23	40	37	80	32	72	74	73	47	26	13	9.4	10
24	28	37	65	31	154	79	65	39	23	12	8.5	12
25	22	35	57	30	350	81	61	33	20	11	21	35
26	45	36	47	28	196	71	57	30	21	80	40	21
27	44	43	42	27	168	76	56	28	20	152	29	413
28	32	44	54	27	133	236	54	33	52	52	23	310
29	39	170	260	25	---	416	52	52	107	32	20	115
30	36	137	462	24	---	291	47	39	68	26	21	75
31	29	---	198	23	---	188	---	32	---	24	47	---
TOTAL	828.8	1913	2853	1833	1944	4180	3346	1602	1174	1080	640.9	1453.9
MEAN	26.7	63.8	92.0	59.1	69.4	135	112	51.7	39.1	34.8	20.7	48.5
MAX	52	240	462	278	350	544	375	105	132	152	61	413
MIN	8.8	22	42	23	21	64	47	28	15	11	8.5	9.9
CFSM	.65	1.56	2.25	1.44	1.70	3.30	2.74	1.26	.96	.85	.51	1.19
IN.	.75	1.74	2.59	1.67	1.77	3.80	3.04	1.46	1.07	.98	.58	1.32

CAL YR 1984 TOTAL 40393.3 MEAN 110 MAX 1610 MIN 8.8 CFSM 2.69 IN. 36.74
WTR YR 1985 TOTAL 22848.6 MEAN 62.6 MAX 544 MIN 8.5 CFSM 1.53 IN. 20.78

01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MASS.

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

DRAINAGE AREA.--126 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 616.11 ft above National Geodetic Vertical Datum of 1929, (U.S. Army Corps of Engineers benchmark). Prior to June 6, 1979, at site 1.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 10 to Feb. 13 and Feb. 16-22. Records good except those for winter period, which are fair. Prior to 1966, slight diurnal fluctuation at low flow caused by mills upstream. Some regulation by Cheshire Reservoir 16 mi upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--45 years, 272 ft³/s, 29.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s Dec. 31, 1948, gage height, 14.85 ft, former site and datum, from rating curve extended above 4,300 ft³/s on basis of contracted-opening measurement of peak flow; minimum, 5.8 ft³/s Aug. 30, 31, Oct. 26, 1940; minimum daily, 24 ft³/s Sept. 9, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 27	1815	*2,480	*8.24	No other peak greater than base discharge.			

Minimum discharge, 37 ft³/s Aug. 24, 25; minimum daily, 45 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	51	74	214	382	86	317	380	124	112	143	187	104
2	116	77	181	586	86	298	328	122	102	110	119	75
3	115	73	162	376	85	270	300	136	93	97	97	70
4	103	66	162	274	81	200	312	153	84	96	84	66
5	107	155	137	261	80	240	391	141	77	84	76	60
6	88	180	140	208	85	222	758	170	79	81	74	89
7	70	123	138	216	82	195	637	277	79	83	63	129
8	68	107	120	183	76	201	468	187	82	80	121	90
9	73	100	128	133	78	223	391	164	83	76	100	84
10	66	127	116	130	80	215	321	145	80	73	79	106
11	63	143	128	130	76	238	292	142	77	68	70	98
12	61	613	141	130	94	1570	275	133	94	66	61	78
13	59	365	184	130	480	1030	254	137	107	75	59	69
14	53	239	284	130	281	605	256	120	102	114	56	63
15	58	191	204	130	202	463	270	113	87	159	59	63
16	65	186	177	125	160	375	282	108	86	193	71	60
17	63	172	198	115	145	358	269	108	248	106	60	60
18	62	152	247	120	130	321	229	309	215	80	54	60
19	57	142	221	120	120	273	243	266	162	73	52	59
20	59	122	233	115	115	285	223	207	127	62	53	54
21	53	117	190	110	110	279	214	172	114	60	53	54
22	70	103	231	110	125	248	200	152	95	57	51	51
23	113	100	243	105	230	254	211	130	83	53	50	48
24	91	100	191	100	468	254	184	118	90	54	45	59
25	77	97	180	100	888	251	174	103	87	52	86	86
26	113	98	142	96	549	227	165	98	82	216	116	75
27	113	104	131	95	445	226	158	99	79	497	104	851
28	93	102	151	92	353	461	145	134	155	161	76	869
29	91	329	533	88	---	765	138	160	300	112	71	319
30	90	300	862	85	---	581	132	112	193	96	72	186
31	83	---	447	81	---	426	---	102	---	95	150	---
TOTAL	2444	4857	6816	5056	5790	11871	8600	4642	3454	3372	2469	4135
MEAN	78.8	162	220	163	207	383	287	150	115	109	79.6	138
MAX	116	613	862	586	888	1570	758	309	300	497	187	869
MIN	51	66	116	81	76	195	132	98	77	52	45	48
CFSM	.63	1.29	1.75	1.29	1.64	3.04	2.28	1.19	.91	.87	.63	1.10
IN.	.72	1.43	2.01	1.49	1.71	3.50	2.54	1.37	1.02	.00	.73	1.22

CAL YR 1984 TOTAL 116416 MEAN 318 MAX 3910 MIN 47 CFSM 2.52 IN. 34.37
WTR YR 1985 TOTAL 63506 MEAN 174 MAX 1570 MIN 45 CFSM 1.38 IN. 18.75

01333000 GREEN RIVER AT WILLIAMSTOWN, MASS.

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

DRAINAGE AREA.--42.6 mi^2.

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

REVISED RECORDS.--WDR MA-RI-84-1: 1977-78(P), 1979, 1980-83(P).

GAGE.--Water-stage recorder. Elevation of gage is 615 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 6-9, 25-27, Jan. 6, 9-17, 20-23, Jan. 26 to Feb. 5, Feb. 7-12, 15-17, 19-21. Records good except those for winter period, which are fair. Slight diurnal fluctuation at times caused by mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--36 years, 82.6 ft^3/s, 26.33 in/yr.

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

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 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	1045	*1,130	*3.97	No other peak greater than base discharge.			

Minimum discharge, 6.8 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	7.8	15	44	104	23	114	87	40	35	39	34	16
2	28	16	40	114	24	105	81	38	29	32	22	13
3	19	15	42	95	22	89	76	42	27	29	20	13
4	16	14	47	84	21	71	81	39	25	29	18	12
5	14	31	40	78	22	83	85	38	24	24	16	11
6	12	30	39	67	23	73	130	51	24	22	15	26
7	12	24	36	70	22	72	122	83	23	27	14	29
8	11	22	36	63	20	71	111	53	24	22	20	20
9	11	20	36	42	19	81	99	49	23	20	16	20
10	11	31	37	42	21	85	86	47	21	18	14	22
11	11	31	45	42	21	94	81	44	18	17	13	21
12	10	172	50	43	23	706	75	42	26	17	13	17
13	9.9	95	84	45	164	395	70	40	23	19	12	16
14	9.7	70	87	45	65	259	70	37	21	19	11	14
15	9.3	58	76	45	47	196	69	34	19	16	11	13
16	9.1	55	71	42	40	157	70	33	20	37	15	13
17	8.9	49	72	41	39	144	66	33	47	21	11	12
18	8.8	45	71	41	38	126	63	109	34	18	10	11
19	8.8	42	73	40	35	105	64	74	27	16	9.8	11
20	11	37	77	37	34	103	60	64	23	14	11	11
21	10	34	67	36	32	90	56	56	25	13	9.3	9.8
22	17	32	82	34	44	80	61	51	21	13	8.6	9.2
23	24	31	77	33	97	77	62	47	19	12	8.3	8.8
24	17	31	69	32	211	74	55	44	22	11	7.7	11
25	15	29	60	31	293	69	53	39	20	11	19	14
26	24	28	52	29	178	63	51	37	20	67	17	11
27	21	27	51	27	156	62	49	35	19	79	15	161
28	18	27	62	27	122	78	47	47	39	31	12	104
29	19	55	117	22	---	118	45	43	78	23	11	52
30	17	48	129	20	---	102	42	35	52	20	13	38
31	16	---	105	21	---	85	---	31	---	23	27	---
TOTAL	436.3	1214	1974	1492	1856	4027	2167	1455	828	759	453.7	739.8
MEAN	14.1	40.5	63.7	48.1	66.3	130	72.2	46.9	27.6	24.5	14.6	24.7
MAX	28	172	129	114	293	706	130	109	78	79	34	161
MIN	7.8	14	36	20	19	62	42	31	18	11	7.7	8.8
CFSM	.33	.95	1.50	1.13	1.56	3.05	1.69	1.10	.65	.58	.34	.58
IN.	.38	1.06	1.72	1.30	1.62	3.52	1.89	1.27	.72	.66	.40	.65

CAL YR 1984 TOTAL 33912.0 MEAN 92.7 MAX 1500 MIN 7.0 CFSM 2.18 IN. 29.61
WTR YR 1985 TOTAL 17401.8 MEAN 47.7 MAX 706 MIN 7.7 CFSM 1.12 IN. 15.20

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations or miscellaneous sites are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage partial record stations. The second is a table of discharge measurements made at miscellaneous sites. There were no low-flow partial-record stations operated during the year.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, 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)
		Blackstone River basin					
01109480	Kettle Brook Diversion Weir at Auburn, Mass.	Lat 42°13'06", long 71°49'40", Worcester County, on right bank behind MacKensie Machinery Co., on State Highway 12, 1.8 mi north of Massachusetts Turnpike overpass.	-	1979-85	8- 1-85	487.83	a348

a Does not include unknown amount of bypass flow.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*).

Discharge measurements made at miscellaneous sites during water year 1985

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Merrimack River basin						
01094510 Wekepeke Brook	North Nashua River	Lat 42°28'37", long 71°46'45", Worcester County, at bridge on North Row Road, 2.9 mi north of Sterling, Mass.	-	-	10-11-84	*0.07
					6- 5-85	*.43
					7-25-85	*.06
					8-19-85	*.02
					9-18-85	*.11
01094515 Lyrde Brook	Wekepeke Brook	Lat 42°27'53", long 71°46'21", Worcester County, at culvert on Tuttle Road, 2.0 mi north of Sterling, Mass.	-	-	10-11-84	0
					6- 5-85	*.04
					7-25-85	0
					8-19-85	0
					9-18-85	0
01094520 Wekepeke Brook	North Nashua River	Lat 42°28'05", long 71°44'51", Worcester County, at bridge on State Highway 12, 2.2 mi north of Sterling, Mass.	-	1984	10-11-84	*1.5
					6- 5-85	*2.6
					7-25-85	*1.1
					8-19-85	*1.1
					9-18-85	*.96
01094525 Wekepeke Brook tributary No. 1	Wekepeke Brook	Lat 42°28'06", long 71°43'24", Worcester County, at culvert on Ford Road, 2.8 mi northeast of Sterling, Mass.	-	-	10-11-84	0
					6- 5-85	*.04
					7-25-85	0
					8-19-85	0
					9-18-85	0
01094530 Wekepeke Brook tributary No. 2	do	Lat 42°28'38", long 71°43'19", Worcester County, at mouth, 160 ft downstream from culvert over Wekepeke Brook under Interstate Highway 190, and 2.9 mi northwest of Lancaster, Mass.	-	-	10-11-84	0
					6- 5-85	*.06
					7-25-85	0
					8-19-85	0
					9-18-85	0
01094540 Wekepeke Brook tributary No. 3	do	Lat 42°28'54", long 71°42'45", Worcester County, at power lines west of Brockelman Road, 2.8 mi northwest of Lancaster, Mass.	-	-	10-11-84	0
					6- 5-85	*.28
					7-25-85	0
					8-19-85	0
					9-18-85	*.01
01094550 Wekepeke Brook	North Nashua River	Lat 42°29'19", long 71°42'51", Worcester County, at bridge on State Highway 117, 3.1 mi northwest of Lancaster, Mass.	11.5	1971-73, 1984	10-11-84	*4.2
					6- 5-85	*7.1
					7-25-85	*2.9
					8-19-85	*3.3
					9-18-85	*3.6
01094950 Stillwater River	Wachusett Reservoir	Lat 42°26'48", long 71°49'07", Worcester County, 300 ft downstream from bridge on State Highway 140, 3.0 mi west of Sterling, Mass.	-	1984	7-25-85	*.85
					8-19-85	*3.1
					9-17-85	*2.6
01095000 Rocky Brook	Stillwater River	Lat 42°26'58", long 71°48'07", Worcester County, at bridge on Beaman Road, 2.3 mi west of Sterling, Mass.	-	1984	7-25-85	*.20
					8-19-85	*.16
					9-17-85	*.19
01095010 Bailey Brook	do	Lat 42°27'01", long 71°48'28", Worcester County, at bridge on Beaman Road, 2.6 mi west of Sterling, Mass.	-	-	9-27-84	0
					7-25-85	*.09
					8-19-85	*.10
					9-17-85	*.02
01095020 Wachusett Brook	do	Lat 42°26'27", long 71°48'57", Worcester County, at bridge at intersection of Burpee Road and State Highway 140, 2.8 mi west of Sterling, Mass.	-	1984	7-25-85	*.09
					8-19-85	*.99
					9-17-85	*.98
01095045 Ball Brook	do	Lat 42°26'10', long 71°48'51", Worcester County, at bridge on State Highway 140, 2.7 mi west of Sterling, Mass.	-	-	9-27-84	0
					7-25-85	0
					8-19-85	*.05
					9-17-85	*.10
01095050 Stillwater River	Wachusett Reservoir	Lat 42°26'00", long 71°48'41", Worcester County, at bridge on State Highway 62, 2.5 mi west of Sterling, Mass.	25.7	1971-73, 1984	7-25-85	*1.5
					8-19-85	*4.1
					9-17-85	*4.8
01095100 Scanlon Brook	Stillwater River	Lat 42°25'17", long 71°48'29", Worcester County, at bridge on State Highway 140, 2.7 mi west of Sterling, Mass.	-	-	9-27-84	0
					7-25-85	0
					8-19-85	*.01
					9-17-85	*.11

See footnotes at end of table.

Discharge measurements made at 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				
01095200 Houghton Brook	Stillwater River	Lat 42°24'57", long 71°48'12", Worcester County, at bridge on State Highway 140, 2.7 mi west of Sterling, Mass.	0.69	1965-66†† 1984	7-25-85 8-19-85 9-17-85	*0.26 *.14 *.26
01095225 Stillwater River	Wachusett Reservoir	Lat 42°24'37", long 71°47'27", Worcester County, 300 ft downstream from bridge on Muddy Pond Road, 2.4 mi southwest of Sterling, Mass.	-	1984	7-25-85 8-19-85 9-17-85	*3.3 *5.9 *7.0
01095529 Nashua River tributary	Nashua River	Lat 42°26'39", long 71°40'19", Worcester County, at mouth, at bridge on dirt road, and 0.7 mi south of Lancaster, Mass.	-	-	10- 9-84 7-25-85 9-16-85	*.05 0 *.18
01095570 Still River	do	Lat 42°26'43", long 71°37'46", Worcester County, 50 ft downstream from culvert on wood road south of State Highway 117 near Sampson Road, 1.4 mi northwest of Bolton, Mass.	-	-	10- 9-84 7-25-85 9-16-85	*.31 *.01 *.05
01095590 Still River	do	Lat 42°26'54", long 71°39'21", Worcester County, 45 ft upstream from outfall of sewage treatment plant, 0.2 mi northwest of junction of State Highway 110 and Forbush Mill Road, and 1.0 mi southeast of Lancaster, Mass.	-	-	10- 9-84 7-25-85	*.41 *.07
01095610 Still River tributary No. 2	Still River	Lat 42°26'59", long 71°37'36", Worcester County, at bridge on Green Road near intersection of Sampson Road, 1.5 mi northwest of Bolton, Mass.			10- 9-84 7-25-85 9-16-85	0 0 *.02
01095620 Still River tributary No. 3	do	Lat 42°27'48", long 71°38'08", Worcester County, 200 ft downstream from bridge on State Highway 110, 2.5 mi northwest of Bolton, Mass.	-	-	10- 9-84 7-25-85	*.02 0
01095625 Still River	Nashua River	Lat 42°27'54", long 71°38'14", Worcester County, at culvert on dirt road off State Highway 110, 4,300 ft south of Harvard town line, and 2.6 mi northwest of Bolton, Mass.	-	-	7-25-85 9-16-85	*.18 *.92
01095630 Still River	do	Lat 42°28'28', long 71°37'49", Worcester County, at end of grass track 500 ft south of Harvard town line, 0.3 mi west of State Highway 110, and 3.0 mi northwest of Bolton, Mass.	-	-	7-25-85	*.27
01095750 Catacoonamug Brook	do	Lat 42°34'27", long 71°42'46", Worcester County, at bridge on Lancaster Avenue, 1.6 mi southeast of Lunenburg, Mass.	-	1984	7- 9-85 9-16-85	*.09 *.47
01095755 Catacoonamug Brook tributary No. 1	Catacoonamug Brook	Lat 42°34'12", long 71°42'07", Worcester County, at bridge on Reservoir Road, 0.9 mi south of Page Road, and 2.1 mi southeast of Lunenburg, Mass.	-	-	9-26-84 7- 9-85 9-16-85	0 0 *.16
01095760 Catacoonamug Brook tributary No. 2	do	Lat 42°33'36", long 71°42'36", Worcester County, at bridge on Goodrich Street, 0.4 mi southeast of Lancaster Avenue, and 2.6 mi south of Lunenburg, Mass.	-	-	9-27-84 7- 9-85 9-16-85	0 *.21 *1.1
01095765 Catacoonamug Brook	Nashua River	Lat 42°34'02", long 71°41'49", Worcester County, 0.25 mi downstream from bridge on Reservoir Road, 2.4 mi southeast of Lunenburg, Mass.	-	1984	7- 9-85 9-16-85	*.36 *2.1
01095770 Catacoonamug Brook tributary No. 3	Catacoonamug Brook	Lat 42°33'36", long 71°41'41", Worcester County, at bridge on Reservoir Road, 1.0 mi north of Round Street, and 2.9 mi southeast of Lunenburg, Mass.	-	1984	7- 9-85 9-16-85	*.02 *.05
01095805 Easter Brook	do	Lat 42°33'16", long 71°41'34", Worcester County, at culvert on Reservoir Road, 3.3 mi southeast of Lunenburg, Mass.	-	1984	7- 9-85 9-16-85	*.51 *.82
01095820 Catacoonamug Brook	Nashua River	Lat 42°33'16", long 71°40'28", Middlesex County, at bridge on Catacoonamug Road, 400 ft downstream from Lake Shirley dam, and 1.2 mi northwest of Shirley, Mass.	-	-	7- 9-85 9-16-85	*2.9 *4.2

See footnotes at end of table.

Discharge measurements made at 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				
01095840 Catacoonamug Brook	Nashua River	Lat 42°32'38", long 71°39'25", Middlesex County, at culvert on Lancaster Road, 1 mi above mouth, and 0.1 mi north of Shirley, Mass.	19.1	1971-73 1984	7- 9-85 9-16-85	*4.1 *7.6
01095933 Willard Brook	Squannacook River	Lat 42°40'33", long 71°45'44", Middlesex County, 1,500 ft upstream from culvert on West Meadow Road, 1.3 mi west of West Townsend, Mass.	-	-	6-10-85 7-25-85 8-23-85 9-17-85	*3.3 *.99 *.89 *1.8
01095938 Locke Brook	Willard Brook	Lat 42°40'43", long 71°45'45", Middlesex County, at base of steep gradient 1,100 ft upstream from culvert on West Meadow Road, at West Townsend, Mass.	-	-	6-10-85 7-25-85 8-23-85	*.53 0 0
01095940 Locke Brook	do	Lat 42°40'42", long 71°45'31", Middlesex County, at culvert on West Meadow Road, at West Townsend, Mass. and 0.5 mi upstream from mouth.	-	1971-73	9-17-85	0
01095950 Mason Brook	Squannacook River	Lat 42°42'05", long 71°45'10", Middlesex County, 2,200 ft south of New Hampshire State Line, 2 mi northwest of West Townsend, Mass.	-	1971-73	6-10-85 7-25-85 8-23-85 9-17-85	*1.7 *.18 *.11 *.43
01095960 Walker Brook	Mason Brook	Lat 42°42'07", long 71°46'06", Middlesex County, at culvert on State Highway 124, 2 mi northwest of West Townsend, Mass.	-	1971-73	6-10-85 7-25-85 8-23-85 9-17-85	*1.2 *.07 *.08 *.40
01095963 Walker Brook tributary No. 1	Walker Brook	Lat 42°41'40", long 71°45'33", Middlesex County, at culvert on State Route 124, 1,500 ft north of Mason Road, and 1.5 mi northwest of West Townsend, Mass.	-	-	6-10-85 7-25-85 8-23-85 9-17-85	*.03 0 0 0
01095965 Pearl Hill Brook	Squannacook River	Lat 42°38'17", long 71°46'55", Middlesex County, at bridge on Wares Road, 3.4 mi southwest of West Townsend, Mass.	-	-	6-11-85 7-25-85 8-23-85 9-17-85	*.37 *.02 *.09 *.25
01095968 Pearl Hill Brook tributary No. 1	Pearl Hill Brook	Lat 42°39'09", long 71°45'37", Middlesex County, at culvert on New Fitchburg Road, 2,500 ft south of Bayberry Hill Road, and 2.0 mi southwest of West Townsend, Mass.	-	-	6-11-85 7-25-85 8-23-85 9-17-85	*.13 *.01 *.02 *.02
01095975 Squannacook River	Nashua River	Lat 42°40'44", long 71°44'25", Middlesex County, in 2 sections at bridge on Mason Road, 0.1 mi north of West Townsend, Mass.	-	-	6-11-85 7-25-85 8-23-85 9-17-85	*7.6 *2.6 *3.2 *5.3
01095980 Squannacook River	do	Lat 42°39'45", long 71°42'33", Middlesex County, at bridge on Elm Street, 1,800 ft southwest of intersection of Main Street and Elm Street, at Townsend, Mass.	-	1971-73	7- 9-85 9-17-85	*7.0 *8.0
01095985 Bixby Brook	Squannacook River	Lat 42°38'24", long 71°42'21", Middlesex County, at bridge on Emery Road, 1.9 mi south of Townsend, Mass.	-	-	9-26-84 7- 9-85 8-23-85 9-17-85	0 *.01 *.08 0
01095987 Bixby Brook tributary	Bixby Brook	Lat 42°38'36", long 71°42'35", Middlesex County, at bridge 100 ft downstream from Graves Pond dam on Emery Road, 1.6 mi south of Townsend, Mass.	-	1984	7- 9-85 8-23-85 9-17-85	*.42 *.27 *.27
01095989 Bixby Brook	Squannacook River	Lat 42°38'53", long 71°41'18", Middlesex County, 200 ft downstream from bridge on South Row Road, 1.6 mi southeast of Townsend, Mass.	-	1984	7- 9-85 8-23-85 9-17-85	*.24 *.08 0
01095992 Witch Brook	do	Lat 42°37'45", long 71°41'12", Middlesex County, at old dam 150 ft downstream from bridge on Pierce Road, 2.8 mi south of Townsend, Mass.	-	1984	7- 9-85 8-23-85 9-17-85	*.29 *.04 *.22
01095997 Witch Brook	do	Lat 42°38'26", long 71°40'17", Middlesex County, at bridge on Warren Road, 2.6 mi southeast of Townsend, Mass.	-	1984	7- 9-85 8-23-85 9-17-85	*.72 *.14 *.81

See footnotes at end of table.

Discharge measurements made at 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)
Neponset River basin						
01104820 Neponset River	Dorchester Bay (Atlantic Ocean)	Lat 42°07'28", long 71°15'10", Norfolk County, at bridge on South Street, 1.5 mi north of South Walpole, Mass.	7.62	1967	5- 1-85	*6.3
01104830 School Meadow Brook	Neponset River	Lat 42°07'32", long 71°14'47", Norfolk County, at bridge on Washington Street, 1.5 mi south of Walpole, Mass.	2.80	1967	5- 1-85	*.32
01104847 Mine Brook	do	Lat 42°10'58", long 71°16'58", Norfolk County, at bridge on Phillip Street, 1.2 mi east of Medfield, Mass.	3.54	1968	5- 2-85	*2.8
01104850 Mine Brook	do	Lat 42°09'14", long 71°15'52", Norfolk County, at inlet to Turner Pond, 0.8 mi northwest of Walpole, Mass.	5.98	1968	5- 2-85	*4.2
01104860 Spring Brook	do	Lat 42°08'47", long 71°14'59", Norfolk County, 200 ft downstream from Memorial Pond outlet, at Walpole, Mass.	1.84	1967	5- 2-85	*1.9
01104870 Neponset River	Dorchester Bay (Atlantic Ocean)	Lat 42°09'14", long 71°14'56", Norfolk County, at bridge on State Highway 1A, 500 ft downstream from Stetson Pond outlet, and 0.6 mi north of Walpole, Mass.	23.4	-	5- 2-85	*13
01104880 Neponset River tributary	Neponset River	Lat 42°09'55", long 71°14'54", Norfolk County, at bridge on Gould Street, 1.4 mi north of Walpole, Mass.	1.51	1967	5- 2-85	*1.2
01104883 Neponset River	Dorchester Bay (Atlantic Ocean)	Lat 42°09'33", long 71°14'06", Norfolk County, at bridge on Plimpton Street, 1.1 mi northeast of Walpole, Mass.	24.8	-	5- 2-85	*13
01105253 Beaver Brook	Massapoag Brook	Lat 42°07'38", long 71°10'58", Norfolk County, at bridge on State Highway 27, 500 ft north of Sharon railroad station, at Sharon, Mass.	1.90	-	5- 1-85	*1.0
01105255 Beaver Brook	do	Lat 42°07'59", long 71°10'41", Norfolk County, at bridge on Maskwonicut Street, 0.8 mi north of Sharon, Mass.	2.45	1968	5- 1-85	*3.1
Blackstone River basin						
01109460 Dark Brook	Kettle Brook	Lat 42°12'20", long 71°50'06", Worcester County, at bridge on State Highway 12, at Auburn, Mass.	11.1	1978-79	4-30-85	7.2
01109440 Kettle Brook	Middle River	Lat 42°12'55", long 71°50'22", Worcester County, at bridge on Rockland Street, 0.2 mi northeast of Stoneville, Mass.	18.3	-	4-30-85	6.9
01109500 Kettle Brook	do	Lat 42°13'55", long 71°50'07", Worcester County, 75 ft downstream from bridge on Webster Street, 1.0 mi upstream from Beaver Brook, in Worcester, Mass.	31.3	1923-78† 1979-81††	4-30-85	17
01109590 Beaver Brook	do	Lat 42°14'53", long 71°49'53", Worcester County, 0.1 mi downstream from bridge on Park Street, 0.2 mi north of Webster Square, in Worcester, Mass.	16.4	-	4-30-85	5.8
01109600 Middle River	Blackstone River	Lat 42°14'20", long 71°49'01", Worcester County, 300 ft upstream from College Square interchange of Interstate Highway 290, in Worcester, Mass.	50.2	-	4-30-85	22
01109650 Blackstone River	Narragansett Bay (Atlantic Ocean)	Lat 42°13'43", long 71°47'19", Worcester County, northside of Millbury Street, 0.2 mi northeast of State Highway 146, in Worcester, Mass.	63.8	-	4-30-85	44
01109660 Blackstone River	do	Lat 42°12'28", long 71°46'55", Worcester County, 100 ft downstream from outfall of the Upper Blackstone wastewater treatment plant, 0.1 mi downstream from Interstate Highway 90, and 1.6 mi northeast of Millbury, Mass.	65.5	-	5- 1-85	71

See footnotes at end of table.

Discharge measurements made at 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)
Blackstone River basin--Continued						
01109670 Worcester Flood Control Aqueduct	Blackstone River	Lat 42°12'19", long 71°47'16", Worcester County, at bridge on Greenwood Street, 1.6 mi northeast of Millbury, Mass.	-	-	5- 1-85	3.0
01109700 Blackstone River	Narragansett Bay	Lat 42°11'50", long 71°46'21", Worcester County, 0.3 mi downstream from bridge on State Highway 146, 0.5 mi northwest of Millbury, Mass.	70.4	-	5- 1-85	80
01109750 Singletary Brook	Blackstone River	Lat 42°11'07", long 71°45'48", Worcester County, 0.2 mi upstream from Blackstone River, 0.5 mi southwest of Millbury, Mass.	5.6	-	5- 1-85	*2.3
01110100 Quinsigamond River	do	Lat 42°11'39", long 71°41'35", Worcester County, 0.3 mi downstream from bridge on Pleasant Street, 1.0 mi southwest of Grafton, Mass.	37.1	-	5- 2-85	24
01110500 Blackstone River	Narragansett Bay (Atlantic Ocean)	Lat 42°09'13", long 71°39'09", Worcester County, 100 ft downstream from Sutton Street Bridge, at Northbridge, Mass.	139	1940-77† 1978-84	5- 2-85 7-25-86	187 80
01111040 Mumford River	Blackstone River	Lat 42°05'25", long 71°38'11", Worcester County, 0.2 mi downstream from bridge on Hartford Avenue, 1.0 mi northwest of Uxbridge, Mass.	55.0	-	5- 2-85	25
01111150 West River	do	Lat 42°09'25", long 71°37'23", Worcester County, at bridge on Pleasant Street, 0.9 mi south of West Upton, Mass.	14.7	1978	5- 2-85	*9.5
01111170 Center Brook	West River	Lat 42°09'35", long 71°36'23", Worcester County, at bridge on Mendon Street, 1.0 mi south of Upton, Mass.	6.03	1978-79	5- 8-85	*8.8
01111205 West River	Blackstone River	Lat 42°04'50", long 71°36'31", Worcester County, at bridge on Henry Street, 0.2 mi east of Wheelockville, Mass.	32.4	-	5- 2-85	*20
01112100 Mill River	do	Lat 42°09'12", long 71°33'50", Worcester County, at bridge on State Highway 140, 2.4 mi northwest of Milford, Mass.	6.63	1978	5- 8-85	*17
01112190 Muddy Brook	Mill River	Lat 42°05'35", long 71°31'11", Worcester County, at bridge on Bellingham Road, 1.0 mi southwest of South Milford, and 2.4 mi west of Bellingham, Mass.	6.23	1978	5- 8-85	*11
01112200 Mill River	Blackstone River	Lat 42°05'35", long 71°31'07", Worcester County, at bridge on Bellingham Road, 1.0 mi southwest of South Milford, and 2.3 mi west of Bellingham, Mass.	19.1	1978-79	5- 8-85	*44
01112250 Mill River	do	Lat 42°02'55", long 71°31'15", Worcester County, at bridge on Elm Street, 2.2 mi northeast of Blackstone, Mass.	25.3	1978	5- 8-85	*59
Thames River basin						
01125000 French River	Quinebaug River	Lat 42°03'03", long 71°53'08", Worcester County, on right bank in Dudley, 50 ft upstream from Pleasant Street Bridge at Webster, 1.1 mi upstream from Potash Brook, in Dudley, Mass.	85.3	1949-81† 1982-84	4- 3-85	126
Connecticut River basin						
01168780 East Branch North River	North River	Lat 42°40'29", long 72°41'46", Franklin County, at bridge on State Highway 112, at Colrain, Mass.	46.1	1984	10-16-84	*4.6
01168788 East Branch North River	do	Lat 42°40'34", long 72°42'48", Franklin County, at abandoned dam site, 0.4 mi upstream from mouth of Foundry Brook, and 0.3 mi north of Lyonsville, Mass.		1984	10-17-84	*5.5

See footnotes at end of table.

Discharge measurements made at 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)
		Connecticut River basin--Continued				
01168920 West Branch North River	North River	Lat 42°41'27", long 72°45'32", Franklin County, 0.1 mi upstream from mouth of Tissdell Brook, 0.9 mi northwest of Adamsville, Mass.	-	1938 (p), 1965, 1984	11- 7-84 11-27-84	26 27
01168930 West Branch North River	do	Lat 42°40'58", long 72°45'05", Franklin County, at bridge on Archambo Road, 0.7 mi downstream from mouth of Tissdell Brook, and 0.1 mi north of Adamsville, Mass.	-	1984	11-28-84 11-28-84	18 19
01172690 Natty Pond Brook	Canesto Brook	Lat 42°29'24", long 71°01'30", Worcester County, 2,200 ft downstream from bridge on New Templeton Road, 1.4 mi northwest west of Hubbardston, Mass.	-	-	9-16-85 9-17-85	*1.0 *.82
01172695 Natty Pond Brook	do	Lat 42°28'52", long 71°01'38", Worcester County, 1,000 ft upstream from bridge on Williamsville Road, 1 mi west of Hubbardston, Mass.	-	-	9-17-85 9-19-85	*1.4 *1.3
01172700 Natty Pond Brook	do	Lat 42°28'41", long 72°01'26", Worcester County, at bridge on Williamsville Road, 0.9 mi west of Hubbardston, Mass.	2.51	1960, 1984	5- 7-85 6-26-85 7-25-85	4.2 2.0 *.81
01172730 Natty Pond Brook	do	Lat 42°28'05", long 71°01'25", Worcester County, 800 ft downstream from bridge on Parson Road, 0.9 mi southwest of Hubbardston, Mass.	-	-	3- 4-85 4- 3-85	*3.6 7.6
01172740 Natty Pond Brook	do	Lat 42°28'05", long 72°01'14", Worcester County, 1,200 ft downstream from bridge on Parson Road, 0.8 mi southwest of Hubbardston, Mass.	-	-	5-22-85 5-23-85 8-12-85 8-13-85 8-19-85 8-20-85	12 11 1.8 1.3 4.1 3.5
01172750 Natty Pond Brook	do	Lat 42°27'52", long 72°00'49", Worcester County, at dirt road crossing, 770 ft west of Barre Road, and 0.8 mi south of Hubbardston, Mass.	-	-	3- 4-85 5- 7-85 5-22-85 5-23-85 7-12-85 7-25-85 8- 5-85 8-12-85 8-19-85 8-20-85 8-21-85 8-23-85 9-30-85	*3.2 5.6 10 10 1.2 *.58 *1.8 1.8 3.7 2.9 2.3 *2.0 6.0
01172770 Natty Pond Brook	do	Lat 42°27'29", long 72°01'07", Worcester County, 5,000 ft upstream from bridge on Hale Road, 1.3 mi southwest of Hubbardston, Mass.	-	-	5-23-85 5-24-85	13 9.9
01178245 Swift River	Westfield River	Lat 42°30'08", long 72°51'00", Franklin County, at culvert on State Highway 116, at Spruce Corner, Mass.	11.0	1984	9- 4-85	*2.6
01180145 Middle Branch Westfield River	do	Lat 42°22'24", long 72°58'11", Hampshire County, 1.8 mi upstream from mouth of Glendale Brook, 3.0 mi northeast of Middlefield, Mass.	-	-	10- 9-84 10-10-84	*3.1 *3.3
01180200 Middle Branch Westfield River	do	Lat 42°21'22", long 72°57'52", Hampshire County, 0.4 mi upstream from mouth of Glendale Brook, 2.9 mi east of Middlefield, Mass.	-	1984	10-10-84	*3.5
01180220 Middle Branch Westfield River	do	Lat 42°20'30", long 72°57'05", Hampden County, at bridge on town road, 1.1 mi downstream from Glendale Brook, and 1.7 mi northwest of North Chester, Mass.	-	-	11-27-84	8.9
01180240 Middle Branch Westfield River	do	Lat 42°20'15", long 72°56'12", Hampden County, at bridge on town road, 2.0 mi downstream from Glendale Brook, and 1.0 mi north of North Chester, Mass.	-	-	11-28-84	11

See footnotes at end of table.

Discharge measurements made at 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)
		Connecticut River basin--Continued				
01183130 Dickinson Brook	Munn Brook	Lat 42°04'11", long 72°50'53", Hampden County, at culvert on State Highway 57, 0.7 mi east of Granville, Mass.	6.29	1984	9- 4-85	2.0
01183290 Powdermill Brook	Westfield River	Lat 42°09'45", long 72°45'49", Hampden County, at culvert on Russellville Road, 2.9 mi north of Westfield, Mass.	2.50	1984	6-11-85 9- 5-85	.71 .37
01183302 Arm Brook	Powdermill Brook	Lat 42°08'38', long 72°44'22", Hampden County, at culvert on Lockhouse Road, at Westfield, Mass.	4.43	1957-58, 1984	6-11-85	.93
01183365 Johnson Brook	Great Brook	Lat 42°02'24", long 72°47'07", Hampden County, at culvert on U.S. Highway 202, 1.5 mi north of Congamond, Mass.	3.67	1967, 1984	9- 4-85	1.0
01183375 Great Brook	Westfield River	Lat 42°03'08", long 72° 46'03", Hampden County, at culvert on Sheep Pasture Road, at Southwick, Mass.	12.1	1967, 1984	9- 5-85	1.8
01184750 Thomas Brook	West Branch Farmington River	Lat 42°14'49", long 73°06'46", Berkshire County, at culvert on Werden Cross Road, 1.1 mi north of North Otis, Mass.	7.03	1984	6-11-85 9- 4-85 9-23-85	3.9 3.6 *1.4
01184800 Dimmock Brook	do	Lat 42°11'43", long 73°04'40", Berkshire County, at culvert on State Highway 23, 0.8 mi east of Otis, Mass.	4.04	1984	6-11-85 9- 4-85 9-23-85	1.3 1.0 *.46
01184850 Benton Brook	do	Lat 42°11'05", long 73°05'03", Berkshire County, at culvert on State Highway 8, 0.7 mi southeast of Otis, Mass.	2.45	1984	6-11-85 9- 4-85 9-23-85	2.4 1.8 *.81
01185130 Miner Brook	do	Lat 42°09'11", long 73°04'29", Berkshire County, at culvert on State Highway 8, 2.9 mi south of Otis, Mass.	1.53	1984	6-11-85 9- 4-85 9-32-85	.59 .55 *.40
01185450 Clam River	do	Lat 42°06'05", long 73°05'48", Berkshire County, at bridge on Beech Plain Road at intersection with State Highway 57, 1.2 mi northwest of New Boston, Mass.	28.9	1965, 1984	9- 3-85 9-23-85	11 *5.7
01185485 Silver Brook	Clam River	Lat 42°06'04", long 73°05'48", Berkshire County, at culvert on State Highway 57, 1.2 mi northwest of New Boston, Mass.	6.79	1984	9- 3-85 9-23-85	3.2 1.5
01185550 Thorp Brook	West Branch Farmington River	Lat 42°03'51", long 73°03'55", Berkshire County, at culvert on State Highway 8, 2.1 mi south of New Boston, Mass.	2.62	1984	9- 4-85 9-23-85	.68 *.64
01185600 Slocum Brook	do	Lat 42°02'45", long 73°01'36", Hampden County, at culvert on dirt road, just off New Colebrook River Road, at the entrance to Camp Kinderland, 2.6 mi south of Tolland Center, Mass.	2.66	1984	6-11-85 9- 4-85 9-23-85	.63 .47 *.31
01186300 Sandy Brook	Still River	Lat 42°02'37", long 73°08'13", Berkshire County, at culvert on New Marlborough Road, 0.1 mi north of Connecticut State line, and 4.6 mi south of Sandisfield, Mass.	9.85	1984	9- 3-85 9-23-85	7.3 *2.2
01187280 Halfway Brook	Hubbard River	Lat 42°03'00", long 72°58'16", Hampden County, at culvert on West Hartland Road, in Granville State Forest, 2.3 mi southwest of West Granville, Mass.	1.05	1984	6-11-85 9- 4-85 9-23-85	.32 .19 *.13

† Operated as a continuous-record station.
†† Operated as a crest-stage partial-record station.
(p) Peak flow.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
MERRIMACK RIVER BASIN									
01094400 NORTH NASHUA RIVER AT FITCHBURG, MASS.									
OCT 1984					APR 1985				
24...	1005	31	220	14.5	02...	0728	96	174	6.0
NOV					MAY				
26...	0740	22	220	5.0	15...	0619	43	230	14.0
JAN 1985					JUL				
15...	1315	43	225	3.0	02...	0735	35	181	18.0
FEB					AUG				
20...	0744	69	195	2.0	21...	1007	21	298	19.0
01094500 NORTH NASHUA RIVER NEAR LEOMINSTER, MASS.									
OCT 1984					APR 1985				
25...	0850	49	290	11.5	02...	1330	167	260	--
NOV					MAY				
26...	1205	46	250	6.0	15...	0925	68	310	13.0
JAN 1985					JUL				
15...	1455	76	250	3.0	02...	1125	56	267	19.0
FEB					AUG				
25...	0940	265	162	--	21...	1340	39	330	20.0
01096000 SQUANNACOOK RIVER NEAR WEST GROTON, MASS.									
JAN 1985					JUN 1985				
04...	1000	77	95	0.0	26...	1425	15	127	18.5
APR					AUG				
01...	1205	87	92	--	13...	0850	11	124	20.5
MAY									
06...	1000	70	100	11.5					
01096500 NASHUA RIVER AT EAST PEPPERELL, MASS.									
NOV 1984					MAY 1985				
14...	1430	359	186	--	06...	1225	376	193	13.5
JAN 1985					JUN				
04...	1330	387	94	5.0	26...	0820	65	220	19.5
FEB					AUG				
11...	1245	191	293	3.0	13...	1225	231	218	18.5
APR									
01...	1015	383	168	8.5					
01097000 ASSABET RIVER AT MAYNARD, MASS.									
OCT 1984					APR 1985				
18...	0900	31	300	12.0	08...	1055	180	220	11.0
NOV					MAY				
30...	1415	77	250	7.0	15...	1315	76	240	19.0
JAN 1985					JUL				
14...	1225	83	260	1.0	05...	1000	69	232	22.0
FEB					AUG				
27...	1030	211	187	--	20...	1210	38	245	22.0
01097300 NASHOBA BROOK NEAR ACTON, MASS.									
OCT 1984					APR 1985				
18...	1415	1.6	176	12.0	08...	0720	15	180	7.0
NOV					MAY				
30...	0915	8.1	198	6.0	16...	0725	7.6	196	13.0
JAN 1985					JUL				
14...	0805	6.3	220	0.0	05...	0715	3.0	206	19.0
FEB					AUG				
27...	0645	17	165	--	20...	0740	1.0	195	18.0
01098530 SUDBURY RIVER AT SAXONVILLE, MASS.									
OCT 1984					APR 1985				
19...	1320	31	230	15.0	03...	1030	115	270	8.0
DEC					MAY				
03...	0855	58	240	4.0	14...	1315	106	260	18.0
JAN 1985					JUL				
07...	0730	162	119	1.0	05...	0730	71	243	22.5
FEB					AUG				
26...	1215	139	260	--	26...	1125	100	213	21.0
01099500 CONCORD RIVER BELOW RIVER MEADOW BROOK AT LOWELL, MASS.									
OCT 1984					MAY 1985				
01...	1520	71	--	14.5	10...	1150	595	220	15.5
JAN 1985					JUL				
03...	1300	583	250	5.0	01...	1305	318	225	20.5
APR					AUG				
05...	0905	566	250	7.0	13...	1450	222	230	26.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (UM/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
MERRIMACK RIVER BASIN--Continued									
01100000 MERRIMACK RIVER BELOW CONCORD RIVER AT LOWELL, MASS.									
OCT 1984					MAY 1985				
01...	1330	2540	--	14.0	10...	0855	8380	178	15.0
NOV					JUL				
27...	1200	2780	160	--	01...	1410	4630	200	22.0
APR 1985					AUG				
05...	1035	8420	215	7.0	13...	1400	2460	180	26.5
01100600 SHAWSHEEN RIVER NEAR WILMINGTON, MASS.									
OCT 1984					APR 1985				
11...	1450	13	280	14.5	04...	0745	63	420	5.0
NOV					MAY				
27...	0710	12	305	2.0	16...	1045	12	340	13.5
JAN 1985					JUL				
10...	1230	20	400	0.5	08...	1100	5.5	302	21.5
FEB					AUG				
28...	1030	41	300	--	27...	0815	30	214	18.0
PARKER RIVER BASIN									
01101000 PARKER RIVER AT BYFIELD, MASS.									
OCT 1984					APR 1985				
10...	0715	4.3	200	13.0	05...	0930	34	134	6.0
NOV					MAY				
28...	1055	10	149	4.0	17...	1105	16	145	15.5
JAN 1985					JUL				
08...	1455	22	52	0.5	09...	0900	4.7	164	21.0
FEB					AUG				
22...	0920	33	138	--	28...	1500	0.79	185	19.0
IPSWICH RIVER BASIN									
01101500 IPSWICH RIVER AT SOUTH MIDDLETON, MASS.									
OCT 1984					APR 1985				
10...	1520	4.2	250	13.0	04...	1200	54	220	7.0
NOV					MAY				
27...	1510	13	220	5.0	16...	1435	28	220	16.0
JAN 1985					JUL				
08...	0830	19	120	0.5	03...	0640	5.1	179	19.0
FEB					AUG				
28...	0615	49	175	--	27...	1210	14	219	19.0
01102000 IPSWICH RIVER NEAR IPSWICH, MASS.									
OCT 1984					APR 1985				
10...	1300	20	240	12.0	05...	1130	107	182	8.0
NOV					MAY				
29...	1220	49	220	6.5	17...	1540	71	187	17.0
JAN 1985					JUL				
08...	1210	84	83	0.5	09...	1245	30	199	23.5
FEB					AUG				
22...	0720	129	220	--	27...	1450	16	224	21.0
MYSTIC RIVER BASIN									
01102500 ABERJONA RIVER AT WINCHESTER, MASS.									
OCT 1984					APR 1985				
11...	1130	4.5	630	13.0	01...	1315	37	720	6.0
DEC					MAY				
06...	0940	61	570	4.0	13...	1235	11	600	16.0
JAN 1985					JUL				
09...	1515	15	480	1.5	03...	1310	7.4	518	20.5
FEB					AUG				
19...	1330	17	570	4.0	26...	0735	29	272	19.0
CHARLES RIVER BASIN									
01104000 MOTHER BROOK AT DEDHAM, MASS.									
OCT 1984					APR 1985				
22...	0750	2.5	300	15.0	03...	0724	46	220	7.5
DEC					MAY				
04...	0735	22	200	4.0	13...	0619	17	197	17.0
JAN 1985					JUL				
11...	0750	15	113	0.0	01...	0719	5.4	241	18.0
FEB					AUG				
26...	0654	63	192	--	23...	0724	0.56	640	12.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
CHARLES RIVER BASIN--Continued									
01104200 CHARLES RIVER AT WELLESLEY, MASS.									
OCT 1984					APR 1985				
17...	1225	64	270	14.0	03...	0844	191	240	8.0
DEC					MAY				
05...	1030	124	230	4.0	14...	0913	137	210	18.5
JAN 1985					JUL				
01...	1300	213	105	0.0	01...	1225	65	222	20.0
FEB					AUG				
26...	0800	254	200	--	23...	1019	23	245	22.0
01104500 CHARLES RIVER AT WALTHAM, MASS.									
OCT 1984					APR 1985				
15...	1500	73	250	14.0	01...	0955	204	250	9.0
DEC					MAY				
05...	1450	151	230	5.0	14...	0630	157	230	18.0
JAN 1985					JUL				
11...	1330	151	105	0.5	01...	1400	136	241	18.0
FEB					AUG				
19...	0935	330	260	2.0	23...	1415	25	239	24.0
NEPONSET RIVER BASIN									
01105000 NEPONSET RIVER AT NORWOOD, MASS.									
OCT 1984					APR 1985				
18...	1245	8.8	230	13.0	22...	1600	36	210	14.0
DEC					JUN				
04...	1420	25	200	5.0	10...	1530	16	218	23.5
JAN 1985					JUL				
15...	0730	21	240	1.5	29...	1500	12	230	25.5
FEB					SEP				
22...	0845	34	235	2.0	10...	1100	56	220	19.0
01105500 EAST BRANCH NEPONSET RIVER AT CANTON, MASS.									
OCT 1984					APR 1985				
18...	1455	11	197	12.0	25...	1540	26	210	15.0
DEC					JUN				
04...	1145	31	177	4.0	04...	1550	12	186	24.0
JAN 1985					JUL				
15...	0945	23	220	1.0	29...	1400	7.8	210	26.0
FEB					SEP				
22...	1115	30	205	2.0	10...	1400	51	174	19.0
WEYMOUTH FORE RIVER BASIN									
01105585 TOWN BROOK AT QUINCY, MASS.									
OCT 1984					JUN 1985				
15...	0820	1.3	590	13.0	04...	1130	2.4	664	15.0
DEC					JUL				
04...	0755	2.7	360	1.0	29...	1015	6.0	630	18.0
MAR 1985					SEP				
04...	0730	14	775	3.0	13...	0850	6.9	710	15.5
APR									
26...	0905	4.4	730	11.0					
WEYMOUTH BACK RIVER BASIN									
01105600 OLD SWAMP RIVER NEAR SOUTH WEYMOUTH, MASS.									
OCT 1984					MAY 1985				
15...	1015	1.6	240	11.5	03...	1455	31	100	4.5
DEC					04...	0845	30	122	8.5
03...	0740	2.3	180	3.0	JUN				
JAN 1985					05...	0945	1.9	260	15.5
14...	0715	3.6	220	0.5	JUL				
MAR					22...	1030	4.4	118	21.0
04...	0955	4.1	210	5.0	AUG				
APR					01...	0845	9.9	153	18.5
23...	0945	5.2	225	8.0	SEP				
					11...	1505	4.4	230	19.0
NORTH RIVER BASIN									
01105730 INDIAN HEAD RIVER AT HANOVER, MASS.									
OCT 1984					APR 1985				
15...	1245	13	230	13.0	23...	1215	32	235	12.0
DEC					JUN				
03...	1005	19	198	5.0	05...	1155	15	261	19.5
JAN 1985					JUL				
14...	1000	23	280	1.0	22...	1300	7.0	255	27.0
MAR					SEP				
04...	1230	40	205	2.0	11...	1225	55	230	18.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
JONES RIVER BASIN									
01105870 JONES RIVER AT KINGSTON, MASS.									
OCT 1984					APR 1985				
15...	1455	13	96	13.0	23...	1435	15	97	12.0
DEC					JUN				
03...	1245	16	90	5.0	05...	1515	6.2	94	16.5
JAN 1985					JUL				
14...	1220	19	113	1.0	23...	1315	8.6	97	24.0
MAR					SEP				
04...	1445	20	79	3.0	11...	0825	40	73	16.5
HERRING RIVER BASIN									
01105880 HERRING RIVER AT NORTH HARWICH, MASS.									
OCT 1984					APR 1985				
16...	0715	9.2	92	12.5	24...	0830	8.9	84	10.5
DEC					JUN				
07...	0705	9.2	83	4.5	06...	0835	13	85	16.5
JAN 1985					JUL				
17...	1640	6.7	60	1.5	23...	0940	4.6	91	20.0
MAR					SEP				
05...	0640	8.0	85	4.0	11...	1343	11	84	19.5
TAUNTON RIVER BASIN									
01108000 TAUNTON RIVER NEAR BRIDGEWATER, MASS.									
JUN 1985					JUL 1985				
07...	1445	179	222	17.0	24...	0845	76	250	24.0
01108500 WADING RIVER AT WEST MANSFIELD, MASS.									
OCT 1984					APR 1985				
17...	1300	0.4	168	13.0	25...	1000	9.9	210	9.5
DEC					JUN				
05...	1445	6.3	110	3.0	10...	0930	8.1	222	20.0
JAN 1985					JUL				
16...	1400	6.7	210	0.5	26...	0930	0.9	230	24.0
FEB									
25...	1430	27	200	6.0					
01109000 WADING RIVER NEAR NORTON, MASS.									
OCT 1984					APR 1985				
16...	1625	5.3	250	2.5	25...	1215	27	195	12.0
DEC					JUN				
06...	0730	36	210	2.5	10...	1145	21	189	19.0
JAN 1985					JUL				
17...	0730	19	187	0.5	26...	1200	5.5	225	23.0
FEB									
25...	1225	56	153	2.5					
01109060 THREEMILE RIVER AT NORTH DIGHTON, MASS.									
OCT 1984					APR 1985				
17...	0915	34	205	11.5	24...	1700	80	200	12.0
DEC					JUN				
06...	0945	88	154	3.5	07...	1100	78	194	17.5
JAN 1985					JUL				
17...	0930	49	92	0.5	24...	1525	20	210	25.0
FEB					SEP				
25...	1000	136	165	3.0	12...	1345	71	200	18.0
01109070 SEGREGANSET RIVER NEAR DIGHTON, MASS.									
OCT 1984					APR 1985				
17...	0705	2.1	92	10.5	24...	1415	6.0	77	8.5
DEC					JUN				
06...	1210	22	71	2.5	06...	0825	16	64	13.0
JAN 1985					JUL				
17...	1210	4.7	19	0.5	24...	1300	2.0	81	21.0
FEB					SEP				
25...	0805	25	64	2.0	12...	1025	9.4	80	14.0
BLACKSTONE RIVER BASIN									
01110000 QUINSIGAMOND RIVER AT NORTH GRAFTON, MASS.									
OCT 1984					MAY 1985				
17...	1555	3.9	250	13.0	02...	0910	12	325	13.0
DEC					JUN				
05...	1210	15	250	3.0	11...	0950	11	273	21.5
JAN 1985					JUL				
16...	0800	13	310	1.0	25...	1530	2.7	325	25.0
FEB					SEP				
26...	1030	28	255	3.5	12...	1455	30	--	19.0
APR									
29...	1315	1.3	320	15.0					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
BLACKSTONE RIVER BASIN--Continued									
01111200 WEST RIVER BELOW WEST HILL DAM NEAR UXBRIDGE, MASS.									
OCT 1984					APR 1985				
18...	0710	5.4	146	11.0	29...	1040	19	168	13.0
DEC					JUN				
05...	0710	29	85	2.0	11...	1425	13	162	22.0
JAN 1985					JUL				
16...	1125	23	108	0.5	25...	1105	4.5	158	22.0
FEB					SEP				
26...	0715	58	110	2.5	12...	0845	48	--	15.5
01111300 NIPMUC RIVER NEAR HARRISVILLE, R.I.									
OCT 1984									
04...	0925	7.3	58	11.0					
POTOWOMUT RIVER BASIN									
01117000 HUNT RIVER NEAR EAST GREENWICH, R.I.									
OCT 1984									
03...	1235	31	98	13.0					
PAWCATUCK RIVER BASIN									
01117420 USQUEPAUG RIVER NEAR USQUEPAUG, R.I.									
DEC 1984									
04...	1030	40	58	4.0					
01117500 PAWCATUCK RIVER AT WOOD RIVER JUNCTION, R.I.									
AUG 1985					SEP 1985				
28...	0940	175	58	21.0	26...	0930	166	69	17.0
THAMES RIVER BASIN									
01123360 QUINEBAUG RIVER BELOW EAST BRIMFIELD DAM AT FISKDALE, MASS.									
NOV 1984					JUL 1985				
08...	1258	24	--	11.0	02...	0950	66	86	22.0
JAN 1985					AUG				
28...	1130	22	104	2.0	27...	0950	59	90	22.5
MAR									
25...	1007	99	82	5.0					
01123600 QUINEBAUG RIVER BELOW WESTVILLE DAM NEAR SOUTHBRIDGE, MASS.									
NOV 1984					MAY 1985				
05...	0955	38	135	9.5	15...	1000	63	113	18.5
JAN 1985					JUL				
28...	0810	33	144	1.0	02...	1220	83	112	22.0
MAR					AUG				
25...	0830	129	112	0.0	27...	1125	76	125	21.5
01124350 FRENCH RIVER BELOW HODGES VILLAGE DAM AT HODGES VILLAGE, MASS.									
NOV 1984					MAY 1985				
21...	0830	18	125	--	09...	1030	53	115	12.5
JAN 1985					JUN				
07...	0950	27	127	0.5	24...	1200	15	114	21.0
FEB					AUG				
14...	1000	79	--	2.0	14...	1055	8.8	118	23.5
APR									
03...	0915	59	157	5.5					
01124500 LITTLE RIVER NEAR OXFORD, MASS.									
NOV 1984					MAY 1985				
21...	1110	13	95	--	09...	0900	48	125	13.5
JAN 1985					JUN				
07...	1315	32	122	2.0	24...	1525	15	124	22.5
FEB					AUG				
14...	1045	42	--	1.0	14...	1310	14	128	20.5
APR									
03...	1020	47	115	6.0					
CONNECTICUT RIVER BASIN									
01162000 MILLERS RIVER NEAR WINCHENDON, MASS.									
NOV 1984					JUN 1985				
16...	0915	113	58	--	27...	1115	26	62	15.0
APR 1985					AUG				
02...	1245	125	55	4.5	15...	1400	16	97	25.0
MAY									
07...	1200	89	62	13.0					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
CONNECTICUT RIVER BASIN--Continued									
01162500 PRIEST BROOK NEAR WINCHENDON, MASS.									
NOV 1984					MAY 1985				
19...	1515	11	65	--	07...	1320	24	49	11.5
JAN 1985					JUN				
09...	1045	54	51	0.0	27...	0900	22	47	15.5
APR					AUG				
02...	1025	31	44	4.0	15...	1130	2.8	55	23.0
01163200 OTTER RIVER AT OTTER RIVER, MASS.									
JAN 1985					MAY 1985				
09...	1430	27	190	0.5	07...	0905	43	177	10.5
FEB					AUG				
12...	0845	14	289	0.5	15...	1540	16	177	25.5
APR									
01...	1550	43	185	5.0					
01164000 MILLERS RIVER AT SOUTH ROYALSTON, MASS.									
JAN 1985					JUL 1985				
09...	0930	210	--	0.0	03...	0915	102	133	22.5
APR					AUG				
02...	0900	133	98	6.5	15...	0930	59	215	24.0
MAY									
07...	1455	258	128	13.0					
01165000 EAST BRANCH TULLY RIVER NEAR ATHOL, MASS.									
NOV 1984					MAY 1985				
08...	1630	11	--	9.0	06...	1440	26	38	14.0
DEC					JUN				
26...	1140	84	42	3.0	18...	1605	15	161	19.0
FEB 1985					AUG				
12...	1545	25	48	1.0	01...	1004	13	44	23.0
MAR					SEP				
22...	1145	137	39	4.0	20...	1125	122	42	18.5
01165300 LAKE ROHUNTA OUTLET NEAR ATHOL, MASS.									
NOV 1984					APR 1985				
08...	1340	54	74	8.0	29...	1250	0.44	99	17.0
DEC					JUN				
26...	1230	35	82	3.5	18...	1250	10	90	21.0
FEB 1985					AUG				
11...	1420	13	102	1.5	01...	0910	15	92	23.0
MAR					SEP				
22...	1115	44	88	5.0	20...	0825	7.0	83	19.0
01166500 MILLERS RIVER AT ERVING, MASS.									
NOV 1984					MAY 1985				
01...	1500	221	144	11.0	03...	1035	229	139	13.0
DEC					JUN				
26...	1530	480	100	1.0	18...	0910	245	161	18.0
FEB 1985					AUG				
13...	0800	400	143	0.0	01...	0725	339	132	23.0
MAR					SEP				
22...	0945	775	96	4.0	20...	0740	274	124	17.0
01168151 DEERFIELD RIVER NEAR ROWE, MASS.									
OCT 1984					MAY 1985				
31...	1030	71	42	16.0	01...	1210	90	35	15.0
DEC					JUN				
21...	0930	1110	35	8.0	12...	1330	80	43	20.0
FEB 1985					JUL				
06...	0840	991	36	3.5	24...	1305	904	44	23.0
MAR					SEP				
20...	1000	1160	43	5.0	12...	0840	1120	42	20.0
01168500 DEERFIELD RIVER AT CHARLEMONT, MASS.									
OCT 1984					MAY 1985				
31...	1345	123	48	14.0	01...	1430	189	53	15.0
DEC					JUN				
19...	1100	277	45	4.5	13...	1505	509	54	17.0
FEB 1985					JUL				
06...	1000	171	47	0.0	25...	1540	858	46	25.0
MAR					SEP				
20...	1125	1300	48	6.0	11...	1635	928	45	21.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
CONNECTICUT RIVER BASIN--Continued									
01169000 NORTH RIVER AT SHATTUCKVILLE, MASS.									
NOV 1984					MAY 1985				
07...	1025	51	132	--	02...	1335	79	136	14.0
DEC					JUN				
20...	1115	116	109	2.5	13...	1055	53	168	15.0
FEB 1985					JUL				
06...	1345	50	124	0.0	25...	1240	12	335	24.0
MAR					SEP				
02...	1145	189	99	2.0	12...	1210	39	188	15.0
01169900 SOUTH RIVER NEAR CONWAY, MASS.									
OCT 1984					MAY 1985				
30...	0805	8.5	167	8.0	02...	1530	17	135	16.0
DEC					JUN				
20...	1410	28	123	3.0	14...	0745	15	144	12.0
FEB 1985					JUL				
08...	0842	9.4	138	0.0	26...	0745	4.1	190	21.0
MAR					SEP				
20...	1320	46	127	6.0	13...	0755	8.2	181	10.0
01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MASS.									
OCT 1984					MAY 1985				
29...	1415	190	--	12.0	03...	0740	345	102	13.0
DEC					JUN				
19...	1315	1320	76	4.5	17...	1515	1110	96	20.0
FEB 1985					JUL				
06...	1535	667	94	1.0	31...	1500	1120	71	23.0
MAR					SEP				
21...	1450	1620	93	3.0	19...	1555	736	74	20.0
01170100 GREEN RIVER NEAR COLRAIN, MASS.									
NOV 1984					MAY 1985				
07...	1435	19	89	6.5	02...	0805	42	86	10.0
DEC					JUN				
20...	0810	40	72	1.5	13...	0810	28	92	13.0
FEB 1985					JUL				
07...	0900	23	85	0.0	25...	0805	6.0	120	16.0
MAR					SEP				
21...	0805	100	77	0.0	12...	1415	17	98	13.0
01170500 CONNECTICUT RIVER AT MONTAGUE CITY, MASS.									
OCT 1984					MAY 1985				
30...	1600	1930	131	14.0	03...	1000	13600	78	12.0
FEB 1985					JUN				
11...	1140	11000	118	1.0	12...	1630	12500	110	19.0
MAR					SEP				
22...	0900	17200	97	3.0	18...	0805	2200	112	18.0
01171300 FORT RIVER NEAR AMHERST, MASS.									
NOV 1984					MAY 1985				
06...	1325	58	92	10.0	02...	0839	18	93	13.5
DEC					JUN				
21...	0853	40	--	3.0	18...	1520	33	87	18.5
JAN 1985					AUG				
29...	0744	13	127	--	01...	1607	90	75	19.0
MAR					SEP				
21...	1110	55	75	3.5	26...	1537	10	112	16.0
01171500 MILL RIVER AT NORTHAMPTON, MASS.									
OCT 1984					APR 1985				
11...	1215	8.4	--	13.0	30...	1547	26	99	19.0
NOV					JUN				
06...	1640	26	113	11.0	19...	0742	27	--	17.0
DEC					JUL				
20...	1345	48	--	4.0	31...	1202	8.4	127	20.0
JAN 1985					SEP				
30...	0934	40	120	0.0	26...	0845	16	131	14.5
MAR									
21...	0741	64	66	2.0					
01172500 WARE RIVER NEAR BARRE, MASS.									
APR 1985					JUN 1985				
04...	1500	96	48	4.0	25...	0935	23	64	17.0
MAY					AUG				
08...	1045	80	52	10.5	16...	1135	67	56	20.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
CONNECTICUT RIVER BASIN--Continued									
01173500 WARE RIVER AT GIBBS CROSSING, MASS.									
NOV 1984					MAY 1985				
05...	1440	128	81	10.0	01...	0829	69	--	16.0
DEC					JUN				
21...	1315	260	98	2.5	17...	1421	65	--	20.0
JAN 1985					AUG				
30...	1410	167	94	1.0	02...	0921	394	67	19.0
MAR					SEP				
25...	1426	289	71	8.0	27...	0913	182	81	17.5
01174500 EAST BRANCH SWIFT RIVER NEAR HARDWICK, MASS.									
NOV 1984					JUN 1985				
20...	1220	28	43	--	25...	1220	29	52	20.5
APR 1985					AUG				
04...	1340	43	55	6.5	16...	1015	75	51	25.0
MAY									
08...	0930	29	53	13.5					
01174600 CADWELL CREEK NEAR PELHAM, MASS.									
NOV 1984					MAY 1985				
06...	0840	0.74	58	11.0	02...	1358	0.28	64	17.0
DEC					JUN				
20...	0800	1.3	--	3.0	18...	1023	2.4	--	16.0
JAN 1985					AUG				
29...	1513	0.22	63	0.0	01...	1330	1.6	50	17.0
MAR					SEP				
22...	1249	0.91	62	1.5	26...	1325	0.09	62	16.0
01174900 CADWELL CREEK NEAR BELCHERTOWN, MASS.									
NOV 1984					MAY 1985				
06...	0930	3.9	42	10.0	02...	1707	1.8	36	13.0
DEC					JUN				
20...	1107	5.2	--	3.0	18...	0804	8.4	--	15.0
JAN 1985					AUG				
29...	1311	1.5	49	0.0	01...	0834	17	33	16.0
MAR					SEP				
22...	0855	5.6	32	0.0	26...	1423	0.94	35	15.5
01175500 SWIFT RIVER AT WEST WARE, MASS.									
NOV 1984					JUN 1985				
06...	1138	113	38	14.5	18...	1325	110	37	13.5
DEC					JUL				
21...	1108	109	--	6.0	31...	1520	118	40	17.0
JAN 1985					SEP				
30...	1113	115	41	1.0	23...	1551	117	39	20.0
MAR									
26...	0757	22	52	1.0					
01175670 SEVENMILE RIVER NEAR SPENCER, MASS.									
NOV 1984					MAY 1985				
13...	1310	11	58	--	08...	1400	10	51	14.5
JAN 1985					JUL				
10...	1220	5.9	57	0.0	02...	1430	8.5	53	--
APR					AUG				
04...	0950	16	50	3.0	14...	1500	2.4	54	25.5
01176000 QUABOAG RIVER AT WEST BRIMFIELD, MASS.									
NOV 1984					MAY 1985				
08...	1050	72	120	8.0	03...	0859	128	110	12.0
DEC					JUN				
27...	0950	148	--	0.5	17...	1052	225	69	19.0
JAN 1985					AUG				
28...	1453	77	130	--	02...	1050	365	76	21.5
MAR					SEP				
26...	1355	219	97	6.0	23...	1228	117	104	19.0
01177000 CHICOPEE RIVER AT INDIAN ORCHARD, MASS.									
NOV 1984					JUN 1985				
08...	0800	629	98	11.0	20...	0806	783	--	19.5
DEC					JUL				
18...	1457	573	--	5.0	29...	1153	94	115	25.0
FEB 1985					SEP				
01...	0807	111	132	0.0	24...	1153	308	98	20.0
MAR					24...	1406	308	98	--
19...	1549	886	84	3.0					
APR									
30...	0748	606	--	15.0					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
CONNECTICUT RIVER BASIN--Continued									
01179500 WESTFIELD RIVER AT KNIGHTVILLE, MASS.									
NOV 1984					JUN 1985				
07...	0755	131	66	6.0	19...	1018	115	--	18.0
DEC					JUL				
09...	1550	155	--	4.5	30...	1625	42	85	28.0
MAR 1985					SEP				
20...	1548	245	58	2.0	25...	1630	72	88	21.0
APR									
29...	1836	141	71	16.5					
01180500 MIDDLE BRANCH WESTFIELD RIVER AT GOSS HEIGHTS, MASS.									
NOV 1984					APR 1985				
07...	0908	25	55	11.0	29...	1645	38	50	13.0
DEC					JUN				
19...	1209	61	--	4.5	19...	1153	27	--	21.0
FEB 1985					JUL				
07...	1043	20	36	0.0	31...	0907	11	56	22.0
MAR					SEP				
20...	1300	88	42	4.5	25...	0829	13	61	17.5
01181000 WEST BRANCH WESTFIELD RIVER AT HUNTINGTON, MASS.									
NOV 1984					APR 1985				
07...	1106	42	101	9.0	29...	1407	69	97	14.0
DEC					JUN				
19...	0907	83	--	0.5	19...	1454	50	100	21.0
JAN 1985					JUL				
31...	1022	38	107	0.0	30...	1331	25	113	24.0
FEB					SEP				
13...	1020	577	96	0.0	25...	1430	30	113	18.5
MAR									
20...	0947	163	77	4.0					
01183500 WESTFIELD RIVER NEAR WESTFIELD, MASS.									
NOV 1984					APR 1985				
07...	1335	340	127	11.0	30...	1032	347	121	14.0
DEC					JUN				
19...	0653	410	--	4.5	20...	1018	239	--	20.0
FEB 1985					JUL				
07...	1442	197	64	0.0	30...	1045	138	132	24.0
MAR					SEP				
19...	1234	762	82	5.0	24...	0815	121	188	12.5
01185500 WEST BRANCH FARMINGTON RIVER NEAR NEW BOSTON, MASS.									
OCT 1984					APR 1985				
11...	1210	15	--	17.5	12...	1009	105	--	6.0
NOV					MAY				
30...	1230	81	--	5.0	28...	1017	49	--	8.0
JAN 1985					AUG				
24...	1400	49	--	0.5	05...	1052	61	--	17.0
MAR					SEP				
07...	1405	121	--	0.5	19...	1305	30	--	18.5
19...	0805	99	35	0.0					
HOUSATONIC RIVER BASIN									
01197000 EAST BRANCH HOUSATONIC RIVER AT COLTSVILLE, MASS.									
NOV 1984					APR 1985				
05...	1410	103	192	8.5	30...	0825	35	280	12.0
DEC					JUN				
18...	0945	79	200	5.0	11...	1455	23	306	18.0
FEB 1985					JUL				
04...	1425	31	225	2.5	22...	1315	13	335	21.0
MAR					SEP				
18...	1345	148	159	2.5	09...	1345	52	136	19.0
01197500 HOUSATONIC RIVER NEAR GREAT BARRINGTON, MASS.									
OCT 1984					APR 1985				
05...	1340	250	--	15.0	12...	0900	348	--	4.5
NOV					MAY				
30...	1017	353	--	8.0	28...	0802	157	--	8.0
JAN 1985					AUG				
24...	1021	200	--	0.5	05...	0802	160	--	18.0
MAR					SEP				
07...	0840	430	--	2.5	19...	0950	92	--	19.0
18...	1127	763	135	3.0					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)
HUDSON RIVER BASIN									
01331500 HOOSIC RIVER AT ADAMS, MASS.									
NOV 1984					APR 1985				
06...	1025	52	189	8.0	30...	0945	43	210	11.0
DEC					JUN				
18...	1045	70	160	4.0	11...	1015	21	207	16.0
FEB 1985					JUL				
05...	0855	30	210	1.0	23...	0755	15	223	21.0
MAR					SEP				
19...	0900	86	240	1.0	10...	1010	31	223	16.0
01332000 NORTH BRANCH HOOSIC RIVER AT NORTH ADAMS, MASS.									
NOV 1984					APR 1985				
06...	1600	67	64	8.0	30...	1340	47	72	13.0
DEC					JUN				
18...	1520	102	52	4.5	12...	0905	15	119	15.0
FEB 1985					JUL				
05...	1150	23	110	0.0	24...	0935	12	134	16.0
MAR					SEP				
19...	1135	84	92	0.0	11...	1425	31	93	16.0
01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MASS.									
NOV 1984					MAY 1985				
07...	0845	123	223	6.0	01...	0925	123	230	14.0
DEC					JUN				
19...	0845	214	171	3.5	12...	0845	73	269	16.0
FEB 1985					JUL				
05...	1545	80	250	0.0	23...	1630	54	218	23.0
MAR					SEP				
20...	0835	284	206	3.0	11...	1015	100	242	15.0
01333000 GREEN RIVER AT WILLIAMSTOWN, MASS.									
NOV 1984					APR 1985				
06...	1425	29	189	8.0	30...	1540	42	157	17.0
DEC					JUN				
18...	1350	70	167	5.0	11...	1320	19	186	19.0
FEB 1985					JUL				
05...	1400	22	175	0.0	22...	1600	14	200	26.0
MAR					SEP				
19...	1315	138	185	2.0	11...	1115	21	190	15.0

BARNSTABLE COUNTY

413956070164301. Barnstable well A1W 230.
LOCATION.--Lat 41°39'56", long 70°16'43", Hydrologic Unit 01090002, 50 ft west of Mary Dunn Road at Hyannis Airport and 0.3 mi north of intersection of Willow Street and State Highway 28 in Barnstable.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 35.8 ft, screened 32.8 to 35.8 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 43.23 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--January 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.05 ft below land-surface datum, May 12, 1973; lowest measured, 26.22 ft below land-surface datum, Oct. 25, 1966.

WATER LEVELS 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	23.00	JAN 25	24.14	APR 25	24.25	JUL 25	24.74
NOV 28	23.50	FEB 20	24.30	MAY 22	24.28	AUG 21	24.83
DEC 24	23.79	MAR 20	24.07	JUN 26	24.42	SEP 23	23.55

414154070165001. Barnstable well A1W 247.
LOCATION.--Lat 41°41'54", long 70°16'50", Hydrologic Unit 01090002, 30 ft east of Mary Dunn Road and 0.2 mi south of State Highway 6A in Barnstable.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 52 ft, screened 49 to 52 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 44.52 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--November 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.97 ft below land-surface datum, May 25, 1973; lowest measured, 28.64 ft below land-surface datum, Oct. 25, 1966.

WATER LEVELS 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	22.92	JAN 25	23.98	APR 25	24.29	JUL 25	24.86
NOV 28	23.32	FEB 20	24.20	MAY 23	24.44	AUG 21	25.14
DEC 24	23.68	MAR 20	24.18	JUN 26	24.57	SEP 24	24.45

414129070361401. Bourne well BHW 198.
LOCATION.--Lat 41°41'29", long 70°36'14", Hydrologic Unit 01090002, 50 ft west of County Road and 0.3 mi south of Pocasset Road in Bourne.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 50 ft, screened 47 to 50 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 55.56 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 5.0 ft above land-surface datum.
PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.31 ft below land-surface datum, Apr. 26, 1984; lowest measured, 36.17 ft below land-surface datum, Oct. 25, 1966.

WATER LEVELS 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	33.11	JAN 25	33.38	APR 25	33.63	JUL 24	33.94
NOV 26	33.17	FEB 21	33.45	MAY 23	33.76	AUG 20	33.98
DEC 27	33.44	MAR 22	33.57	JUN 25	33.80	SEP 23	31.46

BARNSTABLE COUNTY--Continued

414518070020301. Brewster well BMW 21.
LOCATION.--Lat 41°45'18", long 70°02'03", Hydrologic Unit 01090002, about 50 ft north of Nook Road, 0.1 mi south of Cliff Pond, 0.3 mi east of Silas Road, and at Nickerson State Park in Brewster.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.5 in, depth 25 ft, screened 22 to 25 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 36.97 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.40 ft above land-surface datum.
PERIOD OF RECORD.--October 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.90 ft below land-surface datum, Apr. 25, 1974; lowest measured, 13.34 ft below land-surface datum, Oct. 25, 1966.

WATER LEVELS 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	8.11	JAN 24	8.99	APR 23	9.54	JUL 23	10.07
NOV 27	8.50	FEB 22	9.09	MAY 22	9.66	AUG 20	10.23
DEC 19	8.67	MAR 21	9.29	JUN 24	9.82	SEP 24	10.26

414630070014901. Brewster well BMW 22.
LOCATION.--Lat 41°46'30", long 70°01'49", Hydrologic Unit 01090002, 50 ft east of entrance to Nickerson State Park and 50 ft south of State Highway 6A in Brewster.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 52 ft, screened 49 to 52 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 50.45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.50 ft below land-surface datum, Apr. 25, 1984; lowest measured, 33.60 ft below land-surface datum, Jan. 31, 1966.

WATER LEVELS 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	29.74	JAN 24	30.73	APR 23	30.95	JUL 23	31.21
NOV 27	30.18	FEB 22	30.98	MAY 22	31.03	AUG 20	31.35
DEC 19	30.43	MAR 21	31.00	JUN 24	31.06	SEP 24	30.78

414100070011101. Chatham well CGW 138.
LOCATION.--Lat 41°41'00", long 70°01'11", Hydrologic Unit 01090002, 50 ft east of State Highway 137 and 300 ft north of State Highway 28 in Chatham.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 44 ft, screened 41 to 44 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 35.28 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.77 ft above land-surface datum; prior to June 1980, 3.80 ft above land-surface datum.
PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.94 ft below land-surface datum, Apr. 25, 1983; lowest measured, 26.22 ft below land-surface datum, Jan. 31, 1966.

WATER LEVELS 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	23.42	JAN 23	24.28	APR 24	24.34	JUL 25	24.54
NOV 28	23.81	FEB 20	24.44	MAY 22	24.45	AUG 21	24.73
DEC 20	24.03	MAR 20	24.30	JUN 24	24.25	SEP 24	24.43

BARNSTABLE COUNTY--Continued

414418070241601. Sandwich well SDW 252.
LOCATION.--Lat 41°44'18", long 70°24'16", Hydrologic Unit 01090002, 0.5 mi north of State Highway 6A and 15 ft east of Private Road in Sandwich.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 57 ft, screened 55 to 57 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 53.47 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.88 ft below land-surface datum, Apr. 25, 1983; lowest measured, 48.23 ft below land-surface datum, Oct. 25, 1966.

WATER LEVELS 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	47.17	JAN 25	47.63	APR 25	47.80	JUL 24	47.66
NOV 26	47.33	FEB 21	47.70	MAY 23	47.67	AUG 21	47.77
DEC 24	47.59	MAR 22	47.70	JUN 26	47.64	SEP 23	47.48

414124070265901. Sandwich well SDW 253.
LOCATION.--Lat 41°41'24", long 70°26'59", Hydrologic Unit 01090002, 800 ft west of Stowe Road and 50 ft south of Farmersville Road in Sandwich.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 70 ft, screened 67 to 70 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 111.20 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.78 ft below land-surface datum, July 30, 1973; lowest measured, 55.05 ft below land-surface datum, Feb. 28, 1967.

WATER LEVELS 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	47.83	JAN 25	48.79	APR 25	49.58	JUL 24	50.33
NOV 26	48.18	FEB 21	49.09	MAY 23	49.73	AUG 21	50.57
DEC 27	48.48	MAR 22	49.26	JUN 25	49.99	SEP 23	50.11

420239070062001. Truro well TSW 1.
LOCATION.--Lat 42°02'39", long 70°06'20", Hydrologic Unit 01090002, near old pumping station about 200 ft north of State Highway 6A and 1.2 mi northwest of North Truro.
Owner: Town of Provincetown.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in, depth 68 ft, cased to 68 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 16.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.
REMARKS.--Water levels affected by pumping, barometric pressure, and tide.
PERIOD OF RECORD.--August 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.28 ft below land-surface datum, Mar. 23, 1983; lowest measured, 12.1 ft below land-surface datum, Sept. 11, 1954.

WATER LEVELS 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	10.67	JAN 24	10.87	APR 23	11.39	JUL 23	10.89
NOV 27	10.64	FEB 22	11.21	MAY 24	11.02	AUG 22	10.90
DEC 19	10.89	MAR 21	11.05	JUN 24	11.12	SEP 25	10.60

BARNSTABLE COUNTY--Continued

420206070045901. Truro well TSW 89.
LOCATION.--Lat 42°02'06", long 70°04'59", Hydrologic Unit 01090002, 300 ft west of U.S. Highway 6 and 50 ft north of Highland Road in Truro.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 27.7 ft, screened 24.7 to 27.7 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 16.60 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.7 ft above land-surface datum.
PERIOD OF RECORD.--September 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.20 ft below land-surface datum, Apr. 25, 1983: lowest measured, 12.96 ft below land-surface datum, Sept. 28, 1965.

WATER LEVELS 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	12.25	JAN 24	12.24	APR 23	12.50	JUL 23	12.44
NOV 27	12.17	FEB 22	12.22	MAY 20	12.41	AUG 22	12.52
DEC 19	12.31	MAR 21	12.32	JUN 24	12.39	SEP 25	11.96

415353069585401. Wellfleet well WNW 17.
LOCATION.--Lat 41°53'53", long 69°58'54", Hydrologic Unit 01090002, about 150 ft east of old pumping station and 45 ft west of road to the public beach at Cape Cod National Seashore in Wellfleet.
Owner: Cape Cod National Seashore.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in, depth 42 ft, screen information not available.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 19.10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.13 ft above land-surface datum.
PERIOD OF RECORD.--November 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.27 ft below land-surface datum, June 27, 1967; lowest measured, 12.75 ft below land-surface datum, Jan. 31, 1967.

WATER LEVELS 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	9.60	JAN 24	10.52	MAY 24	10.77	SEP 24	9.17
NOV 27	9.96	FEB 22	10.66	JUN 24	10.87		
DEC 19	10.17	MAR 21	10.67	JUL 23	11.08		
27	10.54	APR 23	10.66	AUG 22	11.05		

BERKSHIRE COUNTY

423503073075401. Cheshire well CJW 2.
LOCATION.--Lat 42°35'03", long 73°07'54", Hydrologic Unit 02020003, at intersection of Wells and Jenks Roads 2.3 mi northeast of Cheshire.
Owner: John Jayko.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 22 ft, cased with stone to 22 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 1,210 ft. Measuring point: Inside rim of concrete well top, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--October 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.09 ft below land-surface datum, Jan. 19, 1952; lowest measured, 14.03 ft below land-surface datum, Nov. 20, 1964.

WATER LEVELS 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 21	10.63	JAN 24	6.88	APR 22	3.74	JUL 21	12.00
NOV 23	8.56	FEB 21	8.35	MAY 21	6.76	AUG 22	8.88
DEC 21	6.93	MAR 21	7.09	JUN 21	7.99	SEP 23	8.92

BERKSHIRE COUNTY--Continued

421316073212801. Great Barrington well GMW 2.
LOCATION.--Lat 42°13'16", long 73°21'28", Hydrologic Unit 01100005, 30 ft west of State Highway 41 and 1.5 mi north of intersection of State Highway 41 and U.S. Highway 7 in Great Barrington.
Owner: Mr. Jacobson.
AQUIFER.--Glacial outwash of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in, depth 15 ft, cased with stone to 15 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 732 ft. Measuring point: Top of stone curbing, east side of well 0.33 ft above land-surface datum. Prior to July 25, 1978, measured at land-surface datum.
REMARKS.--Water level affected by stream.
PERIOD OF RECORD.--June 1951 to current year. Continuous graphic recorder January 1968 to August 1982.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.99 ft below land-surface datum, Apr. 21, 1983; lowest measured, 14.97 ft below land-surface datum, Nov. 20, 1964.

WATER LEVELS 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	12.54	JAN 24	12.50	APR 22	11.50	JUL 21	12.88
NOV 23	12.58	FEB 21	12.08	MAY 21	12.46	AUG 22	12.99
DEC 21	12.46	MAR 21	9.92	JUN 21	12.66	SEP 23	12.53

420912073043001. Otis well OTW 7.
LOCATION.--Lat 42° 2", long 73°04'30", Hydrologic Unit 01080207, about 400 ft south of Hawley Road and 15 ft west of State Highway 8 in Otis.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 17.5 ft, screened 15.5 to 17.5 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 1,145 ft. Measuring point: Top of casing, 3.5 ft above land-surface datum.
REMARKS.--Water levels affected by Minor Brook and Farmington River.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.55 ft below land-surface datum, Apr. 21, 1983; lowest measured, 10.16 ft below land-surface datum, Sept. 21, 1983.

WATER LEVELS 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 21	9.94	JAN 24	8.68	APR 22	8.55	JUL 21	9.41
NOV 23	9.24	FEB 21	8.88	MAY 21	8.74	AUG 22	9.05
DEC 21	8.73	MAR 21	7.87	JUN 21	8.88	SEP 23	8.87

422745073112001. Pittsfield well PTW 51.
LOCATION.--Lat 42°27'45", long 73°11'20", Hydrologic Unit 01100005, 30 ft east of Hubbard Ave. and about 100 ft north of Barton Brook in Pittsfield.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 ft, depth 31.5 ft, screened 29.5 to 31.5 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 1,050 ft. Measuring point: Top of casing, 2.5 ft above land-surface datum.
PERIOD OF RECORD.--August 1963 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.30 ft below land-surface datum, Apr. 25, 1969; lowest measured, 27.57 ft below land-surface datum, Dec. 22, 1964.

WATER LEVELS 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 19	21.59	DEC 21	17.11	APR 22	15.30	JUL 21	19.35
22	21.86	JAN 24	15.86	29	15.46	22	19.45
NOV 06	22.42	FEB 04	16.56	MAY 21	15.96	AUG 22	20.98
15	22.02	21	16.18	JUN 10	16.96	SEP 10	21.37
23	21.50	MAR 18	14.87	21	17.65	23	21.65
DEC 18	17.62	21	14.84	JUL 11	18.62		

BERKSHIRE COUNTY--Continued

420351073193601. Sheffield well SJW 59.
LOCATION.--Lat 42°03'51", long 73°19'36", Hydrologic Unit 01100005, about 200 ft east of U.S. Highway 7 and 30 ft north of Hewins Road in Sheffield.
Owner: U.S. Geological Survey.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 ft, depth 24 ft, screened 22 to 24 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 680 ft. Measuring point: Top of casing, 3.70 ft above land-surface datum.
PERIOD OF RECORD.--November 1963 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.19 ft below land-surface datum, Mar. 28, 1978; lowest measured, 19.69 ft below land-surface datum, Jan. 25, 1966.

WATER LEVELS 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 21	12.31	JAN 24	14.04	APR 22	14.70	AUG 22	15.58
NOV 23	12.78	FEB 21	14.07	MAY 21	14.96	SEP 23	15.80
DEC 21	13.30	MAR 21	14.49	JUL 21	15.46		

BRISTOL COUNTY

415447071155301. Attleboro well ATW 83.
LOCATION.--Lat 41°54'47", long 71°15'53", Hydrologic Unit 01090004, about 150 ft north of parking lot and 200 ft west of dirt road at Bristol County Nursing Home in Attleboro.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 20.6 ft, screened 18.6 to 20.6 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 145 ft. Measuring point: Top of casing, 2.5 ft above land-surface datum.
PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.98 ft below land-surface datum, Jan. 27, 1978; lowest measured, 5.23 ft below land-surface datum, Aug. 26, 1964.

WATER LEVELS 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	4.15	JAN 22	4.29	APR 22	5.22	JUL 23	5.00
NOV 20	4.04	FEB 21	3.94	MAY 21	4.19	AUG 27	4.82
DEC 26	3.91	MAR 21	3.92	JUN 25	4.34	SEP 26	4.50

414705071045301. Freetown well F3W 23.
LOCATION.--Lat 41°47'05", long 71°04'53", Hydrologic Unit 01090004, about 300 ft west of State Highway 24 and 200 ft north of State Highway 79 in Freetown.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 42 ft, screened 40 to 42 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 38 ft. Measuring point: Top of casing, 2.0 ft above land-surface datum.
REMARKS.--Water level affected by tide.
PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.72 ft below land-surface datum, Apr. 22, 1983; lowest measured, 15.70 ft below land-surface datum, Jan. 29, 1966.

WATER LEVELS 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	13.03	JAN 23	14.04	APR 22	14.49	JUL 23	14.15
NOV 20	13.21	FEB 21	14.16	MAY 21	14.28	AUG 27	13.74
DEC 27	13.74	MAR 21	14.14	JUN 25	13.21	SEP 26	13.40

414025070572801. New Bedford well NGW 116.
LOCATION.--Lat 41°40'25", long 70°57'28", Hydrologic Unit 01090002, New Bedford Municipal Airport, 30 ft east of control tower building in New Bedford.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 27.3 ft, screened 25.3 to 27.3 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 65 ft. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.31 ft below land-surface datum, Mar. 26, 1969; lowest measured, 5.20 ft below land-surface datum, July 24, 1964.

WATER LEVELS 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	4.29	JAN 23	4.45	APR 23	4.38	JUL 22	4.25
NOV 20	4.18	FEB 21	4.09	MAY 21	4.21	AUG 26	2.87
DEC 27	3.82	MAR 21	3.98	JUN 25	4.30	SEP 26	4.16

415812071111101. Norton well N4W 37.
LOCATION.--Lat 41°58'12", long 71°11'11", Hydrologic Unit 01090004, at Wheaton College, 250 ft northeast of observatory in Norton.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 19.4 ft, screened 17.4 to 19.4 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 105 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.35 ft below land-surface datum, Dec. 29, 1969; lowest measured, 11.24 ft below land-surface datum, Oct. 23, 1980.

WATER LEVELS 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	9.38	JAN 22	7.87	APR 22	7.91	JUL 23	9.59
NOV 20	8.30	FEB 22	6.85	MAY 21	8.11	AUG 27	9.95
DEC 26	6.95	MAR 22	6.45	JUN 25	8.75	SEP 26	8.82

414714071175901. Seekonk well SHW 275.
LOCATION.--Lat 41°47'14", long 71°17'59", Hydrologic Unit 01090004, middle of median strip of Interstate Highway 195 and 1.1 mi west of Palmer River in Seekonk.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 14.4 ft, screened 12.4 to 14.4 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 21 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.18 ft below land-surface datum, Mar. 22, 1984: lowest measured, 8.02 ft below land-surface datum, Sept. 26, 1980.

WATER LEVELS 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	6.66	JAN 23	6.32	APR 22	6.22	JUL 23	6.36
NOV 20	6.49	FEB 21	5.85	MAY 21	5.92	AUG 27	6.10
DEC 27	5.85	MAR 21	5.80	JUN 25	5.94	SEP 26	6.46

BRISTOL COUNTY--Continued

414420071084401. Somerset well SPW 161.
LOCATION.--Lat 41°44'20", long 71°08'44", Hydrologic Unit 01090004, 110 ft east of Riverside Avenue and 335 ft south of the Johnson Street and Riverside Avenue intersection in Somerset.
Owner: Montaup Electric.
AQUIFER.--Sandstone interbedded with shale and conglomerate of Carboniferous age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 3 in, depth 1,500 ft, cased to 26 ft, open hole.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.---Elevation of land-surface datum is 40 ft. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--March 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.87 ft below land-surface datum, Jan. 29, 1979; lowest measured, 22.09 ft below land-surface datum, Oct. 23, 1980.

WATER LEVELS 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	18.93	JAN 23	16.95	APR 22	15.80	JUL 23	16.60
NOV 20	18.25	FEB 21	16.85	MAY 21	15.89	AUG 27	16.46
DEC 27	17.80	MAR 21	15.35	JUN 25	15.90	SEP 26	14.68

415454071061801. Taunton well TAW 258.
LOCATION.--Lat 41°54'54", long 71°06'18", Hydrologic Unit 01090004, 420 ft northwest of Danforth Street and 520 ft southwest of Chester Street in Taunton.
Owner: Joseph Mozzone.
AQUIFER.--Sandstone interbedded with shale and conglomerate of Carboniferous age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 3.0 in, depth 1,006.0 ft, cased to 10.0 ft, open hole.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 60 ft. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--November 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.10 ft below land-surface datum, Jan. 27, 1978; lowest measured, 15.85 ft below land-surface datum, Sept. 26, 1981.

WATER LEVELS 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	14.30	JAN 22	13.44	APR 22	13.00	JUL 23	14.29
NOV 20	13.84	FEB 21	12.88	MAY 21	12.76	AUG 27	14.53
DEC 26	13.32	MAR 21	12.47	JUN 25	13.58	SEP 26	14.42

415457071060101. Taunton well TAW 337.
LOCATION.--Lat 41°54'57", long 71°06'01", Hydrologic Unit 01090004, Taunton State Hospital, about 200 ft west of Mill River and about 300 ft east of Danforth Street in Taunton.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 20 ft, screened 18 to 20 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 50 ft. Measuring point: Top of casing, 2.5 ft above land-surface datum.
REMARKS.--Water levels affected by Mill River.
PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.96 ft below land-surface datum, Dec. 29, 1969; lowest measured, 10.85 ft below land-surface datum, Sept. 27, 1984.

WATER LEVELS 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	9.73	JAN 22	9.55	APR 22	9.42	JUL 23	9.91
NOV 20	9.55	FEB 21	9.10	MAY 21	9.27	AUG 27	9.86
DEC 26	9.33	MAR 21	8.88	JUN 25	9.60	SEP 26	9.84

DUKES COUNTY

412346070353403. Edgartown well ENW 52.
LOCATION.--Lat 41°23'46", long 70°35'34", Hydrologic Unit 01090002, 0.5 mi west of Airport Road and 0.6 mi north of West Tisbury Road in Edgartown.
Owner: Martha's Vineyard State Forest.
AQUIFER.--Glacial sand, gravel and cobbles of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in, depth 64.02 ft, screened 61.02 to 64.02 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 34 ft. Measuring point: Top of casing, 0.02 ft below land-surface datum.
PERIOD OF RECORD.--December 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.17 ft below land-surface datum, July 28, 1979; lowest measured, 20.51 ft below land-surface datum, Feb. 26, 1981.

WATER LEVELS 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	15.71	JAN 28	17.76	MAY 27	18.80	AUG 29	18.70
NOV 25	16.44	MAR 26	18.68	JUN 30	18.50	SEP 26	18.42
DEC 24	17.04	APR 24	18.64	JUL 28	18.40		

ESSEX COUNTY

423734071080901. Andover well AJW 26.
LOCATION.--Lat 42°37'34", long 71°08'09", Hydrologic Unit 01070002, 90 ft north of Ballardvale Road and 30 ft west of Sunset Rock Road in Andover.
Owner: Harry K. Jenkins.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 25 in, depth 15 ft, cased with stone to 15 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 189 ft. Measuring point: Upper edge of brick lip in corner of opening, 2.5 ft above land-surface datum.
PERIOD OF RECORD.--June 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.47 ft below land-surface datum, Mar. 26, 1969; lowest measured, 13.44 ft below land-surface datum, Nov. 21, 1965.

WATER LEVELS 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	13.00	JAN 22	12.37	APR 22	11.44	JUL 23	12.61
NOV 20	12.85	FEB 21	12.38	MAY 22	12.25	AUG 27	12.71
DEC 26	12.53	MAR 21	9.90	JUN 24	12.56	SEP 29	12.64

423641071102501. Andover well AJW 462.
LOCATION.--Lat 42°36'41", long 71°10'25", Hydrologic Unit 01070002, about 1,200 ft south of Shawsheen River, and 30 ft west of Interstate Highway 93 in Andover.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 32.5 ft, screened 30.5 to 32.5 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 110 ft. Measuring point: Top of casing, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--November 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.72 ft below land-surface datum, June 20, 1984; lowest measured, 15.80 ft below land-surface datum, Oct. 23, 1980.

WATER LEVELS 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	13.99	JAN 22	14.25	APR 22	14.08	JUL 23	14.98
NOV 20	14.10	FEB 21	14.77	MAY 22	14.72	AUG 27	14.76
DEC 26	14.26	MAR 21	13.40	JUN 24	14.70	SEP 29	14.26

ESSEX COUNTY--Continued

424322070592401. Georgetown well GCW 168.
LOCATION.--Lat 42°43'22", long 70°59'24", Hydrologic Unit 01090001, 18 ft south of State Highway 133 and 25 ft east of Winter Street at Murca Park in Georgetown.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial outwash of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 21 ft, screened 19 to 21 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 80 ft. Measuring point: Top of casing, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.42 ft below land-surface datum, Mar. 27, 1969; lowest measured, 6.65 ft below land-surface datum, Sept. 22, 1965.

WATER LEVELS 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	5.39	JAN 22	4.98	APR 22	4.76	JUL 23	5.79
NOV 20	4.90	FEB 21	4.70	MAY 22	4.87	AUG 27	5.80
DEC 26	.4.38	MAR 21	4.28	JUN 24	5.30	SEP 29	4.93

424841071004101. Haverhill well HLW 23.
LOCATION.--Lat 42°48'41", long 71°00'41", Hydrologic Unit 01070002, about 50 ft north of Amesbury Line Road and 0.9 mi south of State Highway 110 in Haverhill.
Owner: Mrs. Benjamin Hamm.
AQUIFER.--Glacial sand of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 12 in, depth 15.1 ft, cased with tile to 15.1 ft, open end.
INSTRUMENTATION.--Continuous graphic recorder October 1960 to September 1982, digital recorder (60-minute punch) October 1984 to current year.
DATUM.--Elevation of land-surface datum is 105 ft. Measuring point: Top of hole in base of wooden recorder shelter, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--October 1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.80 ft below land-surface datum, Mar. 23, 1983; lowest recorded, 15.02 ft below land-surface datum, Feb. 2, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	14.11	13.99	---	13.49	13.25	12.72	12.77	12.99	13.34	13.70	14.05
2	---	14.12	14.00	---	13.50	13.26	12.73	12.78	13.00	13.35	13.64	14.03
3	---	14.13	14.01	---	13.52	13.28	12.73	12.79	13.00	13.36	13.62	14.03
4	---	14.14	14.02	---	13.53	13.30	12.74	12.79	13.01	13.38	13.62	14.05
5	---	14.15	14.02	---	13.54	13.30	12.75	12.78	13.02	13.39	13.64	14.07
6	---	14.16	14.03	---	13.55	13.32	12.74	12.78	13.02	13.41	13.67	14.07
7	---	14.16	14.01	---	13.56	13.34	12.75	12.78	13.03	13.42	13.70	13.93
8	---	14.16	13.98	---	13.58	13.34	12.76	12.79	13.04	13.44	13.72	13.77
9	---	14.17	13.96	---	13.59	13.35	12.76	12.80	13.05	13.46	13.73	13.65
10	---	14.18	13.95	13.26	13.60	13.33	12.76	12.80	13.06	13.47	13.75	13.58
11	---	14.19	13.93	13.26	13.61	13.30	12.75	12.81	13.09	13.48	13.77	13.52
12	---	14.16	13.92	13.26	13.62	13.25	12.76	12.82	13.11	13.49	13.79	13.49
13	---	14.05	13.90	13.26	13.56	13.19	12.76	12.82	13.12	13.50	13.82	13.47
14	---	13.97	13.88	13.26	13.40	13.07	12.76	12.83	13.13	13.52	13.84	13.45
15	---	13.91	13.86	13.27	13.29	12.94	12.74	12.85	13.14	13.53	13.86	13.45
16	---	13.88	13.83	13.30	13.24	12.85	12.73	12.86	13.15	13.53	13.88	13.44
17	13.94	13.86	13.80	13.30	13.21	12.77	12.73	12.87	13.17	13.53	13.90	13.44
18	13.96	13.85	13.78	13.31	13.20	12.73	12.74	12.87	13.17	13.54	13.92	13.44
19	13.97	13.84	13.76	13.32	13.19	12.70	12.73	12.88	13.19	13.56	13.94	13.46
20	13.99	13.84	13.73	13.33	13.19	12.68	12.73	12.90	13.20	13.57	13.96	13.47
21	14.01	13.85	13.72	13.34	13.20	12.67	12.73	12.91	13.21	13.59	13.98	13.48
22	14.02	13.86	13.70	13.36	13.20	12.66	12.73	12.91	13.23	13.60	14.00	13.50
23	14.03	13.87	13.67	13.37	13.20	12.66	12.73	12.92	13.24	13.62	14.02	13.51
24	14.02	13.88	13.63	13.39	13.20	12.66	12.73	12.92	13.25	13.63	14.04	13.53
25	14.03	13.89	13.58	13.40	13.22	12.66	12.73	12.93	13.27	13.65	14.05	13.54
26	14.04	---	13.52	13.42	13.23	12.67	12.73	12.94	13.28	13.67	14.07	13.52
27	14.05	---	---	13.43	13.23	12.68	12.74	12.95	13.29	13.68	14.08	13.51
28	14.06	13.95	---	13.44	13.24	12.68	12.74	12.96	13.31	13.68	14.09	13.51
29	14.08	13.96	---	13.46	---	12.69	12.75	12.97	13.31	13.68	14.10	13.52
30	14.09	13.98	---	13.47	---	12.70	12.76	12.98	13.33	13.70	14.11	13.53
31	14.10	---	---	13.48	---	12.72	---	12.99	---	13.71	14.11	---
MEAN	---	---	---	---	13.38	12.97	12.74	12.86	13.15	13.53	13.87	13.63
HIGH	---	---	---	---	13.62	13.35	12.76	12.99	13.33	13.71	14.11	14.07
LOW	---	---	---	---	13.19	12.66	12.72	12.77	12.99	13.34	13.62	13.44

WTR YR 1985 MAX 12.66 MAR 22-26 MIN 14.19 NOV 11, 12

ESSEX COUNTY--Continued

424520070562401. Newbury well NIW 27.
LOCATION.--Lat 42°45'20", long 70°56'24", Hydrologic Unit 01090001, about 300 ft east of Interstate Highway 95 and 100 ft north of Central Street in Newbury.
Owner: Mrs. George Brown.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 31 in, depth 19.8 ft, cased with tile to 19.8 ft, open end.
INSTRUMENTATION.--Continuous graphic recorder January 1967 to September 1982, digital recorder (60-minute punch) October 1984 to current year.
DATUM.--Elevation of land-surface datum is 55 ft. Measuring point: Top of hole in base of wooden recorder shelter, 1.95 ft above land-surface datum. Prior to October 1978, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--February 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.15 ft below land-surface datum, Mar. 25, 1969; lowest, 12.68 ft below land-surface datum, Nov. 24, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.61	9.14	6.85	8.24	7.74	6.29	7.31	8.04	8.86	9.78	9.75
2	---	10.60	9.17	6.85	8.27	7.69	6.28	7.38	8.07	8.88	9.61	9.64
3	---	10.60	9.20	6.85	8.32	7.70	6.29	7.42	8.12	8.90	9.57	9.61
4	---	10.61	9.17	6.80	8.36	7.73	6.31	7.38	8.17	8.93	9.57	9.60
5	---	10.60	9.14	6.72	8.41	7.69	6.34	7.37	8.22	8.98	9.60	9.60
6	---	10.56	9.05	6.72	8.43	7.64	6.35	7.38	8.25	9.02	9.64	9.39
7	---	10.53	8.66	6.74	8.46	7.63	6.38	7.35	8.27	9.06	9.67	8.19
8	---	10.52	8.37	6.74	8.48	7.54	6.42	7.31	8.29	9.10	9.70	7.11
9	---	10.51	8.23	6.80	8.53	7.29	6.43	7.33	8.31	9.14	9.74	6.78
10	---	10.50	8.14	6.88	8.60	7.05	6.45	7.31	8.35	9.19	9.78	6.73
11	---	10.48	8.05	6.92	8.68	6.88	6.46	7.30	8.40	9.23	9.82	6.75
12	---	9.97	7.97	6.95	8.72	6.67	6.49	7.34	8.44	9.27	9.86	6.82
13	---	9.19	7.90	6.99	8.39	6.19	6.53	7.35	8.46	9.32	9.90	6.90
14	---	8.70	7.87	7.05	7.92	5.71	6.57	7.37	8.48	9.35	9.94	6.94
15	---	8.54	7.87	7.09	7.77	5.51	6.58	7.44	8.52	9.39	9.97	6.96
16	---	8.52	7.84	7.17	7.74	5.49	6.58	7.47	8.56	9.42	10.00	7.00
17	10.70	8.57	7.80	7.23	7.77	5.51	6.63	7.49	8.57	9.45	10.04	7.04
18	10.72	8.65	7.77	7.29	7.81	5.55	6.69	7.51	8.58	9.49	10.08	7.10
19	10.74	8.70	7.76	7.34	7.84	5.63	6.72	7.57	8.58	9.53	10.11	7.16
20	10.75	8.77	7.75	7.38	7.87	5.67	6.78	7.64	8.61	9.57	10.14	7.22
21	10.78	8.83	7.74	7.44	7.91	5.75	6.83	7.69	8.65	9.61	10.16	7.27
22	10.80	8.88	7.60	7.54	7.92	5.82	6.88	7.72	8.71	9.65	10.18	7.36
23	10.79	8.92	7.25	7.63	7.92	5.84	6.93	7.75	8.75	9.69	10.22	7.43
24	10.73	8.94	7.02	7.71	7.90	5.88	6.97	7.78	8.78	9.75	10.25	7.46
25	10.70	8.99	6.87	7.78	7.86	5.93	6.99	7.81	8.81	9.80	10.29	7.39
26	10.68	9.03	6.79	7.84	7.86	6.00	7.02	7.85	8.84	9.84	10.31	7.37
27	10.67	9.07	6.77	7.92	7.80	6.04	7.08	7.89	8.88	9.82	10.28	7.38
28	10.65	9.12	6.74	7.98	7.77	6.07	7.14	7.94	8.89	9.80	10.27	7.35
29	10.63	9.13	6.71	8.05	---	6.11	7.20	7.97	8.86	9.82	10.28	7.37
30	10.62	9.13	6.74	8.12	---	6.19	7.26	8.00	8.85	9.84	10.30	7.37
31	10.61	---	6.81	8.19	---	6.27	---	8.03	---	9.87	10.06	---
MEAN	---	9.53	7.87	7.28	8.13	6.46	6.66	7.56	8.51	9.41	9.97	7.67
LOW	---	10.61	9.20	8.19	8.72	7.74	7.26	8.03	8.89	9.87	10.31	9.75
HIGH	---	8.52	6.71	6.72	7.74	5.49	6.28	7.30	8.04	8.86	9.57	6.73

WTR YR 1985 MAX 5.48 MAR 15, 16 MIN 10.81 OCT 22

425103070513401. Salisbury well SBW 9.
LOCATION.--Lat 42°51'03", long 70°51'34", Hydrologic Unit 01070002, at intersection of Gerrish and Seabrook Roads 0.6 mi north of Salisbury.
Owner: Eugene G. Folsum.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 11 ft, cased with tile to 11 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 35 ft. Measuring point: Top inside lip of tile casing, 1.60 ft above land-surface datum.
PERIOD OF RECORD.--August 1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.90 ft below land-surface datum, Mar. 23, 1983; lowest measured, 8.37 ft below land-surface datum, Sept. 22, 1983.

WATER LEVELS 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	6.31	JAN 22	5.34	APR 22	5.15	JUL 23	6.52
NOV 20	5.10	FEB 21	4.77	MAY 22	5.16	AUG 27	6.90
DEC 26	4.15	MAR 21	4.42	JUN 24	6.34	SEP 29	5.52

ESSEX COUNTY--Continued

423845070542501. Topsfield well TQW 1.
LOCATION.--Lat 42°38'45", long 70°54'25", Hydrologic Unit 01090001, 0.7 mi south of Ipswich Road and 120 ft west of Hamilton Road in Topsfield.
Owner: Mr. Sullivan.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 22.0 ft, cased with stone to 22.0 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 130 ft. Measuring point: Top edge of steel rim in concrete cover, 0.6 ft above land-surface datum.
PERIOD OF RECORD.--February 1936 to October 1947, April 1957 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.22 ft below land-surface datum, Mar. 23, 1983; lowest measured, 17.52 ft below land-surface datum, Jan. 27, 1966.

WATER LEVELS 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	14.90	JAN 22	13.42	APR 22	10.10	JUL 23	12.70
NOV 20	15.31	FEB 21	12.52	MAY 22	10.92	AUG 27	13.94
DEC 26	14.80	MAR 21	8.29	JUN 24	11.52	SEP 29	13.89

423505070491702. Wenham well WPW 76.
LOCATION.--Lat 42°35'05", long 70°49'17", Hydrologic Unit 01090001, 45 ft west of State Highway 128 and 120 ft of Grapevine Road in Wenham.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 22.0 ft, screened 20.0 to 22.0 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 60 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.39 ft below land-surface datum, Jan. 26, 1978; lowest measured, 4.36 ft below land-surface datum, Sept. 28, 1971.

WATER LEVELS 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	2.77	JAN 22	2.32	APR 22	1.50	JUL 23	3.00
NOV 20	2.86	FEB 21	2.30	MAY 22	2.22	AUG 27	3.10
DEC 26	2.04	MAR 21	1.51	JUN 24	2.68	SEP 29	2.59

FRANKLIN COUNTY

423809072435601. Colrain well CSW 8.
LOCATION.--Lat 42°38'09", long 72°43'56", Hydrologic Unit 01080203, 15 ft east of State Highway 112 and 100 ft north of North River Bridge in Colrain.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 32.3 ft, screened 30.3 to 32.3 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 460 ft. Measuring point: Top of casing, 1.5 ft above land-surface datum.
REMARKS.--Water levels affected by North River.
PERIOD OF RECORD.--December 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.62 ft below land-surface datum, Apr. 24, 1969; lowest measured, 23.48 ft below land-surface datum, Jan. 31, 1965.

WATER LEVELS 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 21	21.62	JAN 24	21.95	APR 22	19.09	JUL 21	20.98
NOV 23	22.06	FEB 21	21.75	MAY 21	19.47	AUG 22	21.63
DEC 21	22.24	MAR 21	20.60	JUN 21	20.10	SEP 23	22.14

423310072355801. Deerfield well DFW 44.
LOCATION.--Lat 42°33'10", long 72°35'58", Hydrologic Unit 01080203, 1.2 mi south of Deerfield River Bridge and 15 ft east of U.S. Highway 5 in Deerfield.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 27.6 ft, screened 25.6 to 27.6 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 140 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--December 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.42 ft below land-surface datum, May 29, 1979; lowest measured, 6.16 ft below land-surface datum, Sept. 25, 1980.

WATER LEVELS 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	4.36	JAN 23	3.28	APR 23	2.93	JUL 22	3.81
NOV 24	3.13	FEB 22	2.74	MAY 22	2.77	AUG 23	4.35
DEC 22	2.52	MAR 22	2.58	JUN 21	3.17	SEP 22	3.59

423305072320301. Montague well M5W 5.
LOCATION.--Lat 42°33'05", long 72°32'03", Hydrologic Unit 01080201, about 15 ft west of Montague Road, 0.2 mi north of Old Northfield Road, and 1.0 mi north of Montague.
Owner: Thomas C. Kurtyka.
AQUIFER.--Glacial outwash of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in, depth 12 ft, screened 9 to 12 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 240 ft. Measuring point: Top of casing, 1.75 ft above land-surface datum.
PERIOD OF RECORD.--January 1936 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.41 ft below land-surface datum, Feb. 26, 1976; lowest measured, 8.00 ft below land-surface datum, Dec. 28, 1966.

WATER LEVELS 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
DEC 20	1.47	MAR 22	1.42	JUN 21	3.81	SEP 22	4.85
JAN 23	1.93	APR 23	1.99	JUL 22	4.64		
FEB 22	1.81	MAY 22	2.80	AUG 23	5.09		

422607072324401. Sunderland well S6W 7.
LOCATION.--Lat 42°26'07", long 72°32'44", Hydrologic Unit 01080201, about 100 ft east of State Highway 116 and 30 ft north of Russellville Brook in Sunderland.
AQUIFER.--Glacial outwash of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in, depth 54 ft, cased to 54 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 210 ft. Measuring point: Top of casing, at land-surface datum.
REMARKS.--Water level affected by pumping and nearby Russellville Brook.
PERIOD OF RECORD.--November 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.85 ft below land-surface datum, Apr. 25, 1973; lowest measured, 23.26 ft below land-surface datum, Feb. 24, 1966.

WATER LEVELS 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	15.00	JAN 23	17.85	APR 23	17.49	JUL 22	20.63
NOV 24	16.17	FEB 22	17.91	MAY 22	17.90	AUG 23	20.61
DEC 22	18.45	MAR 22	14.73	JUN 21	19.75	SEP 22	21.20

HAMPDEN COUNTY

420357072511601. Granville well GLW 5.
LOCATION.--Lat 42°03'57", long 72°51'16", Hydrologic Unit 01080206, near Granville Public School, 275 ft south of State Highway 57 and 0.2 mi west of Sodom Street in Granville.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 67.7 ft, screened 65.7 to 67.7 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 675 ft. Measuring point: Top of casing, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.06 ft below land-surface datum, June 21, 1983; lowest, 37.20 ft below land-surface datum, Jan. 24, 1966.

WATER LEVELS 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 21	32.82	JAN 24	34.40	APR 22	34.93	JUL 21	35.35
NOV 24	33.53	FEB 21	34.74	MAY 21	35.10	AUG 22	35.53
DEC 21	34.02	MAR 21	34.50	JUN 21	35.24	SEP 23	35.20

420259072581701. Granville well GLW 6.
LOCATION.--Lat 42°02'59", long 72°58'17", Hydrologic Unit 01080207, at Granville State Forest, 20 ft west of West Hartland Road and 0.9 mi north of state boundary in Granville.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 20.8 ft, screened 18.8 to 20.8 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 1,160 ft. Measuring point: Top of casing, 2.5 ft above land-surface datum.
REMARKS.--Water levels affected by Halfway Brook.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.49 ft below land-surface datum, Apr. 26, 1972; lowest measured, 8.42 ft below land-surface datum, Aug. 25, 1981.

WATER LEVELS 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 21	8.37	JAN 24	6.72	APR 22	5.16	JUL 21	7.10
NOV 24	6.61	FEB 21	5.97	MAY 21	6.42	AUG 22	7.60
DEC 21	5.88	MAR 21	4.55	JUN 21	6.59	SEP 23	8.06

420646072420101. Westfield well WVW 62.
LOCATION.--Lat 42°06'46", long 72°42'01", Hydrologic Unit 01080206, at Western Massachusetts Hospital about 200 ft east of East Mountain Road and 0.4 mi north of U.S. Highway 20 in Westfield.
Owner: Commonwealth of Massachusetts.
AQUIFER.--Glacial outwash of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in, depth 25 ft, casing information not available.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 210 ft. Measuring point: Top of casing, 3.5 ft above land-surface datum.
REMARKS.--Water level affected by pumping.
PERIOD OF RECORD.--August 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.70 ft below land-surface datum, Oct. 29, 1975; lowest measured, well dry Sept. 22, 1983, Nov. 21, 1983, Mar. 21, 1985.

WATER LEVELS 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 21	10.60	JAN 24	11.75	APR 22	11.21	JUL 21	11.62
NOV 24	12.19	FEB 21	11.82	MAY 21	11.11	AUG 22	11.96
DEC 21	11.44	MAR 21	12.64	JUN 21	DRY	SEP 22	11.54

HAMPDEN COUNTY--Continued

420905072254001. Wilbraham well XJW 55.
LOCATION.--Lat 42°09'05", long 72°25'40", Hydrologic Unit 01080204, 45 ft south of U.S. Highway 20 and 0.1 mi west of North Main Street in Wilbraham.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 62.5 ft, screened 60.5 to 62.5 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 255 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.56 ft below land-surface datum, Mar. 28, 1979; lowest measured, 45.44 ft below land-surface datum, Jan. 24, 1966.

WATER LEVELS 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 21	42.70	JAN 24	43.69	APR 23	43.57	JUL 22	40.73
NOV 24	43.26	FEB 22	43.14	MAY 22	43.12	AUG 23	40.98
DEC 21	43.67	MAR 22	43.26	JUN 21	40.57	SEP 22	41.32

HAMPSHIRE COUNTY

421355072322001. Granby well GKW 68.
LOCATION.--Lat 42°13'55", long 72°32'20", Hydrologic Unit 01080201, about 15 ft east of Morgan Street, 0.3 mi south of East Street, and 2.0 mi southwest of Granby.
Owner: Holyoke Water Power Co.
AQUIFER.--Glacial outwash of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in, depth 18 ft, screened 16 to 18 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 239.17 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--April 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.25 ft below land-surface datum, Apr. 21, 1983; lowest measured, 11.17 ft below land-surface datum, Nov. 25, 1964.

WATER LEVELS 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 21	9.94	JAN 25	8.92	APR 22	8.13	JUL 22	9.16
NOV 24	9.46	FEB 21	8.61	MAY 22	8.51	AUG 22	9.17
DEC 21	9.22	MAR 21	8.03	JUN 21	8.79	SEP 22	8.75

421627072201701. Ware well WEW 43.
LOCATION.--Lat 42°16'27", long 72°20'17", Hydrologic Unit 01080204, 30 ft north of State Highway 9 and 200 ft east of Swift River in Ware.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Plesitocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 27.2 ft, screened 25.2 to 27.2 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 380 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
REMARKS.--Water levels affected by Swift River.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1975, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.17 ft below land-surface datum, June 22, 1984; lowest measured, 10.34 ft below land-surface datum, Jan. 26, 1971.

WATER LEVELS 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	9.08	JAN 25	9.66	APR 23	9.44	JUL 22	8.88
NOV 25	8.94	FEB 22	9.58	MAY 22	9.48	AUG 23	8.74
DEC 22	9.34	MAR 22	9.29	JUN 21	9.45	SEP 22	8.73

MIDDLESEX COUNTY

422812071244401. Acton well ACW 158.
LOCATION.--Lat 42°28'12", long 71°24'44", Hydrologic Unit 01070005, 30 ft north of State Highway 2 and 150 ft east of Wetherbee Street in Acton.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 33.8 ft, screened 31.8 to 33.8 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 153 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.37 ft below land-surface datum, Apr. 21, 1983; lowest measured, 21.86 ft below land-surface datum, Jan. 26, 1966.

WATER LEVELS 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	19.42	JAN 21	19.52	APR 22	19.59	JUL 22	20.38
NOV 21	19.69	FEB 21	19.80	MAY 23	19.85	AUG 20	20.52
DEC 26	19.66	MAR 25	19.58	JUN 24	20.10	SEP 23	20.41

423349071134101. Billerica well BCW 363.
LOCATION.--Lat 42°33'49", long 71°13'41", Hydrologic Unit 01070002, 20 ft south of Baldwin Road and 50 ft west of Westminster Road in Billerica.
Owner: Robert M. Young.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 15.5 ft, cased with stone to 15.5 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 166 ft. Measuring point: Top of hole in wooden cover, 2.35 ft above land-surface datum.
PERIOD OF RECORD.--June 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.13 ft below land-surface datum, Mar. 22, 1984; lowest measured, 13.11 ft below land-surface datum, Oct. 27, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 22	9.48	AUG 20	9.77	SEP 23	9.35

423845071231401. Chelmsford well CHW 68.
LOCATION.--Lat 42°38'45", long 71°23'14", Hydrologic Unit 01070002, 1,300 ft north of intersection of Wharton Lane and the B and M Railroad, 400 ft east of Middlesex Street, and 0.5 mi north of Vinal Square in North Chelmsford.
Owner: Wellman Realty Company.
AQUIFER.--Glacial outwash of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 50 ft, cased to 50 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 100.83 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of hole in cap on casing, 1.40 ft below land-surface datum.
PERIOD OF RECORD.--August 1939 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.04 ft below land-surface datum; Mar. 23, 1983; lowest measured, 12.24 ft below land-surface datum, Sept. 28, 1957.

WATER LEVELS 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	9.77	JAN 22	8.21	APR 22	7.93	JUL 22	11.00
NOV 21	8.60	FEB 21	8.41	MAY 23	8.50	AUG 20	10.50
DEC 26	8.05	MAR 25	7.28	JUN 24	9.97	SEP 23	9.54

MIDDLESEX COUNTY--Continued

423546071190702. Chelmsford well CHW 385.
LOCATION.--Lat 42°35'46", long 71°19'07", Hydrologic Unit 01070002, 15 ft east of U.S. Highway 3 and 0.4 mi north of State Highway 129 in Chelmsford.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 42.8 ft, screened 40.8 to 42.8 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 123.30 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.83 ft below land-surface datum, June 25, 1982; lowest measured, 19.04 ft below land-surface datum, Nov. 21, 1965.

WATER LEVELS 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	16.85	JAN 22	16.66	APR 22	16.61	JUL 22	17.34
NOV 21	16.47	FEB 21	16.66	MAY 23	16.70	AUG 20	17.39
DEC 26	16.26	MAR 25	16.37	JUN 24	16.25	SEP 23	17.05

422637071202701. Concord well CTW 165.
LOCATION.--Lat 42°26'37", long 71°20'27", Hydrologic Unit 01070005, 30 ft south of State Highway 2 and 0.1 mi west of State Highway 126 in Concord.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 66.7 ft, screened 64.7 to 66.7 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 201.12 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--February 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.50 ft below land-surface datum, July 20, 1984; lowest measured, 47.10 ft below land-surface datum, Feb. 28, 1967.

WATER LEVELS 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	37.32	JAN 21	38.83	APR 22	40.31	JUL 22	41.31
NOV 21	37.90	FEB 21	39.61	MAY 23	40.53	AUG 20	41.60
DEC 26	38.52	MAR 25	40.02	JUN 24	40.80	SEP 23	41.92

422650071214402. Concord well CTW 167.
LOCATION.--Lat 42°26'50", long 71°21'44", Hydrologic Unit 01070005, 10 ft south of State Highway 2 and 10 ft west of Sudbury Road in Concord.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 24.8 ft, screened 21.8 to 24.8 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 135 ft. Measuring point: Top of casing, 3.30 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.47 ft below land-surface datum, Apr. 21, 1984; lowest measured, 10.59 ft below land-surface datum, Sept. 27, 1966.

WATER LEVELS 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	8.68	JAN 21	7.73	APR 22	7.50	JUL 22	8.81
NOV 21	7.99	FEB 21	7.67	MAY 23	7.82	AUG 20	9.05
DEC 26	7.20	MAR 25	7.12	JUN 24	8.33	SEP 23	8.21

MIDDLESEX COUNTY--Continued

422627071154002. Lexington well LTW 104.
LOCATION.--Lat 42°26'27", long 71°15'40", Hydrologic Unit 01090001, at The Commonwealth of Massachusetts Department of Public Works maintenance depot, 0.2 mi west of State Highway 128 and 500 ft south of State Highway 2A in Lexington.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 20.7 ft, screened 18.7 to 20.7 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 180 ft. Measuring point: Top of casing, 4.5 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.22 ft below land-surface datum, Mar. 20, 1984; lowest measured, 4.35 ft below land-surface datum, Aug. 26, 1975.

WATER LEVELS 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	3.14	JAN 21	2.84	APR 22	2.67	JUL 22	3.15
NOV 21	2.87	FEB 21	2.60	MAY 23	2.70	AUG 20	3.22
DEC 26	2.47	MAR 26	2.56	JUN 24	2.96	SEP 23	3.04

424055071435301. Townsend well TRW 13.
LOCATION.--Lat 42°40'55", long 71°43'53", Hydrologic Unit 01070004, 15 ft south of Dudley Road and 15 ft north of Turnpike Road in Townsend.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 32.9 ft, screened 30.9 to 32.9 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 313 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.65 ft below land-surface datum, Apr. 22, 1983; lowest measured, 17.41 ft below land-surface datum, Jan. 26, 1966.

WATER LEVELS 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	13.87	JAN 22	14.72	APR 22	14.05	JUL 22	14.86
NOV 21	14.28	FEB 21	14.73	MAY 24	14.10	AUG 20	15.12
DEC 26	14.66	MAR 26	14.02	JUN 24	14.46	SEP 23	15.45

423115071032001. Wakefield well WAW 38.
LOCATION.--Lat 42°31'15", long 71°03'20", Hydrologic Unit 01090001, 75 ft north of State Highway 128 and 0.4 mi southeast of Saugus River in Wakefield.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 25.5 ft, screened 23.5 to 25.5 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 80 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.51 ft below land-surface datum, Mar. 27, 1969; lowest measured, 9.99 ft below land-surface datum, Sept. 22, 1965.

WATER LEVELS 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	8.62	JAN 22	7.64	APR 22	7.12	JUL 22	7.87
NOV 21	8.13	FEB 21	7.42	MAY 23	7.27	AUG 20	7.81
DEC 26	7.13	MAR 25	6.86	JUN 24	7.53	SEP 23	7.48

MIDDLESEX COUNTY--Continued

421852071220501. Wayland well WKW 2.
LOCATION.--Lat 42°18'52", long 71°22'05", Hydrologic Unit 01070005, 0.25 mi west of State Highway 27 and 100 ft south of State Highway 30, at Cochituate State Park in Wayland.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 33.0 ft, screened 31.0 to 33.0 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 157.75 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.96 ft below land-surface datum, Mar. 27, 1972; lowest measured, 17.47 ft below land-surface datum, Jan. 22, 1981.

WATER LEVELS 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	16.76	JAN 21	16.78	APR 22	16.75	JUL 22	16.69
NOV 21	16.55	FEB 21	16.86	MAY 23	16.50	AUG 20	16.50
DEC 26	16.53	MAR 26	16.68	JUN 24	16.39	SEP 23	16.46

423401071093801. Wilmington well XMW 78.
LOCATION.--Lat 42°34'01", long 71°09'38", Hydrologic Unit 01090001, at Whitefield Public School in Wilmington, about 30 ft west of State Highway 62, and 0.3 mi north of Concord Street.
Owner: Town of Wilmington.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 42 in, depth 12 ft, cased with stone to 12 ft, open end.
INSTRUMENTATION.--Continuous graphic recorder March 1958 to September 1982, digital recorder (60-minute punch) October 1984 to current year.
DATUM.--Elevation of land-surface datum is 95 ft. Measuring point: Hole in base of wooden recorder shelter, 0.33 ft above land-surface datum.
PERIOD OF RECORD.--July 1951 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.44 ft below land-surface datum, Mar. 23, 1983; lowest measured, 11.27 ft below land-surface datum, Oct. 30, 1957.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9.61	9.16	8.40	8.86	8.63	8.14	8.48	8.71	8.92	8.70	8.70
2	---	9.61	9.18	8.39	8.88	8.62	8.14	8.51	8.72	8.92	8.72	8.67
3	---	9.61	9.19	8.38	8.90	8.63	8.15	8.49	8.73	8.92	8.71	8.64
4	---	9.61	9.17	8.36	8.92	8.64	8.17	8.46	8.75	8.91	8.69	8.61
5	---	9.60	9.15	8.35	8.93	8.62	8.19	8.47	8.76	8.93	8.68	8.60
6	---	9.57	9.08	8.35	8.94	8.62	8.19	8.49	8.77	8.94	8.68	8.56
7	---	9.56	9.02	8.34	8.95	8.60	8.22	8.46	8.78	8.97	8.67	8.48
8	---	9.55	8.99	8.34	8.97	8.57	8.23	8.47	8.79	8.99	8.68	8.45
9	---	9.55	8.96	8.36	8.98	8.53	8.20	8.48	8.81	9.00	8.71	8.44
10	---	9.55	8.94	8.38	9.00	8.50	8.20	8.47	8.82	9.01	8.74	8.40
11	---	9.52	8.91	8.39	9.01	8.47	8.19	8.48	8.84	8.98	8.78	8.36
12	---	9.33	8.89	8.40	8.99	8.41	8.21	8.50	8.85	9.02	8.82	8.33
13	---	9.27	8.86	8.42	8.42	8.30	8.23	8.51	8.86	9.03	8.86	8.30
14	---	9.24	8.84	8.44	8.63	8.21	8.23	8.53	8.87	9.03	8.89	8.29
15	9.68	9.20	8.82	8.47	8.64	8.12	8.23	8.54	8.89	9.04	8.92	8.28
16	9.69	9.16	8.80	8.51	8.64	8.05	8.23	8.55	8.90	9.03	8.95	8.29
17	9.70	9.13	8.77	8.53	8.64	7.99	8.26	8.56	8.86	9.04	8.98	8.31
18	9.71	9.11	8.75	8.56	8.64	7.94	8.27	8.57	8.86	9.05	9.01	8.35
19	9.71	9.09	8.74	8.58	8.64	7.92	8.28	8.59	8.89	9.06	9.03	8.37
20	9.72	9.08	8.72	8.60	8.64	7.90	8.30	8.60	8.91	9.07	9.06	8.41
21	9.73	9.07	8.71	8.63	8.65	7.90	8.32	8.62	8.93	9.09	9.08	8.45
22	9.74	9.07	8.67	8.65	8.65	7.90	8.33	8.62	8.94	9.09	9.11	8.50
23	9.63	9.06	8.62	8.67	8.65	7.89	8.35	8.63	8.95	9.10	9.13	8.53
24	9.62	9.07	8.58	8.70	8.65	7.91	8.37	8.64	8.97	9.12	9.16	8.56
25	9.63	9.08	8.54	8.72	8.65	7.95	8.37	8.64	8.98	9.14	9.17	8.56
26	9.64	9.09	8.52	8.74	8.66	7.98	8.39	8.66	8.99	9.12	9.14	8.59
27	9.64	9.12	8.49	8.77	8.64	8.00	8.41	8.67	9.00	8.81	9.12	8.59
28	9.63	9.14	8.45	8.79	8.65	8.02	8.42	8.69	8.97	8.90	9.15	8.61
29	9.63	9.15	8.43	8.81	---	8.06	8.45	8.69	8.92	8.91	9.18	8.63
30	9.62	9.15	8.42	8.83	---	8.10	8.46	8.69	8.92	8.92	9.04	8.65
31	9.61	---	8.41	8.85	---	8.14	---	8.70	---	8.93	8.67	---
MEAN	---	9.30	8.80	8.54	8.76	8.23	8.27	8.56	8.86	9.00	8.91	8.48
LOW	---	9.61	9.19	8.85	9.01	8.64	8.46	8.70	9.00	9.14	9.18	8.70
HIGH	---	9.06	8.41	8.34	8.42	7.89	8.14	8.46	8.71	8.81	8.67	8.28

WTR YR 1985 MAX 7.89 MAR 20-23 MIN 9.74 OCT 22

MIDDLESEX COUNTY--Continued

422819071065701. Winchester well XOW 14.
LOCATION.--Lat 42°28'19", long 71°06'57", Hydrologic Unit 01090001, at 220 Forest Street and 100 ft north of Forest Street in Winchester.
Owner: J. E. Sharkey.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in, depth 17.0 ft, cased with stone to 17.0 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 116.29 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of angle iron, at land-surface datum.
PERIOD OF RECORD.--July 1940 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.03 ft below land-surface datum, Mar. 26, 1969; lowest measured, 15.60 ft below land-surface datum, Oct. 31, 1957.

WATER LEVELS 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	14.07	JAN 22	9.90	APR 22	9.52	JUL 22	11.86
NOV 21	12.35	FEB 21	9.59	MAY 23	10.53	AUG 20	11.41
DEC 26	8.46	MAR 25	8.21	JUN 24	11.15	SEP 23	10.86

NANTUCKET COUNTY

411555070021901. Nantucket well NBW 228.
LOCATION.--Lat 41°15'55", long 70°02'19", Hydrologic Unit 01090002, 165 ft south of Milestone Road and 300 ft east of Madequecham Valley Brook in Nantucket.
Owner: Nantucket Conservation Foundation.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 35.6 ft, screened 32.6 to 35.6 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 39 ft. Measuring point: Top of casing, 0.7 ft above land-surface datum.
PERIOD OF RECORD.--March 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.45 ft below land-surface datum, Apr. 21, 1978; lowest measured, 27.90 ft below land-surface datum, Feb. 23, 1981.

WATER LEVELS 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	23.82	JAN 25	25.35	APR 26	25.60	JUL 26	25.15
NOV 29	24.36	FEB 26	25.82	MAY 27	25.48	AUG 28	25.06
JAN 10	25.13	MAR 26	26.02	JUN 24	25.45	SEP 25	25.32

NORFOLK COUNTY

421250071090901. Dedham well DDW 231.
LOCATION.--Lat 42°12'50", long 71°09'09", Hydrologic Unit 01090001, 50 ft south of State Highway 128 and 0.3 mi west of University Avenue in Dedham.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 21.9 ft, screened 19.9 to 21.9 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 65 ft. Measuring point: Top of casing, 2.3 ft above land-surface datum. Prior to July 17, 1978, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.45 ft below land-surface datum, Mar. 28, 1978; lowest measured, 13.81 ft below land-surface datum, Sept. 27, 1965.

WATER LEVELS 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	11.26	JAN 23	7.73	APR 23	6.18	JUL 22	9.00
NOV 23	9.85	FEB 22	6.52	MAY 21	6.32	AUG 27	10.31
DEC 27	7.53	MAR 22	5.10	JUN 24	8.10	SEP 26	10.55

NORFOLK COUNTY--Continued

421435071165701. Dover well DVW 10.
LOCATION.--Lat 42°14'35", long 71°16'57", Hydrologic Unit 01090001, at Dover Public School about 400 ft southwest of and about 400 ft west of Center Street in Dover.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 54 ft, screened 52 to 54 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 160 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.25 ft below land-surface datum, Feb. 20, 1970; lowest measured, 36.87 ft below land-surface datum, Jan. 21, 1966.

WATER LEVELS 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	34.54	JAN 22	34.90	APR 22	34.60	JUL 23	34.62
NOV 20	34.75	FEB 22	34.93	MAY 22	34.50	AUG 27	34.60
DEC 26	34.96	MAR 22	34.89	JUN 24	34.40	SEP 27	34.76

420432071151201. Foxborough well FXW 3.
LOCATION.--Lat 42°04'32", long 71°15'12", Hydrologic Unit 01090004, at Foxborough State Hospital, near railroad tracks, 100 ft east of driveway, and 250 ft north of Chestnut Street in Foxborough.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 32 ft, screened 30 to 32 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 290 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.24 ft below land-surface datum, Mar. 25, 1968; lowest measured, 21.42 ft below land-surface datum, Dec. 28, 1965.

WATER LEVELS 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	20.13	JAN 22	19.62	APR 22	19.03	JUL 23	20.07
NOV 20	20.02	FEB 22	19.50	MAY 21	19.34	AUG 27	20.37
DEC 26	19.77	MAR 22	19.10	JUN 24	19.88	SEP 26	20.46

420545071174001. Norfolk well NNW 27.
LOCATION.--Lat 42°05'45", long 71°17'40", Hydrologic Unit 01090001, 15 ft northwest of State Highway 1A and 0.1 mi northeast of Valley Street in Norfolk.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 18.4 ft, screened 16.4 to 18.4 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 160 ft. Measuring point: Top of casing, 1.7 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.73 ft below land-surface datum, Sept. 26, 1975; lowest measured, 7.97 ft below land-surface datum, Sept. 24, 1980.

WATER LEVELS 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	6.60	JAN 22	6.47	APR 22	6.37	JUL 23	7.27
NOV 20	6.39	FEB 22	6.33	MAY 21	6.34	AUG 27	7.93
DEC 26	6.11	MAR 22	6.15	JUN 24	6.88	SEP 26	7.90

NORFOLK COUNTY--Continued

420954070564501. Weymouth well XGW 2.
LOCATION.--Lat 42°09'54", long 70°56'45", Hydrologic Unit 01090001, 40 ft south of main gate guard house at U.S. Naval Air Station at Weymouth.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 30 ft, screened 28 to 30 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 180 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.25 ft below land-surface datum, Jan. 28, 1970; lowest measured, 22.63 ft below land-surface datum, Nov. 21, 1980.

WATER LEVELS 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	18.46	JAN 23	16.80	APR 23	12.95	JUL 22	16.63
NOV 23	18.69	FEB 22	15.83	MAY 21	12.88	AUG 26	19.02
DEC 27	17.98	MAR 22	12.95	JUN 24	14.95	SEP 27	19.99

421147070571901. Weymouth well XGW 3.
LOCATION.--Lat 42°11'47", long 70°57'19", Hydrologic Unit 01090001, about 100 ft east of State Highway 18 and about 600 ft off State Highway 3 in Weymouth.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 22.3 ft, screened 20.3 to 22.3 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 90 ft. Measuring point: Top of casing, 2.5 ft above land-surface datum.
REMARKS.--Water level affected by pumping.
PERIOD OF RECORD.--January 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.91 ft below land-surface datum, Jan. 27, 1978; lowest measured, 18.10 ft below land-surface datum, Sept. 27, 1965.

WATER LEVELS 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	7.26	JAN 23	6.30	APR 23	5.38	JUL 22	6.59
NOV 23	7.02	FEB 22	4.95	MAY 21	5.36	AUG 26	8.45
DEC 27	5.39	MAR 22	4.95	JUN 24	5.66	SEP 27	7.11

421120070562801. Weymouth well XGW 4.
LOCATION.--Lat 42°11'20", long 70°56'28", Hydrologic Unit 01090001, at median strip of State Highway 3 and 0.8 mi south of State Highway 18 in Weymouth.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 22.6 ft, screened 20.6 to 22.6 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 90 ft. Measuring point: Top of casing, 2.5 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 4.75 ft below land-surface datum, Mar. 29, 1983; lowest measured, 10.45 ft below land-surface datum, Sept. 27, 1965.

WATER LEVELS 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	7.60	JAN 23	7.55	APR 23	7.20	JUL 22	7.78
NOV 23	7.88	FEB 22	6.80	MAY 21	7.23	AUG 26	8.27
DEC 27	7.01	MAR 22	6.58	JUN 24	7.75	SEP 27	8.10

PLYMOUTH COUNTY

420321070433502. Duxbury well D4W 79.
LOCATION.--Lat 42°03'21", long 70°43'35", Hydrologic Unit 01090002, 30 ft west of State Highway 3 and about 300 ft north of State Highway 14 in Duxbury.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and silty clay of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 23.5 ft, screened 21.5 to 23.5 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 55 ft. Measuring point: Top of casing, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.10 ft below land-surface datum, Jan. 26, 1978; lowest measured, 10.68 ft below land-surface datum, Sept. 28, 1965.

WATER LEVELS 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	8.39	JAN 23	8.39	APR 23	8.67	JUL 22	8.79
NOV 23	8.64	FEB 22	8.35	MAY 22	8.48	AUG 26	9.11
DEC 27	8.18	MAR 22	8.34	JUN 24	8.80	SEP 27	8.85

420317070432901. Duxbury well D4W 80.
LOCATION.--Lat 42°03'17", long 70°43'29", Hydrologic Unit 01090002, 78 ft south of State Highway 14 and 250 ft east of State Highway 3 in Duxbury.
Owner: The Commonwealth of Massachusetts Department of Public Works.
AQUIFER.--Bedrock.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6.0 in, depth 181 ft, cased to 59 ft, open hole.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 65 ft. Measuring point: Top of hole in concrete cover, at land-surface datum.
PERIOD OF RECORD.--April 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.53 ft below land-surface datum, Jan. 26, 1978; lowest measured, 24.02 ft below land-surface datum, Sept. 28, 1965.

WATER LEVELS 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	21.50	NOV 23	22.17	AUG 26	22.37	SEP 27	22.35

420056070575701. East Bridgewater well EBW 30.
LOCATION.--Lat 42°00'56", long 70°57'57", Hydrologic Unit 01090004, about 100 ft north of State Highway 106 and 800 ft west of State Highway 18 in East Bridgewater.
Owner: East Bridgewater Medical Center.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in, depth 24 ft, cased with stone to 24 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 85 ft. Measuring point: Top of stone casing curb, 2.6 ft above land-surface datum.
PERIOD OF RECORD.--July 1958 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.40 ft below land-surface datum, Mar. 27, 1969; lowest measured, 17.83 ft below land-surface datum, Dec. 28, 1965.

WATER LEVELS 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	14.35	JAN 23	12.34	APR 23	9.98	JUL 22	13.11
NOV 23	13.90	FEB 22	11.59	MAY 22	9.97	AUG 26	14.75
DEC 27	13.45	MAR 22	9.70	JUN 25	11.53	SEP 27	13.34

PLYMOUTH COUNTY--Continued

415820070522801. Halifax well HBW 97.
LOCATION.--Lat 41°58'20", long 70°52'28", Hydrologic Unit 01090004, 1,950 ft west of South Street and 130 ft south of River Street in Halifax.
Owner: Richard W. Green.
AQUIFER.--Sandstone interbedded with shale and conglomerate of Carboniferous age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 3.0 in, depth 945 ft, cased to 90 ft, open hole.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 35 ft. Measuring point: Top of casing, 0.5 ft above land-surface datum.
PERIOD OF RECORD.--April 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.30 ft below land-surface datum, Jan. 26, 1978; lowest measured, 5.82 ft below land-surface datum, Oct. 24, 1980.

WATER LEVELS 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	4.43	JAN 23	4.09	APR 23	4.08	JUL 22	4.47
NOV 23	4.35	FEB 22	3.92	MAY 21	3.85	AUG 26	4.70
DEC 27	4.08	MAR 22	3.76	JUN 25	4.20	SEP 26	4.30

420353070520301. Hanson well HGW 76.
LOCATION.--Lat 42°03'53", long 70°52'03", Hydrologic Unit 01090002, 100 ft south of State Highway 14 and 150 ft west of town hall in Hanson.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 26.6 ft, screened 24.6 to 26.6 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 71 ft. Measuring point: Top of casing, 1.5 ft above land-surface datum.
REMARKS.--Water level affected by Wampatuck Pond.
PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.50 ft below land-surface datum, Mar. 26, 1969; lowest measured, 6.53 ft below land-surface datum, Sept. 25, 1980.

WATER LEVELS 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	4.97	JAN 23	4.99	APR 23	4.89	JUL 22	5.22
NOV 23	4.97	FEB 22	4.59	MAY 22	4.83	AUG 26	5.17
DEC 27	4.75	MAR 22	4.59	JUN 25	5.10	SEP 27	5.26

415228070554601. Lakeville well LKW 14.
LOCATION.--Lat 41°52'28", long 70°55'46", Hydrologic Unit 01090004, 30 ft west of parking lot at Lakeville State Hospital in Lakeville.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 41 ft, screened 39 to 41 ft.
INSTRUMENTATION.--Monthly or more frequent measurements with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 105 ft. Measuring point: Top of casing, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--June 1964 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.28 ft below land-surface datum, Mar. 29, 1983; lowest measured, 23.59 ft below land-surface datum, Oct. 26, 1966.

WATER LEVELS 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 16	16.57	FEB 22	16.82	JUN 04	16.63	AUG 06	18.59
25	16.87	MAR 05	16.64	11	16.80	13	18.69
NOV 23	17.01	22	16.29	21	17.35	22	18.97
26	17.08	APR 22	16.49	25	17.48	27	19.06
27	17.09	24	16.55	26	17.50	SEP 04	18.72
DEC 06	17.16	30	16.71	JUL 02	17.65	12	18.50
27	17.07	MAY 17	16.26	11	17.90	20	18.29
JAN 15	16.78	21	16.28	22	18.25	25	18.37
23	16.91	29	16.48	31	18.30	26	18.45

415433070583302. Middleborough well MTW 82.
LOCATION.--Lat 41°54'33", long 70°58'33", Hydrologic Unit 01090004, 15 ft southeast of southbound side of State Highway 25 and 435 ft southeast of Puddingshear Brook in Middleborough.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 26.5 ft, screened 24.5 to 26.5 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 45 ft. Measuring point: Top of casing, 3.5 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.50 ft below land-surface datum, Mar. 24, 1983; lowest measured, 17.58 ft below land-surface datum, Oct. 24, 1980.

WATER LEVELS 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	15.70	JAN 23	11.49	APR 23	9.22	JUL 22	13.32
NOV 23	15.37	FEB 22	10.81	MAY 21	9.67	AUG 26	14.56
DEC 27	13.45	MAR 22	7.56	JUN 25	11.82	SEP 26	12.35

415453070434901. Plymouth well PWW 22.
LOCATION.--Lat 41°54'53", long 70°43'49", Hydrologic Unit 01090004, 10 ft from northeast corner of main building at Plymouth Airport.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial outwash of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in, depth 42 ft, screened 40 to 42 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 145 ft. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--November 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.82 ft below land-surface datum, May 26, 1958; lowest measured, 28.99 ft below land-surface datum, Jan. 28, 1966.

WATER LEVELS 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	23.25	JAN 23	25.02	APR 23	25.03	JUL 22	25.52
NOV 23	23.89	FEB 22	24.84	MAY 21	25.18	AUG 26	25.56
DEC 27	24.48	MAR 22	25.11	JUN 25	25.37	SEP 26	25.24

414518070435701. Wareham well WFW 51.
LOCATION.--Lat 41°45'18", long 70°43'57", Hydrologic Unit 01090002, 50 ft east of U.S. Highway 6 and 100 ft north of Exxon service station in Wareham.
Owner: Thomas B. Rogers.
AQUIFER.--Glacial outwash of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 9.65 ft, cased with tile to 9.65 ft, open end. Prior to September 1980, well depth was 12.5 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 21 ft. Measuring point: Top edge of tile casing, 2.5 ft above land-surface datum.
PERIOD OF RECORD.--July 1959 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.34 ft below land-surface datum, Jan. 26, 1978; lowest measured, 10.98 ft below land-surface datum, Dec. 28, 1965; well found dry several months in water years 1980-84.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	7.69	DEC 27	9.98	MAR 21	6.60
NOV 23	6.89	JAN 23	6.82	MAY 22	8.75

SUFFOLK COUNTY

422133071033801. Boston well BGW 925.
LOCATION.--Lat 42°21'33", long 71°03'38", Hydrologic Unit 01090001, in basement room at Scollay Building, intersection of Court and Tremont Streets in Boston.
Owner: United States Trust.
AQUIFER.--Cambridge slate of Carboniferous age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8.0 in, depth 624 ft, cased to 90 ft, open hole.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 35 ft. Measuring point: Top of casing, 15 ft below land-surface datum.
REMARKS.--Water levels affected by tide and barometric pressure.
PERIOD OF RECORD.--February 1960 to current year. Water-level recorder October 1977 to September 1982. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 17.49 ft below measuring point, Jan. 22, 1985; lowest measured, 26.20 ft below measuring point, Oct. 7, 1966.

WATER LEVELS 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	17.77	JAN 22	17.49	APR 22	17.88	JUL 26	17.87
NOV 20	17.70	FEB 21	17.94	MAY 22	17.83	AUG 27	17.76
DEC 26	17.55	MAR 21	17.92	JUN 27	17.97	SEP 30	17.92

WORCESTER COUNTY

422058072085501. Hardwick well HHW 1.
LOCATION.--Lat 42°20'58", long 72°08'55", Hydrologic Unit 01080204, 30 ft southeast of State Highway 32 and 0.6 mi southwest of Hardwick Road in Hardwick.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 33.2 ft, screened 31.2 to 33.2 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 580 ft. Measuring point: Top of casing, 3.5 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.21 ft below land-surface datum, Apr. 21, 1983; lowest measured, 17.77 ft below land-surface datum, Nov. 22, 1965.

WATER LEVELS 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 19	16.69	JAN 21	16.60	APR 22	15.34	JUL 22	16.39
NOV 20	16.75	FEB 21	16.57	MAY 21	16.06	AUG 21	16.24
DEC 21	16.73	MAR 22	15.04	JUN 21	16.03	SEP 23	15.76

421837071380901. Northborough well NUW 38.
LOCATION.--Lat 42°18'37", long 71°38'09", Hydrologic Unit 01070005, 0.7 mi south of U.S. Highway 20 and about 400 ft west of School Street in Northborough.
Owner: Eric MacLean.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 14 ft, cased with concrete to 14 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 285 ft. Measuring point: Top edge of concrete casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--August 1962 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.96 ft below land-surface datum, Mar. 25, 1969; lowest measured, 13.30 ft below land-surface datum, Sept. 28, 1965.

WATER LEVELS 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 19	9.86	JAN 21	6.01	APR 22	5.80	JUL 22	6.73
NOV 20	8.15	FEB 21	5.03	MAY 21	6.13	AUG 21	6.82
DEC 21	4.86	MAR 22	6.90	JUN 21	5.27	SEP 23	5.98

WORCESTER COUNTY--Continued

420610071421401. Northbridge well NXW 1.
LOCATION.--Lat 42°06'10", long 71°42'14", Hydrologic Unit 01090003, about 100 ft northeast of the intersection of State Highway 146 and Main Street in Northbridge.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 12 ft, screened 10 to 12 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 370 ft. Measuring point: Top of casing, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--January 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.88 ft below land-surface datum, Mar. 27, 1978; lowest measured, 5.13 ft below land-surface datum, July 22, 1985.

WATER LEVELS 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 19	4.64	JAN 21	4.73	APR 22	4.85	JUL 22	5.13
NOV 20	4.62	FEB 21	4.81	MAY 21	4.92	AUG 21	5.09
DEC 21	4.74	MAR 22	4.68	JUN 21	5.03	SEP 23	5.00

422805071480801. Sterling well SYW 1.
LOCATION.--Lat 42°28'05", long 71°48'08", Hydrologic Unit 01070004, 45 ft northeast of Justice Hill Road and 0.8 mi west of South Nelson Road in Sterling.
Owner: N. Lanciani.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 15 ft, cased with stone to 15 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 710 ft. Measuring point: Top edge of angle iron, at land-surface datum.
PERIOD OF RECORD.--May 1947 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.66 ft below land-surface datum, Mar. 26, 1969; dry, Nov. 28, 1964.

WATER LEVELS 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 19	11.55	JAN 21	4.93	APR 22	3.25	JUL 22	7.02
NOV 20	8.88	FEB 21	3.17	MAY 21	3.32	AUG 21	8.31
DEC 21	6.82	MAR 22	3.12	JUN 21	4.16	SEP 23	8.06

423717072043101. Templeton well TMW 3.
LOCATION.--Lat 42°37'17", long 72°04'31", Hydrologic Unit 01080202, 60 ft east of U.S. Highway 202 and 0.2 mi south of Winchendon town line in Templeton.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 14 ft, screened 12 to 14 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 900 ft. Measuring point: Top of casing, 4.2 ft above land-surface datum.
PERIOD OF RECORD.--December 1957 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.46 ft below land-surface datum, Mar. 26, 1969; lowest measured, 5.10 ft below land-surface datum, Sept. 29, 1964.

WATER LEVELS 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 19	4.07	JAN 21	3.76	APR 22	3.73	JUL 22	4.14
NOV 20	3.60	FEB 21	3.63	MAY 21	3.90	AUG 21	3.89
DEC 21	3.50	MAR 22	3.27	JUN 21	3.94	SEP 23	4.02

WORCESTER COUNTY--Continued

420314071514001. Webster well WLW 1.
LOCATION.--Lat 42°03'14", long. 71°51'40", Hydrologic Unit 01100001, 100 ft east of State Highway 52 and 100 ft south of Memorial Beach Drive in Webster.
Owner: Town of Webster.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in, depth 27.0 ft, cased to 27.0 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 500 ft. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--September 1958 to November 1979, October 1981 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.28 ft below land-surface datum, Mar. 25, 1968; lowest measured, 17.90 ft below land-surface datum, Dec. 20, 1965; dry, Oct. 27, 1981.

WATER LEVELS 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 19	15.50	JAN 21	14.60	APR 22	15.04	JUL 22	15.46
NOV 20	15.22	FEB 21	14.88	MAY 21	15.12	AUG 21	15.24
DEC 21	14.92	MAR 22	14.58	JUN 21	15.36	SEP 23	15.11

421410072081301. West Brookfield well WUW 2.
LOCATION.--Lat 42°14'10", long 72°08'13", Hydrologic Unit 01080204, about 50 ft north of State Highway 9 and about 500 ft south of State Highway 67 in West Brookfield.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 43.0 ft, screened 40 to 43 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 630 ft. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--October 1959 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.79 ft below land-surface datum, May 22, 1983; lowest measured, 23.63 ft below land-surface datum, Feb. 21, 1966.

WATER LEVELS 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 19	18.50	JAN 21	19.79	APR 22	20.14	JUL 22	19.87
NOV 20	18.98	FEB 21	20.07	MAY 21	20.20	AUG 21	19.56
DEC 21	19.45	MAR 22	20.15	JUN 21	19.88	SEP 23	19.58

421522072113401. West Brookfield well WUW 10.
LOCATION.--Lat 42°15'22", long 72°11'34", Hydrologic Unit 01080204, 15 ft east of Coy Hill Road and 1,850 ft south of State Highway 9 in West Brookfield.
Owner: The Commonwealth of Massachusetts Department of Public Works.
AQUIFER.--Brimfield schist.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.5 in, depth 64.5 ft, cased to 40 ft, open hole.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 833.23 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.85 ft above land-surface datum.
PERIOD OF RECORD.--October 1970 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.57 ft below land-surface datum, Feb. 2, 1976; lowest measured, 12.36 ft below land-surface datum, Nov. 20, 1985.

WATER LEVELS 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 19	12.30	JAN 21	10.44	APR 22	6.53	JUL 22	6.96
NOV 20	12.36	FEB 21	10.46	MAY 21	6.69	AUG 21	6.78
DEC 21	12.01	MAR 22	7.07	JUN 21	5.81	SEP 23	7.49

WORCESTER COUNTY--Continued

423430072015201. Winchendon well XNW 13.
LOCATION.--Lat 42°42'04", long 72°01'52", Hydrologic Unit 01080202, about 50 ft east of Forristall Road, 0.2 mi north of Elmwood Road, and 1.6 mi northeast of Winchendon.
Owner: W. B. Hart.
AQUIFER.--Glacial till of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 12 ft, cased with stone to 12 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Land-surface datum is 1,209.36 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of extension pipe, 3.8 ft above land-surface datum.
PERIOD OF RECORD.--October 1939 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.86 ft below land-surface datum, Mar. 20, 1948; lowest measured, 13.36 ft below land-surface datum, Dec. 24, 1964.

WATER LEVELS 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 19	11.76	JAN 21	5.87	APR 22	4.62	JUL 22	8.66
NOV 20	8.53	FEB 21	5.53	MAY 21	4.33	AUG 21	10.20
DEC 21	6.51	MAR 22	3.42	JUN 21	6.83	SEP 23	11.04

421538071451301. Worcester well XSW 274.
LOCATION.--Lat 42°15'38", long 71°45'13", Hydrologic Unit 01090003, about 300 ft north of Hamilton Street and about 300 ft east of North Lake Avenue in Worcester.
Owner: U.S. Geological Survey.
AQUIFER.--Glacial sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 54.6 ft, screened 52.6 to 54.6 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by observer.
DATUM.--Elevation of land-surface datum is 400 ft. Measuring point: Top of casing, 3.0 ft above land-surface datum.
REMARKS.--Water levels affected by Lake Quinsigamond.
PERIOD OF RECORD.--January 1965 to current year. Prior to October 1974, published in Massachusetts Hydrologic-Data Report No. 17.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.23 ft below land-surface datum, Mar. 27, 1972; lowest measured, 24.70 ft below land-surface datum, Oct. 26, 1983.

WATER LEVELS 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 19	23.94	JAN 21	23.74	APR 22	23.73	JUL 22	23.81
NOV 20	23.76	FEB 21	23.66	MAY 21	23.72	AUG 21	23.78
DEC 21	23.78	MAR 22	23.59	JUN 21	23.68	SEP 23	24.07

KENT COUNTY

414022071332801. Coventry well COW 411.
LOCATION.--Lat 41°40'22", long 71°33'28", Hydrologic Unit 01090004, town of Coventry, about 75 ft west of house on Powhattan Avenue, 1.3 mi southeast of Washington.
Owner: Robert Card.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 26 ft, cased with concrete to 26 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 260 ft. Measuring point: Hole in top of concrete cover, 1.24 ft above land-surface datum.
PERIOD OF RECORD.--October 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.43 ft below land-surface datum, Apr. 23, 1983; lowest measured, 23.73 ft below land-surface datum, Jan. 29, 1966.

WATER LEVELS 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 27	22.86	JAN 26	23.03	APR 21	22.34	JUL 28	22.47
NOV 23	22.96	FEB 25	22.60	MAY 25	22.18	AUG 24	22.65
DEC 22	22.60	MAR 25	22.13	JUN 22	22.14	SEP 21	22.26

413907071465001. West Greenwich well WGW 181.
LOCATION.--Lat 41°39'07", long 71°46'50", Hydrologic Unit 01090005, town of West Greenwich, about 50 ft from southeast corner of a house 1.3 mi north of intersection of Hazard and Muddy Brook Roads, and 1.8 mi northwest of West Greenwich Center.
Owner: E. Lambert.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 18.5 ft, lined with stone to 18.5 ft, shored.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 380 ft. Measuring point: Edge of shelter floor, 2.19 ft above land-surface datum.
PERIOD OF RECORD.--January 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.15 ft below land-surface datum, Jan. 27, 1979; lowest measured, 17.78 ft below land-surface datum, Dec. 22, 1984.

WATER LEVELS 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 27	16.56	JAN 26	16.23	APR 21	16.11	JUL 28	16.56
NOV 23	15.53	FEB 25	15.82	MAY 25	16.12	AUG 24	16.61
DEC 22	17.78	MAR 25	15.22	JUN 22	16.28	SEP 21	16.16

PROVIDENCE COUNTY

415710071402201. Burrillville well BUW 187.
LOCATION.--Lat 41°57'10", long 71°40'22", Hydrologic Unit 01090003, town of Burrillville, 25 ft east of road and 75 ft southwest of a house 0.6 mi north of intersection of Harrisville and Lapham Farm Roads, and 0.9 mi south of Harrisville.
Owner: Brothers of the Sacred Heart.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 19.8 ft, lined with stone to 19.8 ft, shored.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 462 ft. Measuring point: Hole in base of shelter, 0.59 ft above land-surface datum.
PERIOD OF RECORD.--January 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.74 ft below land-surface datum, Apr. 23, 1983; lowest measured, 18.83 ft below land-surface datum, Nov. 3, 1970.

WATER LEVELS 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 27	18.07	JAN 26	16.45	MAY 25	15.18	AUG 24	16.70
NOV 23	16.94	FEB 25	16.13	JUN 22	15.92	SEP 21	16.72
DEC 22	16.52	MAR 25	15.41	JUL 28	16.49		

PROVIDENCE COUNTY--Continued

415626071254601. Cumberland well CUW 265.
LOCATION.--Lat 41°56'26", long 71°25'46", Hydrologic Unit 01090003, town of Cumberland, at 27 Scott Street, 900 ft northeast of intersection of Scott Street and Mendon Road in Ashton.
Owner: Francis J. Varone.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 20 ft, lined with stone to 20 ft, shored.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 130 ft. Measuring point: Hole in wooden cover, 0.06 ft above land-surface datum.
PERIOD OF RECORD.--August 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.20 ft below land-surface datum, Jan. 27, 1979; lowest measured, 17.20 ft below land-surface datum, Sept. 29, 1949.

WATER LEVELS 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 27	15.59	FEB 25	12.01	MAY 25	12.03	AUG 24	14.69
NOV 23	13.73	MAR 25	11.49	JUN 22	12.92	SEP 21	14.41
DEC 22	12.71	APR 21	12.33	JUL 28	13.73		

415437071242201. Lincoln well LIW 84.
LOCATION.--Lat 41°54'37", long 71°24'22", Hydrologic Unit 01090003, town of Lincoln, at north side of Maplehurst Farms building, and 800 ft west of Blackstone River bridge in Lonsdale.
Owner: Maplehurst Farm, Inc.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in, depth 107 ft, cased to 107 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 60 ft. Measuring point: Inside lower lip of 8-in pipe, 3.32 ft above land-surface datum.
REMARKS.--Water level affected by Blackstone River floods.
PERIOD OF RECORD.--June 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.97 ft above land-surface datum, Jan. 28, 1976, lowest measured, 7.30 ft below land-surface datum, Aug. 24, 1966.

WATER LEVELS 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 27	5.74	JAN 26	6.20	APR 21	5.81	JUL 28	5.33
NOV 23	6.09	FEB 25	5.49	MAY 25	5.49	AUG 24	5.65
DEC 22	5.68	MAR 25	5.45	JUN 22	5.43	SEP 21	5.48

415948071325001. North Smithfield well NSW 21.
LOCATION.--Lat 41°59'48", long 71°32'50", Hydrologic Unit 01090003, town of North Smithfield, 500 ft southwest of State Highway 146A, 900 ft west of intersection of State Highway 146A and Harkness Road at Branch Village.
Owner: Thomas E. Esty.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug domestic water-table well, diameter 24 in, depth 16 ft, cased with tile to 16 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Land-surface datum is 238.68 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in concrete cover at top of tile casing, 1.84 ft below land-surface datum.
REMARKS.--Well used for domestic supply. Water levels affected by pumping.
PERIOD OF RECORD.--May 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.67 ft below land-surface datum, Mar. 26, 1969; lowest measured, 11.71 ft below land-surface datum, Oct. 28, 1957.

WATER LEVELS 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 27	10.46	JAN 26	8.72	APR 21	7.99	JUL 28	9.64
NOV 23	9.38	FEB 25	7.79	MAY 25	7.97	AUG 24	10.10
DEC 22	8.83	MAR 25	7.33	JUN 22	8.94	SEP 21	10.05

PROVIDENCE COUNTY--Continued

415318071220401. Pawtucket well PAW 136.
LOCATION.--Lat 41°53'18", long 71°22'04", Hydrologic Unit 01090004, city of Pawtucket, at 314 Woodbine Street, and 1,500 ft northeast of intersection of Cottage Street and Central Avenue.
Owner: Greenhalgh Mills, Inc.
AQUIFER.--Gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in, depth 43 ft, cased to about 40 ft, screened about 40 to 43 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 86 ft. Measuring point: Top of casing, 3.15 ft above land-surface datum.
PERIOD OF RECORD.--January 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.98 ft below land-surface datum, Apr. 23, 1983; lowest measured, 7.28 ft below land-surface datum, Jan. 29, 1966.

WATER LEVELS 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 27	5.35	JAN 26	5.90	APR 21	5.90	JUL 28	5.86
NOV 23	5.42	FEB 25	5.84	MAY 25	5.93	AUG 24	6.14
DEC 22	4.85	MAR 25	5.80	JUN 22	5.98	SEP 21	5.94

414746071255601. Providence well PRW 48.
LOCATION.--Lat 41°47'46", long 71°25'56", Hydrologic Unit 01090004, city of Providence, at 333 Adelaide Avenue, and 800 ft northwest of Adelaide and 800 ft west of Narragansett Avenues.
Owner: Gorham Division of Textron.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in, depth 124 ft, cased to 116 ft, screened 116 to 124 ft.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Land-surface datum is 45.79 ft, above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of hole in center of steel cover, 0.48 ft below land-surface datum.
REMARKS.--Water level affected by pumping from one or more nearby wells.
PERIOD OF RECORD.--December 1944 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.78 ft below land-surface datum, Apr. 23, 1983; lowest measured, 10.22 ft below land-surface datum, Oct. 20, 1947.

WATER LEVELS 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 27	4.28	JAN 26	4.55	APR 21	4.64	JUL 28	4.82
NOV 23	4.21	FEB 25	4.61	MAY 25	4.76	AUG 24	4.83
DEC 22	4.08	MAR 25	4.49	JUN 22	4.64	SEP 21	4.60

414939071260801. Providence well PRW 1051.
LOCATION.--Lat 41°49'39", long 71°26'08", Hydrologic Unit 01090004, city of Providence, at 10 Eagle Street, and 200 ft south of Valley and 300 ft east of Eagle Streets.
Owner: Licht Industries.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 10 in, depth 82 ft, cased to 82 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 10 ft. Measuring point: Floor of recorder shelter, 1.65 ft above land-surface datum.
REMARKS.--Water level affected by pumping from one or more nearby wells. Since October 1971, reduced pumping has resulted in higher water levels.
PERIOD OF RECORD.--January 1948 to current year. January 1948 to March 1949, weekly water level measurements. April 1949 to February 1976, continuous graphic recorder (published water levels were monthly lows). Since April 1976, water levels measured near end of month.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, observed flowing at times in 1978-80; lowest measured, 16.10 ft below land-surface datum, Jan. 16, 1948.

WATER LEVELS 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 27	.89	JAN 26	1.36	APR 21	1.57	JUL 28	1.77
NOV 23	1.09	FEB 25	1.38	MAY 25	1.56	AUG 24	1.86
DEC 22	1.10	MAR 25	1.43	JUN 22	1.62	SEP 21	1.82

WASHINGTON COUNTY

412214071394001. Charlestown well CHW 18.
LOCATION.--Lat 41°22'14", long 71°39'40", Hydrologic Unit 01090005, town of Charlestown, 1,900 ft southeast of U.S. Highway 1, at former U.S. Navy Auxiliary Air Station.
Owner: U.S. General Services Administration.
AQUIFER.--Sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in, depth 32 ft, cased to 32 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 26 ft. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--October 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.09 ft below land-surface datum, Apr. 23, 1983; lowest measured, 21.63 ft below land-surface datum, Dec. 29, 1965.

WATER LEVELS 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 27	19.56	JAN 26	20.36	APR 21	18.86	JUL 28	19.20
NOV 23	20.07	FEB 25	20.40	MAY 25	18.81	AUG 24	19.82
DEC 22	20.37	MAR 25	18.54	JUN 22	18.12	SEP 21	15.91

413423071431901. Exeter well EXW 6.
LOCATION.--Lat 41°34'23", long 71°43'19", Hydrologic Unit 01090005, town of Exeter, in Arcadia State Forest, 150 ft west of Wood River, 250 ft south of Ten Rod Road, and 2.0 mi west of Millville.
Owner: State Dept. of Natural Resources.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 10 ft, cased with concrete to 10 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Land-surface datum is 132.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole on east side of concrete cover, at land-surface datum.
REMARKS.--Water level affected by stage of nearby Wood River.
PERIOD OF RECORD.--December 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.34 ft below land-surface datum, Jan. 27, 1979; lowest measured, 7.97 ft below land-surface datum, Sept. 26, 1981.

WATER LEVELS 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 27	6.43	JAN 26	6.40	APR 20	6.00	JUL 28	6.41
31	6.33	27	6.41	21	6.02	AUG 24	6.87
NOV 23	6.46	FEB 23	6.12	MAY 25	6.11	SEP 14	6.15
28	6.53	25	6.07	JUN 22	6.04	21	6.38
DEC 22	5.95	MAR 25	5.73	30	6.03		
26	6.05	31	5.80	JUL 27	6.37		

413307071323601. Exeter well EXW 16.
LOCATION.--Lat 41°33'07", long 71°32'36", Hydrologic Unit 01090005, town of Exeter, about 25 ft southwest of fire station at Exeter State (Dr. Joseph H. Ladd) School.
Owner: State Dept. of Public Welfare.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2.5 in, depth 27 ft, cased to 27 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Land-surface datum is 154.47 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.78 ft above land-surface datum.
REMARKS.--Nearby well either being pumped or pumped recently.
PERIOD OF RECORD.--July 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.98 ft below land-surface datum, May 21, 1983; lowest measured, 15.40 ft below land-surface datum, Oct. 30, 1957.

WATER LEVELS 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 27	11.95	JAN 26	12.28	APR 21	11.45	JUL 28	11.74
NOV 23	12.22	FEB 25	12.13	MAY 25	11.22	AUG 24	12.15
DEC 22	12.08	MAR 25	11.40	JUN 22	11.35	SEP 21	10.69

WASHINGTON COUNTY--Continued

413358071433801. Exeter well EXW 475.
LOCATION.--Lat 41°33'58", long 71°43'38", Hydrologic Unit 01090005, town of Exeter, 70 ft east of Mt. Tom Road, 50 ft north of Blitzkrieg Trail, and 2.4 mi northwest of Barberville.
Owner: State Department of Environmental Management.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in, depth 40 ft, cased to 38 ft, screened 38 to 40 ft.
INSTRUMENTATION.--Continuous graphic recorder.
DATUM.--Land-surface datum is 146.40 ft, above National Geodetic Vertical Datum of 1929. Measuring point: floor of recorder shelter, 3.48 ft above land-surface datum.
PERIOD OF RECORD.--March 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.58 ft below land-surface datum, Apr. 28, 29, 1983; lowest, 16.74 ft below land-surface datum, Oct. 19, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
HIGH FOR DAY

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	15.21	JAN 10	15.54	APR 10	14.72	JUL 15	15.38
10	15.32	15	15.57	15	14.79	20	15.45
27	a15.58	20	15.60	20	14.79	27	a15.49
31	a15.59	25	15.63	21	a14.87	28	a15.59
NOV 05	15.63	26	a15.63	25	14.94	31	15.63
10	15.67	27	a15.64	30	15.03	AUG 05	15.70
15	15.59	31	15.66	MAY 05	14.93	10	15.76
20	15.61	FEB 05	15.66	10	14.93	15	15.84
23	a15.69	10	15.66	15	14.97	20	15.94
25	15.72	15	15.52	20	15.01	24	a16.03
29	a15.74	20	15.48	25	a15.10	25	16.04
30	15.76	23	a15.48	31	15.09	31	15.64
DEC 05	15.74	25	a15.49	JUN 05	15.06	SEP 05	15.44
10	15.67	28	15.50	10	15.01	10	15.28
15	15.68	MAR 05	15.47	15	15.08	14	a16.23
20	15.70	10	15.39	20	15.04	15	15.23
22	a15.69	15	15.04	22	a15.09	20	15.23
25	15.62	20	14.82	25	15.12	21	a15.26
26	a15.61	25	14.74	30	a15.07	25	15.29
31	15.56	31	a14.63	JUL 05	15.20	30	15.32
JAN 05	15.54	APR 05	14.69	10	15.28		

WTR YR 1985 MAX 14.63 MAR 31 MIN 16.23 SEP 14

a Measured water level.

413148071281601. North Kingstown well NKW 255.
LOCATION.--Lat 41°31'48", long 71°28'16", Hydrologic Unit 01090004, town of North Kingstown, 100 ft east of Pendar Road, 0.6 mi south of intersection of Pendar and Tower Hill Roads, and 1.0 mi south of Allenton.
Owner: Carlton Cook.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 14 ft, cased with concrete to 14 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 50 ft. Measuring point: Top edge of casing on west rim of well, at land-surface datum.
PERIOD OF RECORD.--August 1954 to December 1963, January 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.81 ft below land-surface datum, Mar. 26, 1968; lowest measured, 13.03 ft below land-surface datum, Oct. 26, 1981.

WATER LEVELS 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 28	9.33	JAN 26	9.56	APR 21	9.56	JUL 28	9.94
NOV 23	9.59	FEB 25	9.73	MAY 25	9.38	AUG 24	10.29
DEC 22	9.11	MAR 25	8.88	JUN 22	9.72	SEP 23	8.55

WASHINGTON COUNTY--Continued

413308071280501. North Kingstown well NKW 450.
LOCATION.--Lat 41°33'08", long 71°28'05", Hydrologic Unit 01090004, town of North Kingstown, at 890 Tower Hill Road in Belleville, and 0.35 mi north of intersection of alternate U.S. Highway 1 and West Allenton Road.
Owner: Richard S. Bannister.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in, depth 17 ft, cased with concrete to 17 ft, open end.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 60 ft. Measuring point: Hole in top of wooden base, 2.80 ft above land-surface datum.
PERIOD OF RECORD.--October 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.32 ft below land-surface datum, Apr. 23, 1983; lowest measured, well dry several times in water years 1981-82, 1984.

WATER LEVELS 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 27	14.45	JAN 26	14.60	APR 21	13.97	JUL 28	14.69
NOV 23	14.60	FEB 25	14.54	MAY 25	14.15	AUG 24	14.80
DEC 22	14.90	MAR 25	13.88	JUN 22	14.42	SEP 21	13.65

412717071415301. Richmond well RIW 231.
LOCATION.--Lat 41°27'17", long 71°41'53", Hydrologic Unit 01090005, town of Richmond, about 50 ft west of Narragansett Trail, and 1.2 mi north of Wood River Junction.
Owner: N. D. MacLeod.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 29 ft, lined with stone to 29 ft, shored.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 84 ft. Measuring point: Hole in top of concrete cover, 0.06 ft above land-surface datum.
PERIOD OF RECORD.--May 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.38 ft below land-surface datum, May 21, 1983. Dry several times in water years 1965-67, 1977, 1981-82.

WATER LEVELS 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 27	24.73	JAN 26	26.67	APR 21	26.84	AUG 24	28.04
NOV 23	25.57	FEB 25	27.14	JUN 22	27.68	SEP 21	26.16
DEC 22	26.17	MAR 25	27.08	JUL 28	27.89		

412932071374302. Richmond well RIW 417.
LOCATION.--Lat 41°29'32", long 71°37'43", Hydrologic Unit 01090005, town of Richmond, about 50 ft south of State Highway 138, about 75 ft west of Beaver River, and 3.3 mi north of Kenyon.
Owner: State Department of Transportation.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 40 ft, cased to 37 ft, screened 37 to 40 ft.
INSTRUMENTATION.--Continuous graphic recorder.
DATUM.--Land-surface datum is 115.56 ft, above National Geodetic Vertical Datum of 1929. Measuring point: Floor of recorder shelter, 0.65 ft above land-surface datum.
REMARKS.--Water level affected by stage of nearby Beaver River.
PERIOD OF RECORD.--December 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.08 ft below land-surface datum, Apr. 25, 1983; lowest, 8.02 ft below land-surface datum, Oct. 3, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
HIGH FOR DAY

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	7.51	JAN 15	7.41	APR 21	a7.07	JUL 25	7.42
10	7.59	20	7.45	25	7.08	28	a7.40
15	7.62	26	a7.50	30	7.14	31	7.46
20	7.65	31	7.51	MAY 05	6.87	AUG 05	7.48
25	7.59	FEB 05	7.52	10	6.99	10	7.43
28	a7.60	10	7.53	15	6.98	15	7.55
31	7.49	15	7.24	20	7.01	20	7.60
NOV 05	7.56	20	7.35	25	a7.02	24	a7.66
10	7.60	25	a7.36	31	7.00	25	7.59
15	7.49	28	7.36	JUN 05	7.02	31	5.58
20	7.57	MAR 05	7.25	10	7.05	SEP 05	5.96
23	a7.62	10	7.26	15	7.13	10	5.87
25	7.62	15	7.81	20	7.08	15	6.06
30	7.62	20	7.84	22	a7.18	20	6.25
DEC 05	7.60	25	6.88	25	7.18	21	a6.30
22	a7.32	31	6.91	30	7.10	25	6.35
25	7.34	APR 05	6.90	JUL 05	7.20	30	6.50
31	7.37	10	6.93	10	7.28		
JAN 05	7.37	15	6.99	15	7.36		
10	7.39	20	7.04	20	7.37		

WTR YR 1985 MAX 5.58 AUG 31 MIN 7.84 MAR 20

a Measured water level.

WASHINGTON COUNTY--Continued

412844071422802. Richmond well RIW 600.
LOCATION.--Lat 41°28'44", long 71°42'28", Hydrologic Unit 01090005, town of Richmond, about 50 ft west of Hope Valley Road, and 1.5 mi northeast of Woodville.
Owner: State Department of Transportation.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in, depth 54 ft, cased to 49 ft, screened 49 to 54 ft.
INSTRUMENTATION.--Continuous graphic recorder.
DATUM.--Land-surface datum is 100.17 ft, above National Geodetic Vertical Datum of 1929. Measuring point: Floor of recorder shelter, 2.68 ft above land-surface datum.
PERIOD OF RECORD.--September 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.42 ft below land-surface datum, June 11, 1982; lowest, 35.94 ft below land-surface datum, Feb. 2, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
HIGH FOR DAY

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	34.50	DEC 31	34.50	APR 10	34.03	JUL 10	34.40
10	34.55	JAN 05	34.48	15	34.07	15	34.48
15	34.60	10	34.50	20	34.11	20	34.52
20	34.66	15	34.51	21	a34.12	25	34.58
25	34.69	20	34.54	25	34.15	28	a34.61
27	a34.71	26	a34.60	30	34.20	31	34.63
31	34.70	31	34.63	MAY 05	34.13	AUG 05	34.65
NOV 05	34.73	FEB 05	34.64	10	34.12	10	34.65
10	34.73	10	34.64	15	34.16	15	34.70
15	a34.62	15	34.50	20	34.20	20	34.77
20	34.59	20	34.49	25	a34.21	24	a34.87
23	34.62	25	a34.50	31	34.23	25	34.86
25	34.63	28	34.49	JUN 05	34.24	31	34.40
30	34.67	MAR 05	34.48	10	34.25	SEP 05	33.53
DEC 05	34.67	10	34.46	15	34.29	10	33.25
10	34.58	15	34.24	20	34.29	15	33.20
15	34.59	20	34.07	22	a34.33	20	33.24
20	34.61	25	34.03	25	34.34	21	a33.27
22	a34.57	31	34.03	30	34.35	25	33.32
25	34.53	APR 05	34.01	JUL 05	34.36	30	33.40

WTR YR 1985 MAX 33.20 SEP 15 MIN 34.87 AUG 24

a Measured water level.

412918071321001. South Kingstown well SNW 6.
LOCATION.--Lat 41°29'18", long 71°32'10", Hydrologic Unit 01090005, town of South Kingstown, at northwest corner of Mead Field at University of Rhode Island, and 0.9 mi northwest of Kingston.
Owner: University of Rhode Island.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water table well, diameter 10 in, depth 34 ft, cased to 34 ft, open end.
INSTRUMENTATION.--Continuous graphic recorder.
DATUM.--Land-surface datum is 111.89 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of recorder shelter, 0.57 ft above land-surface datum (since July 12, 1973).
RECORD OF PERIOD.--November to December 1947, February 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.91 ft below land-surface datum, Apr. 25, 26, 1983; lowest, 15.06 ft below land-surface datum, Dec. 29, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
HIGH FOR DAY

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	12.77	JAN 20	13.37	APR 21	a12.97	JUL 20	13.39
10	12.90	26	a13.58	25	13.03	25	13.48
15	13.04	31	13.67	30	13.14	28	a13.40
20	13.18	FEB 05	13.75	MAY 05	13.12	31	13.39
25	13.29	10	13.81	10	13.05	AUG 05	13.38
28	a13.33	15	13.54	15	13.06	10	13.38
NOV 23	a13.57	20	13.51	20	13.07	15	13.43
25	13.58	25	a13.51	25	a13.08	20	13.51
30	13.66	28	13.50	31	13.11	24	a13.61
DEC 05	13.73	MAR 05	13.53	JUN 05	13.13	25	13.62
10	13.47	10	13.46	10	13.13	31	11.73
15	13.52	15	12.92	15	13.18	SEP 05	11.50
20	13.59	20	12.75	20	13.20	10	11.36
22	13.60	25	12.68	22	a13.24	15	11.35
25	14.49	31	12.69	25	13.25	20	11.45
31	13.44	APR 05	12.72	30	13.27	21	a11.49
JAN 05	13.41	10	12.75	JUL 05	13.27	25	11.58
10	13.40	15	12.84	10	13.33	30	11.71
15	13.35	20	12.94	15	13.37		

WTR YR 1985 MAX 11.35 SEP 15 MIN 14.49 DEC 25

a Measured water level.

WASHINGTON COUNTY--Continued

412923071361601. South Kingstown well SNW 515.
LOCATION.--Lat 41°29'23", long 71°36'16", Hydrologic Unit 01090005, town of South Kingstown, at Laurel Lane Golf Course, 2.7 mi west of West Kingston.
Owner: R. R. Holley.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in, depth 30 ft, lined with stone to 30 ft, shored.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Land-surface datum is 127.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of concrete casing on south rim of well, 2.11 ft above land-surface datum. Dec. 27, 1975, to Apr. 25, 1981, measuring point 1.61 ft lower.
PERIOD OF RECORD.--May 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.73 ft below land-surface datum, Apr. 23, 1983, Dry several times in water years 1978, 1980-85.

WATER LEVELS 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 28	DRY	JAN 26	28.54	APR 21	27.98	JUL 28	28.34
NOV 23	DRY	FEB 25	28.64	MAY 25	27.99	AUG 24	DRY
DEC 22	28.59	MAR 25	DRY	JUN 22	28.24	SEP 21	26.60

412154071462901. Westerly well WEW 522.
LOCATION.--Lat 41°21'54", long 71°46'29", Hydrologic Unit 01090005, town of Westerly, 350 ft northwest of intersection of Pound and Old Shore Roads and 1.0 mi north of Dunn Corner.
Owner: S. Panciera.
AQUIFER.--Sand and gravel of Pleistocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 30 in, depth 16 ft, lined with stone to 16 ft, shored.
INSTRUMENTATION.--Monthly measurement with chalked tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 45 ft. Measuring point: Southwest corner of stone casing, 0.91 ft above land-surface datum.
PERIOD OF RECORD.--January 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.23 ft below land-surface datum, Apr. 23, 1983; lowest measured, 14.61 ft below land-surface datum, Sept. 24, 1980.

WATER LEVELS 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 27	13.41	JAN 26	13.20	APR 21	12.74	JUL 28	13.43
NOV 23	13.26	FEB 25	12.82	MAY 25	12.67	AUG 24	13.87
DEC 22	13.03	MAR 25	12.09	JUN 22	12.87	SEP 21	12.07

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☆ U.S. GOVERNMENT PRINTING OFFICE:1987-702-243

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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